

Working Paper

**The Bush Administration's Nuclear Strategy
and Its Implications for China's Security**

Tian Jingmei

March 2003

Dr. Tian Jingmei is an associate professor at the Arms Control Research Division of the Institute of Applied Physics and Computational Mathematics (IAPCM) in Beijing. In 2001–2002, she was a visiting fellow at the CISAC as part of the Project on Peace and Cooperation in the Asian-Pacific Region.

The Center gratefully acknowledges Marjorie Kiewit, the John D. and Catherine T. MacArthur Foundation, and the W. Alton Jones Foundation for their support of this research.

The opinions expressed here are those of the author and do not represent positions of the Center, its supporters, or Stanford University.

© 2003 by the Board of Trustees of the Leland Stanford Junior University

Contents

Introduction	1
Trends of the Bush Administration's Nuclear Strategy	2
Emphasizing the War-Fighting Role of Nuclear Weapons	2
Pursuing Full-Spectrum Deterrence	4
Constructing the New Triad of Deterrent Forces	5
Nuclear and Non-nuclear Offensive Strike Forces	5
Missile Defense Systems	5
Responsive Defense Infrastructure	6
Developing Low-Yield Earth-Penetrating Nuclear Weapons	7
Pursuing a Unilateralist Policy on Nuclear Arms Control	8
Unilateral Withdrawal from the ABM Treaty	8
Unilateral Reduction of Nuclear Weapons	9
Opposition to the CTBT and Readiness for Nuclear Testing	9
Implications of the Bush Administration's Strategy for China's Security	12
America Regards China as a Possible Target of a Nuclear Strike	12
Use of Nuclear Weapons to Defend Taiwan Threatens China's Core Security	13
The New Triad Weakens the Effectiveness of China's Nuclear Deterrent Forces	14
A Unilateralist Arms Control Policy Denies China's Chance to Restrict America	15
Conclusion	17
Notes	18

Acknowledgments

I would like to acknowledge my warm appreciation of various assistance I have received in producing this paper. I express my thanks to Professor John W. Lewis for his support of my research project and his support for publishing my working paper. I record my deep gratitude to Professors W. K. H. Pannofsky and Michael M. May for their comments on my working paper. I thank Carole Hyde for valuable aid given in connection with publication of my working paper.

Introduction

Since the Bush administration took office, and especially since excerpts of the *Nuclear Posture Review* were released, there have appeared in America some heated arguments about the Bush administration's changes to the Clinton administration's nuclear strategy, what consequences these changes would produce, and what influences they would exert on international and regional security. Different people have different views. The purpose of this working paper is to find solutions to these key issues. The effects of the Bush administration's nuclear strategy on China's security are also discussed.

The main viewpoint of the working paper is that the Bush administration has made the most fundamental adjustments to America's nuclear strategy since the end of the Cold War. These adjustments greatly modify U.S. nuclear deterrent strategy, the country's policy on using nuclear weapons, the triad of deterrent forces structure, and nuclear arms control policy. The new nuclear strategy would upset a balance of forces and stability regionally and around the globe. Moreover, the United States is shifting the focus of military strategy from Europe to Asia. This would exert significant influences on Asian-Pacific regional security and China's security.

Trends of the Bush Administration's Nuclear Strategy

During his campaign for president, George W. Bush began a scathing attack on the Clinton administration's nuclear strategy. He said that although a decade had passed since the end of the Cold War, U.S. nuclear policy still resided in that already distant past and remained locked in a Cold War mentality.¹ After taking office, President Bush directed (Congress also mandated) the Department of Defense to review U.S. nuclear strategy from the bottom up. Excerpts from the classified *Nuclear Posture Review* were submitted to Congress in December 2001 and later leaked to the public.² The review is considered a comprehensive blueprint for developing and deploying nuclear weapons.

The new nuclear strategy moves away from the "threat-based" strategy that dominated America's defense planning for nearly half a century and adopts a new "capabilities-based" approach—one that focuses less on who might threaten the United States, from where, and more on how it might be threatened and what is needed to deter and defend against such threats.³ The nuclear deterrent of mutually assured destruction is replaced by the full-spectrum deterrent of unilaterally assured destruction. The Cold War Triad completely dependent on offensive nuclear forces—composed of land-based intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs), and long-range nuclear-armed bombers—becomes the New Triad of nuclear and non-nuclear offensive strike forces, missile defense systems, and a responsive defense infrastructure. Multilateral cooperation in the field of nuclear arms control gives way to a unilateral approach. More important, the new nuclear strategy highlights the war-fighting role of nuclear weapons and considers developing a new low-yield nuclear weapon and resuming nuclear testing.

In the face of U.S. nuclear strategy adjustments, some countries will have to shift their own nuclear or military strategy, developing stronger nuclear forces or acquiring weapons of mass destruction. This would cause a chain reaction, demolishing regional and global stability and peace. This could not increase but would decrease America's security.

Emphasizing the War-Fighting Role of Nuclear Weapons

During the Cold War, nuclear weapons had a dual role in American military strategy. One

role was to deter a Soviet nuclear attack on the United States and to deter a Warsaw Pact conventional attack on European allies by convincing the Soviet Union that doing so would result in unacceptable consequences. The other role of nuclear weapons was war-fighting. The resolution to use nuclear forces—that is, nuclear war-fighting—is also an important element of nuclear deterrence.⁴ In essence, the goal of America's nuclear strategy was to avoid the use of nuclear weapons and the breakout of nuclear war between the United States and the Soviet Union, because both sides had nuclear forces whose use would result in mutually assured destruction. Under that condition, the United States and the Soviet Union were unlikely to really reduce their nuclear weapons. Instead, the total number of nuclear weapons grew and grew, reaching a vastly excessive level. The world was in the shadow of nuclear war.

The collapse of the Soviet Union and the end of the Cold War significantly changed the international security environment. Accordingly, the Clinton administration reassessed U.S. nuclear strategy. The *Nuclear Posture Review* approved by President Bill Clinton on September 18, 1994, concluded that nuclear weapons were playing a smaller role in U.S. security than at any other time in the nuclear age, and thus the United States required a much smaller nuclear arsenal.⁵ Subsequently, President Clinton endorsed the Presidential Decision Directive PDD/NSC 60 in November 1997, formally abandoning the nuclear guidelines issued by the Reagan administration in 1981, which said that the United States must be prepared to fight and win a protracted nuclear war. The PDD operated from the premise that the primary role of nuclear weapons in the post-Cold War era was deterrence.⁶ As a result, the United States reduced its nuclear arsenal on a large scale and pushed the process of international nuclear arms control.

However, the Bush administration plans to change the former administration's policy on nuclear weapons, emphasizing their war-fighting role. According to the classified *Nuclear Posture Review*, which was leaked to the media, the United States could use nuclear weapons first against China, Russia, Iraq, North Korea, Iran, Libya, and Syria; in an Arab-Israeli conflict; in a war between China and Taiwan; and in an attack by North Korea on South Korea. And it could use nuclear weapons in three types of situations: against targets able to withstand non-nuclear attack; in retaliation for attack with nuclear, biological, or chemical weapons; and in the event of surprising military development.⁷ Later, President Bush in a speech at West Point stressed, "We must take the battle to the enemy, disrupt his plan, and confront the worst threats before they emerge."⁸ This implies that President Bush may be willing to use nuclear weapons not only in retaliation for an attack by weapons of mass destruction but also to preempt such attacks.

These situations show that the Bush administration has expanded the range of use of nuclear weapons from nuclear weapon states to non-nuclear weapon states and has shifted the main role of nuclear weapons from deterrence to war-fighting. This breaks a decades-long taboo against the use of nuclear weapons except as a last resort, and it lowers the threshold for using nuclear weapons. Although increasing the war-fighting role of nuclear weapons would further strengthen the credibility and effectiveness of U.S. nuclear deterrence, it also would provoke other countries to pursue nuclear weapons because of their military value. This would increase the risk of nuclear weapons proliferation, thereby destabilizing regions and the world.

Pursuing Full-Spectrum Deterrence

Nuclear deterrence has been the core of America's nuclear strategy. Throughout the Cold War, an era of complete antagonism between the United States and the Soviet Union, the United States considered the Soviet Union its major enemy and a threat to its security. America's nuclear deterrence strategy was designed to deny a nuclear attack from the Soviet Union. Because both countries had enough retaliatory nuclear forces to destroy the other side after suffering a nuclear attack, the United States advanced a nuclear deterrent doctrine of mutually assured destruction in the 1960s. Since then, American security has depended heavily on the nuclear balance of terror. This strategy successfully deterred nuclear attacks and large-scale conventional attacks from the Soviet Union throughout the Cold War. However, it failed to deter an attack on the U.S. homeland by the al-Qaeda terrorist group in 2001. After September 11, 2001, the Bush administration concluded that the Cold War approach to deterrence, which was highly dependent on offensive nuclear weapons, is no longer appropriate.

The Bush administration thinks that a decade after the end of the Cold War, the international security environment has completely changed. "Today's Russia is not yesterday's Soviet Union," President Bush said. "Today's Russia is not our enemy."⁹ As the September 11 tragedy makes all too clear, the greatest threats to U.S. security come not from Russia or other world powers, but from terrorists who strike without warning or rogue states that seek weapons of mass destruction.¹⁰ The United States is more likely to suffer a nuclear, chemical, or biological attack from terrorists using ships, trucks, or airplanes than one from a foreign country using long-range missiles, according to a new U.S. intelligence estimate.¹¹ Moreover, the global security situation faced by the United States involves a great deal of uncertainty. The United States cannot and will not know with confidence what nation, combination of nations, or non-state actor will pose a threat to vital U.S. interests or those of U.S. allies and friends decades from now.¹² In the future, the United States will face multiple potential opponents, sources of conflict, and unprecedented challenges rather than a unilateral threat.

Accordingly, the Bush administration thinks that the United States should abandon the nuclear deterrent doctrine of mutually assured destruction, which defends against the unilateral threat of the Soviet Union, because it cannot deal with the wide variety of immediate and potential threats faced by the United States and cannot meet the new requirements of America's security. In my opinion, the Bush administration has other purposes for reducing the mutually assured destruction policy to historical ashes: it is unwilling to regard Russia as a peer power in bilateral and international affairs so as to highlight America's sole superpower status, and it makes a sound excuse for withdrawing from the Anti-Ballistic Missile (ABM) Treaty based just on mutually assured destruction.

In place of mutually assured destruction, the Bush administration is pursuing a full-spectrum deterrence that can effectively discourage and defeat a broad range of opponents that potentially threaten the United States, its allies, and friends, such as a rising regional power challenging the hegemony of the United States. To match the fundamental changes of America's nuclear deterrent strategy, the Bush administration is constructing a New Triad of strategic forces, comprising nuclear and non-nuclear offensive strike forces, missile defense systems, and a responsive defense infrastructure.

The new strategy, heavily dependent on a full range of weapons that potential enemies believe might be used against them, seems to be more credible and operative than the old doctrine of mutually assured destruction, which relied just on strategic offensive nuclear weapons. However, it blurs the distinction between nuclear deterrence and conventional deterrence. This is very risky. On one hand, this blurring could lead the United States to employ nuclear weapons. On the other hand, it is not easy for opponents to identify exactly when and under what conditions the United States would use nuclear deterrence or conventional deterrence in a crisis.

Constructing the New Triad of Deterrent Forces

With the fundamental change of U.S. nuclear deterrent strategy, the deterrent forces structure supporting this strategy needed to be adjusted. The Cold War Triad of offensive nuclear forces (composed of ICBMs, SLBMs, and long-range nuclear-armed bombers) has been replaced with the New Triad of nuclear and non-nuclear offensive strike forces, missile defense systems, and a responsive defensive infrastructure. The Cold War Triad is a three-legged subset of the New Triad.

Nuclear and Non-nuclear Offensive Strike Forces

The past offensive strike forces were formed of nuclear ICBMs, SLBMs, and bombers. The United States relied on them completely to deter threats and attacks from the Soviet Union. But the Bush administration thinks that pure offensive nuclear forces cannot deter the new multiple threats and adversaries that the United States faces in the 21st century, and that they cannot support the new full-spectrum deterrence. Therefore, U.S. offensive strike forces need to go beyond the Cold War Triad. In addition to retaining the Cold War Triad as a key part of the new deterrent strategy, the Bush administration places greater emphasis on advanced conventional weapons, especially long-range precision-guided conventional forces capable of destroying hard and deeply buried targets. Nuclear offensive forces and non-nuclear offensive forces constitute a key pillar of the New Triad that the Pentagon thinks can be used separately or combined in an attack. This combination can reduce dependency on nuclear forces to provide an offensive deterrent, provide greater flexibility in the design and conduct of military campaigns to defeat opponents decisively, and increase the credibility of deterrence to adversaries.

Missile Defense Systems

In the past, missile defense systems were considered impractical and destabilizing. However, the Bush administration thinks that U.S. nuclear forces alone may not deter threats to and attacks on the United States, its allies, and its friends. A new mix of offensive strike forces and defensive capabilities is required for the diverse set of potential adversaries and unexpected threats the United States may confront in the coming decades. Therefore, the administration attaches great importance to the development and deployment of missile defense systems and describes them as the second leg of the New Triad. The missile defense systems projected by

the Bush administration are to protect all 50 states, American friends and allies, and deployed forces overseas from missile attacks by rogue states or accidental launches. The systems will have the land-based, sea-based, and space-based capabilities to intercept ballistic missiles of any range in all phases of their flight, including the boost phase, the mid-course phase or after re-entering the atmosphere, and the terminal phase.

To build these systems, the United States withdrew from the ABM Treaty, removing legal obstacles to developing and deploying national missile defense systems. In addition, the administration not only increased the military budget for missile defenses but also intensified interceptive tests of ballistic missiles in order to employ effective missile defense systems at the earliest possible date. The deployment of missile defense systems will give the United States offensive and defensive strategic forces; that is, sharp spears and robust shields. Thus the United States can initiate a preemptive attack and intervene in global and regional affairs.

Responsive Defense Infrastructure

According to the Department of Defense, the U.S. defense infrastructure has contracted since the end of the Cold War, and its nuclear infrastructure has atrophied. With respect to nuclear infrastructure, it has identified shortfalls, such as solid rocket motor design, development, and testing; technology for current and future strategic systems; improved surveillance and assessment capabilities; command-and-control platforms and systems; and design, development, and production of radiation-hardened parts. Therefore, nuclear infrastructure needs to be repaired to increase confidence in the deployed forces. The military regards a responsive defense infrastructure as the third leg of the New Triad. It requires that this infrastructure allow new nuclear weapons to be developed much more quickly than the 15- to 20-year time frame that the United States is used to thinking about for the development of new systems.¹³ Maintaining a responsive nuclear infrastructure will enable the United States to restore the production of nuclear weapons and build new generations of nuclear weapons in a short time to support deployed nuclear forces and respond quickly to large strategic changes. Moreover, it will allow the United States to further reduce its nuclear arsenal and, at the same time, preserve its nuclear advantage and dissuade opponents from starting a competition in nuclear armaments. So, a responsive nuclear infrastructure is very critical to reducing the risks as the United States brings its operationally deployed nuclear weapons down to lower and lower levels.

Compared with the Cold War Triad, the New Triad provides America's president with a broader range of options, from larger and smaller nuclear weapons to advanced conventional weapons and missile defense systems, with which to dissuade, deter, and defeat a wider variety of threats to and adversaries of the United States. The New Triad reduces dependency on strategic offensive nuclear forces and reinforces the credibility and effectiveness of strategic deterrence.

But meanwhile, the New Triad blurs the distinctions between nuclear weapons and conventional weapons, making it likely that the United States would employ nuclear forces. The increase in military value of nuclear weapons would provoke non-nuclear weapon states to pursue nuclear weapons and thereby promote proliferation. Therefore, it is very risky for the United States to mix nuclear forces and conventional forces.

The United States has enjoyed absolute military superiority. It is speeding up deployment of missile defense systems. This would unbalance international and regional forces and weaken the framework of international and regional security. Some countries would do their best to restore a relative balance of forces by developing advanced offensive forces, causing their neighboring countries to do so. This would destabilize the world and the regions concerned. In turn, this would undermine U.S. security interests.

Developing Low-Yield Earth-Penetrating Nuclear Weapons

There have been debates about development of a new low-yield earth-penetrating nuclear weapon in the United States. Some hard-liners in government ministries and nuclear weapon laboratories have urged the American government to develop this kind of nuclear weapon, while some have opposed them. The 1994 Defense Authorization Act bars research and development that could lead to production of a new low-yield nuclear weapon by the United States. However, the Bush administration is reconsidering development of a low-yield nuclear weapon, although it has not yet made a decision to develop it.

In July 2001, the Departments of Defense and Energy completed initial studies on how nuclear weapons could be modified to attack hardened bunker complexes and buried tunnels that conventional weapons cannot destroy, but no decision has been made to go ahead with such a program. The decision on whether design work would begin on a new or modified nuclear weapon to go after hardened underground targets was expected in the long-awaited Bush administration's *Nuclear Posture Review*.¹⁴

The *Nuclear Posture Review* did not refer directly to development of a low-yield earth-penetrating nuclear weapon. But at the press briefing on the *Nuclear Posture Review*, J. D. Crouch, assistant secretary of defense for international security policy, said, "We are trying to look at a number of initiatives," including modifying existing nuclear weapons to give them "greater capability against . . . hard targets and deeply buried targets," such as command-and-control and weapons-storage bunkers.¹⁵ And the Bush administration, in its February budget request for 2003, requested funds for both feasibility and cost studies for a "robust nuclear earth penetrator."¹⁶ Most important, the *Nuclear Posture Review* definitely stressed a need to develop low-yield earth-penetrating nuclear weapons to defeat hard and deeply buried targets that may be nuclear, chemical, and biological weapon stockpiles; ballistic missile silos; or command-and-control centers.¹⁷

Once leaked, this classified review surprised the world and provoked a strong response from the United States and the international community. Subsequently, on the CBS News Program "Face the Nation," Secretary of State Colin L. Powell said, "We are not developing brand-new nuclear weapons."¹⁸ Although the United States is not developing a low-yield earth-penetrating nuclear weapon right now, the possibility that it will develop one in the future cannot be excluded.

According to the review, America's conventional weapons are not effective for the long-term physical destruction of deep underground facilities, and the only earth-penetrating nuclear weapon, the B61 Mod 11, currently has a very limited ground-penetration capability. Conventional weapons are inadequate replacements for nuclear weapons because they do not

have the same destructive power. As a result, the United States now lacks adequate means to destroy hardened and deeply buried facilities.

Large nuclear arms have so many destructive side effects, from blast to heat and radiation, that they become “self-deterring.” Some officials and nuclear experts think that the low-yield nuclear weapons could penetrate deep into the earth before detonating so as to limit collateral damage and lethal fallout, making them acceptable tools to be used like conventional weapons. Accordingly, they have urged the U.S. government to build a new generation of precision low-yield nuclear weapons.¹⁹ Some officials and experts hold a completely different opinion.²⁰

The review estimates that there are more than 1,000 underground facilities that are known or suspected strategic sites (weapons of mass destruction, ballistic missile basing, leadership or top echelon command and control). Most of the strategic facilities are deep underground. These are generally the most difficult to defeat because of the depth of the facilities and the uncertainty of their exact location.²¹ It is necessary to develop smaller earth-penetrating nuclear weapons to be able to destroy them.

The American war in Afghanistan, where troops are trying to bomb and destroy caves where Osama bin Laden and his al-Qaeda base network may be holed up, and American campaigns against rogue states, which involve trying to prevent them from seeking weapons of mass destruction, increase the urgency and necessity of developing this sort of low-yield earth-penetrating nuclear weapon.

As some nuclear experts said, the new weapons would blur the distinction between nuclear and conventional weapons, and eliminate the firebreak between nuclear and conventional war. This would lower the threshold for using nuclear weapons. Development of this kind of nuclear weapon could signal that the Bush administration is more willing to break a long-standing nuclear taboo against the use of nuclear weapons except as a last resort. It may send a message to developing states that nuclear weapons are militarily useful, leading them to pursue nuclear weapons. This would not be beneficial to global security and stability.

Pursuing a Unilateralist Policy on Nuclear Arms Control

Nuclear arms control is an integrated and supportive part of U.S. nuclear strategy. In keeping with the change in nuclear strategy, the Bush administration has abandoned the nuclear arms control policy of the Clinton administration, which pushed nuclear disarmament by international treaty or multilateral cooperation. Instead, it has pursued a unilateral approach to nuclear arms control.²²

Unilateral Withdrawal from the ABM Treaty

President Bush announced on December 13, 2001, that the United States would unilaterally withdraw from the landmark 1972 Anti-Ballistic Missile Treaty. The treaty, he indicated, hindered the government’s ability to develop ways to protect its people from future terrorist or rogue state missile attacks and blocked necessary testing of strategic anti-missile technologies and eventual development of land-, sea-, and space-based strategic missile defenses. On June 13, 2002, he stated that that withdrawal formally took effect.

Bush's decision to withdraw from the ABM Treaty is not all that surprising. It is but the latest in a series of unilateralist approaches to arms control; he also rejected an international agreement to enforce the Biological Weapons Convention and boycotted international consultations on the Comprehensive Test Ban Treaty (CTBT). It is the first time a nation has openly withdrawn from the international arms control treaty. Bush's withdrawal may set a very dangerous precedent for those countries reluctant to bear limitations set by the treaty. Moreover, it certainly undermines efforts to curb the spread of ballistic missiles and nuclear, chemical, biological weapons, an issue that has become more urgent since September 11, 2001. It will also negatively affect U.S.–Chinese relations and U.S.–Russian relations.²³

Unilateral Reduction of Nuclear Weapons

President Bush has advocated unilateral reduction of nuclear weapons since his campaign for president. He announced on November 13, 2001, that the United States would drop its strategic nuclear arsenal to between 1,700 and 2,200 operationally deployed warheads. “We are trying to achieve these reductions without having to wait for Cold War arms control treaties,” said Assistant Defense Secretary Crouch.²⁴

Although President Vladimir Putin of Russia and President Bush signed the Strategic Offensive Reductions Treaty (SORT) on May 24, 2002, it is not a real bilateral arms control treaty like START I and START II, which were concluded after many years of bilateral negotiations and bargaining. The treaty is largely based on America's unilateral interests and requirements. The reductive number of strategic nuclear weapons is not 1,500 warheads as desired by President Putin but 1,700–2,200 warheads as determined by President Bush. Additionally, the warheads removed from operationally deployed strategic forces are not all destroyed as per Russian suggestion but, according to American requirements, are partially allocated to the responsive forces that could be used to augment deployed nuclear forces within weeks, months, or years should the need arise.

The Bush administration's reduction of strategic nuclear forces is reversible, unlike one during Clinton administration that required the destruction of warheads in the START III framework. In my opinion, this kind of reduction, especially when U.S. intentions of developing a low-yield nuclear weapon are considered, is at most an adjustment of the U.S. nuclear force structure, not a real nuclear disarmament.

Opposition to the CTBT and Readiness for Nuclear Testing

President Bush supported the Senate's decision in 1999 not to ratify the Comprehensive Test Ban Treaty. In November 2001, the Bush administration boycotted a United Nations conference convened to encourage international support for the CTBT. The boycott “fits a pattern of unilateralist nonengagement that is becoming the hallmark of the Bush administration's arms control policy,” said Daryl G. Kimball of the Arms Control Association.²⁵ Crouch explicitly stated in January 2002, “We continue to oppose the Comprehensive Test Ban Treaty.”²⁶

The *Nuclear Posture Review* said that the United States needs to maintain readiness, if required, to resume underground nuclear testing at the Nevada test site in less time than the two years it would now take under Energy Department guidelines.²⁷ Although Secretary of

State Powell denied any plans for either renewed nuclear testing or new weapons development, some people have doubts.²⁸ Although the Bush administration is not planning to conduct nuclear tests now, it is probably making preparations for resuming nuclear tests if national security requires them.

Safeguarding the nuclear stockpile might require conducting nuclear tests. The Departments of Defense and Energy have identified defects in current nuclear arsenals. As outlined in a report sent to Energy Secretary Spencer Abraham on December 21, 2001, and made public on January 2, 2002, the Energy Department's inspector general, Gregory H. Friedman, has determined that growing problems associated with the safety and reliability of the nation's nuclear weapons, because of the lack of nuclear testing, have become a serious challenge for the newly established National Nuclear Security Agency, which runs the weapons complex.²⁹ Some leaders and experts of nuclear weapons laboratories hold the same opinion.³⁰

As its nuclear weapons arsenal gets smaller, the United States will pay more attention to the safety and reliability of remaining nuclear weapons. "The option to resume testing must continue," said Richard Perle, chairman of the Pentagon's Defense Policy Board, which has been advising Defense Secretary Donald H. Rumsfeld on broad military matters.³¹ Senator John W. Warner, ranking Republican on the Senate Armed Services Committee, also noted, "If the surveillance testing program cannot do the job, we will have to resume testing to make sure our nuclear weapons work."³² Crouch explicitly claimed, "[The] DOE is planning on accelerating its test-readiness program."³³

Developing a new low-yield earth-penetrating nuclear weapon may require the resumption of nuclear testing. Some nuclear weapon experts think that they could design and develop a new generation of nuclear weapons without nuclear testing. But they could not certify the expected effectiveness of a new weapon based only on a very limited nuclear test database. It seems highly unlikely that a warhead capable of destroying a deeply buried and hardened bunker could be deployed without full-scale testing.³⁴

The Bush administration's opposition to the CTBT will certainly hinder the earlier efforts of the CTBT as supported by the United States for a few decades. Preparing to resume nuclear testing would lead other states to do so. If the United States conducts nuclear testing someday, other nuclear weapon or non-nuclear weapon states would follow. This is not beneficial to American and international efforts to stop the proliferation of weapons of mass destruction, decreasing rather than increasing U.S. national security.

The Bush administration's unilateralist approach to nuclear arms control has been severely criticized by people from the United States and other countries. Some arms control experts and scholars originally expected the September 11 event and its aftermath to put an end to the unilateralist policy on nuclear arms control because the United States needs international cooperation against terrorist groups and against proliferation of nuclear weapons. However, the Bush administration has not abandoned unilateralism and will not easily give it up in the future.³⁵ The United States has absolute military superiority and is the sole global superpower in the post-Cold War world. This lays the foundation for its unilateralist policy.

Unilateralism toward nuclear arms control is not bound by a treaty or an international law. It provides the United States with flexibility and the legal right to rebuild or reduce nuclear weapons and pursue an absolute military advantage.³⁶ The United States thinks that

the quantity and quality of its nuclear forces are second to none. Its losses and limits in the arms control negotiations and treaties are more than those of other countries.

Negotiating or concluding a treaty takes a couple of years or even decades. The conditions that require a treaty then continue unnecessarily. A unilateralist approach would overcome this.

Implications of the Bush Administration's Strategy for China's Security

The Bush administration's new nuclear strategy could break the relative balance of international and regional forces, and destroy existing international and regional security structures. Especially, the United States shifts military strategic focus from Europe to Asia and regards China as a major potential threat to its security interests in East Asia. These factors would naturally significantly affect China's security.

America Regards China as a Possible Target of a Nuclear Strike

In the *Nuclear Posture Review* report, the United States indicates it considers China a potential target of a nuclear strike. This prompted great surprise and concern from the Chinese government and people. Subsequently, Chinese Foreign Ministry spokespersons, at many press conferences, said repeatedly that China was deeply shocked by the report from the U.S. Department of Defense, which includes China among the seven nations listed as targets of a possible nuclear strike. China holds the United States responsible for an explanation.³⁷ Some Chinese scholars also published articles to strongly condemn the U.S. nuclear strike plan.³⁸ They saw this as a great threat to China's security. China should keep a close eye on the American nuclear war plan.

The United States regards China as a target because it considers China a major potential threat to its global security interests in the 21st century. The number one enemy of the United States for decades, the Soviet Union, suddenly collapsed in the early 1990s. From then on, the United States has been seeking a new threat and rival. Because of China's reformation and opening up, its economic and military capabilities have increased greatly and quickly. The rise of China has drawn attention and concern from the United States.³⁹ Some politicians and scholars regard the rise of China as a challenge to U.S. security interests.⁴⁰ They think that the rise of China as a great power would require revising existing international and regional systems. This would pose major challenges for America's security interests in the Asian-Pacific region and even the globe, as did other rising powers in history, such as Nazi Germany, Imperial Japan, and the Soviet Union.

Although some people in the United States hold an opposite view,⁴¹ it is evident that hardliners on China have the upper hand in the Bush administration. The Bush administration considers China a strategic competitor, not a strategic partner. In its view, China could pose a major threat to American security in the future.

The United States and China have greatly different political systems, ideologies, and social value concepts, embodying the root of contradiction and conflict between the two sides. China has had and is modernizing strategic nuclear forces to be able to attack the American homeland. According to a National Intelligence estimate, Chinese ballistic missile forces will increase to around 75–100 warheads deployed primarily against the United States by 2015.⁴²

Thanks to development of its economy, buildup of its military strength, and increase of political position, China will certainly become a power state in the future. It could challenge the United States in Asia and even the world.

With its increase in military forces, China might use force to reunify Taiwan. This could lead to a military conflict between the United States and China. “Due to the combination of China’s still developing strategic objectives and its ongoing modernization of its nuclear and non-nuclear forces, China is a country that could be involved in an immediate or potential contingency,” said the review; “current examples of immediate contingencies include . . . a military confrontation over the status of Taiwan.”⁴³

Use of Nuclear Weapons to Defend Taiwan Threatens China’s Core Security

Fundamental interests of the Chinese nation include settling the Taiwan issue and completely reunifying China, reiterates the Chinese government.⁴⁴ America’s using nuclear weapons and nuclear deterrence to defend Taiwan would hinder Chinese reunification and damage China’s core security interest, which is safeguarding the state’s sovereignty, unity, territorial integrity, and security.

American governments have provided Taiwan military and political safeguards for decades. The Bush administration further increases military and political support for Taiwan. In April 2001, President Bush announced that the United States would sell Taiwan up to eight diesel submarines and four Kidd-class guided-missile destroyers, which obviously heightened its arms sale level to Taiwan. Moreover, the Bush administration permitted Taiwan’s defense minister, Tang Yiau-ming, to attend the March 11, 2002, U.S.–Taiwan Business Council meeting in Florida, which was the first time a senior Taiwanese defense official was allowed to visit the United States since Washington broke diplomatic relations with Taiwan and recognized China in 1979. President Bush in April 2001 stated that the United States will do “whatever it takes” to defend Taiwan from military strikes by China.

What is more, the *Nuclear Posture Review* calls for the Pentagon to prepare emergency plans to use nuclear weapons against China in a war between China and Taiwan. This, combined with America’s plans to use nuclear weapons to deter China from reunifying Taiwan in the two Taiwan Strait crises of the 1950s, is a very dangerous signal that the United States is considering employing nuclear weapons to defend Taiwan in a Taiwan Strait conflict and war.

Additionally, the United States is likely to sell missile defense systems to Taiwan. Admiral Dennis Blair, commander of U.S. forces in the Pacific, told reporters in Hong Kong in April 2002 that the United States is committed to maintaining a stable military balance through providing arms to Taiwan, and that when the military balance shifts in favor of China, “I’m sure there will be consideration of missile defenses for Taiwan.”⁴⁵ A missile defense system is the first step toward the reestablishment of a military alliance between the United States and Taiwan. It is different from other weapons systems because bilateral military cooperation is necessary in early warning satellites and long-range ground-based radar. This will lead Taiwan to depend highly on the United States and at the same time cause the United States to assume certain obligations to defend Taiwan.

Without doubt, American actions mentioned above would further the trend toward Taiwan’s independence. America’s safeguarding Taiwan by use of nuclear weapons and defense systems would further increase Taiwan’s military relations with the United States and even Japan, and integrate Taiwan’s military forces into American and Japanese military forces. Therefore, Taiwan’s security interests are closely connected with their security interests. Taiwan’s leader, Chen Shuibian, said in an interview with *The Washington Times* in July 2001 that Taiwan, the United States, and Japan should join forces to develop regional defenses against the growing Chinese missile threat.⁴⁶

With regard to politics, America’s safeguarding of Taiwan could lead Taiwan’s current political leaders, who are strongly independence-minded, to believe that if military conflict between China and Taiwan breaks out, the United States would not hesitate to use nuclear weapons against China. This would encourage those leaders to move toward independence and would interfere with reunification of the motherland.

The New Triad Weakens the Effectiveness of China’s Nuclear Deterrent Forces

China has always kept the number of its nuclear weapons at a low level. It is estimated by America’s intelligence community that China currently has about 20 land-based intercontinental ballistic missiles (ICBMs) that can reach targets in the United States.⁴⁷ Although its strategic nuclear forces are small and limited, China could launch a retaliatory nuclear counterstrike after suffering America’s first nuclear strike, which could effectively deter the United States from attempting a preemptive nuclear attack. However, China’s limited nuclear deterrent forces against the United States would be weakened greatly by America’s New Triad, composed of nuclear and non-nuclear offensive strike forces, missile defense systems, and a responsive defensive infrastructure.

As a leg of the New Triad, U.S. missile defense systems themselves are enough to reduce China’s existing nuclear deterrent capability. The Bush administration is attempting to build a national missile defense system that would have the land-based, sea-based, and space-based capabilities to intercept ballistic missiles of any range in all phases of their flight—the boost phase, the mid-course phase, and the terminal phase. And the United States will deploy 100 interceptors in Alaska to defend against an attack by a few tens of missiles with simple countermeasures in the first phase. Under this condition, China’s ICBMs, which are silo-based, liquid-propellant,

and contain single nuclear warheads, would be downgraded or negated by America's national missile defense.

Although America's government publicly claims that the purpose of deploying a national missile defense (NMD) system is to defend against rogue states but not China, many Chinese experts maintain that the United States is using the missile threat from the rogue states as a pretext to develop and deploy NMDs, while its actual purpose is to contain China.⁴⁸ No matter how the Bush administration explains its motivations for deploying NMDs, there is no denying the fact that America's NMDs would have the ability to intercept and defend against China's ICBMs. The NMD system is now designed to intercept 20–100 warheads. China has just 20–100 warheads. "China is opposed to NMD, because it would compromise China's security," said Sha Zukang, China's former arms control ambassador.⁴⁹

The Bush administration also attaches great importance to advanced conventional strike forces, especially long-range precision-guided conventional weapons, because they can destroy hard and deeply buried targets. These weapons manifested their tremendous strength in the Persian Gulf and Kosovo wars. It is very possible that the United States would not use strategic offensive nuclear forces but would use long-range precision-guided conventional weapons to attack China's missile launch silos and underground command-and-control centers. These conventional weapons would destroy China's existing nuclear second-strike capability like U.S. missile defense systems would.

Most important, these sorts of conventional weapons would pose a serious challenge to China's no-first-use nuclear policy; since the first day it had nuclear weapons, China has unilaterally undertaken not to be the first to use nuclear weapons and not to use or threaten to use nuclear weapons against non-nuclear-weapon states. Under this nuclear policy, China cannot use nuclear weapons to defend itself from a conventional attack from the United States, even if it's on China's nuclear weapons facilities and missile launch sites. This is a great threat to China's security. So, some have suggested that China modify the no-first-use policy.⁵⁰

The New Triad would provide the United States with not only offensive strike capability but also missile defense capability against China. This would reduce China's nuclear retaliatory capability to impotence and thus neutralize China's limited nuclear deterrent forces. Thus the United States would be less cautious about drifting into a Taiwan Strait crisis.

A Unilateralist Arms Control Policy Denies China's Chance to Restrict America

Arms control is a means to safeguard a nation's security, as is arms development. A nation may utilize arms control negotiations to restrict opponents more and to restrict itself less to increase its security interests.

Arms control history has shown that China's participation in arms control is good for its national interests to a certain extent. In the early period of the Cold War, China thought that the United States and the Soviet Union were trying to limit China's development of nuclear weapons by nuclear arms control negotiations and treaties, while nuclear disarmament of both superpowers was only on paper. As a result, China did not take part in multilateral arms control negotiations, let alone sign multilateral arms control treaties.

Thus China lost opportunities to influence the process and content of international arms control and disarmament and to improve national security interests. Moreover, China at last had to join international arms control treaties, or take on the commitments of them, even though some articles of some treaties are not in the best interests of China's national security. Strong public pressure from the international community has urged nuclear arms control and disarmament.

Since its reformation and opening up in 1978, China has greatly changed its inflexible "leftist" arms control policy. It more and more actively has taken part in international affairs and multilateral negotiations on arms control and disarmament, by which it could to some extent have an impact on the process and arrangement of the international arms control with other countries, as well as maintain its national security interests.⁵¹ For instance, China vigorously joined multilateral talks on the CTBT, not only buying valuable time to conduct a series of nuclear tests but also putting its requirements into the treaty. Since the beginning of the CTBT negotiations, China has carried out six nuclear tests: in October 1993, June 1994, May 1995, August 1995, June 1996, and July 1996.

China held that an on-site-inspection request must be approved by a two-thirds majority of all Executive Council members.⁵² Based on China's suggestion, the CTBT stipulates that an on-site inspection must be approved by at least 30 affirmative votes of members of the Executive Council, which has 51 members.⁵³ In addition, China argued that the CTBT should enter into force after the deposit of instruments of ratification by all nuclear-capable states as specified in the relevant International Atomic Energy Agency list.⁵⁴ Article XIV of the CTBT provides that the treaty will enter into force 180 days after the deposit date of the instruments of ratification by 44 nuclear-capable states.⁵⁵

China, of course, had losses in the CTBT negotiations, but it maintained some key national security interests by bargaining. So for China, a nuclear state with the smallest and most backward nuclear arsenals among the five nuclear states, actively participating in arms control negotiations is better than not doing so.

However, the Bush administration has discarded multilateral cooperation and negotiation in the field of nuclear arms control and pursues a unilateralist approach to push nuclear disarmament. As a result, China will once again lose a chance to join and influence the process and content of nuclear arms control. This would not be beneficial to China's security interests.

Conclusion

- The Bush administration has made the most fundamental adjustments to America's nuclear strategy since the end of the Cold War. The new nuclear strategy shifts from the old threat-based model to a new capabilities-based model. It changes the nuclear deterrent of mutually assured destruction into a full-spectrum nuclear deterrent. The Cold War Triad completely dependent on offensive strategic nuclear forces of ICBMs, SLBMs, and strategic bombers is replaced by the New Triad of nuclear and non-nuclear offensive strike forces, missile defense systems, and a responsive defense infrastructure. The role of nuclear weapons expands from deterrence to war-fighting. Moreover, the Bush administration is pursuing a unilateralist arms control policy rather than multilateral negotiations and traditional treaties.
- The goal of changing America's nuclear strategy is to maintain and strengthen America's absolute military superiority in order to remain the sole global superpower. This would break a balance of international and regional forces and could lead some countries to develop their strategic forces to reduce the military gap between them and the United States. In turn, their neighboring countries would make the same response. This would destabilize the world and the regions concerned, undermining America's security interests.
- The development of the New Triad and the possible development of low-yield nuclear weapons would blur the distinction between nuclear and conventional weapons, as well as that between nuclear and conventional war. This would increase the possibility of nuclear weapons use, resulting in the spread of nuclear weapons and ballistic missiles.
- Among nuclear powers, the new nuclear strategy would have the greatest impact on China. China is among the seven nations listed as targets of an American nuclear strike. This is a great threat to China's security. The United States may use nuclear weapons to defend Taiwan. This will hinder Chinese reunification and thereby threaten Chinese core security. The United States has had absolute military superiority over China. The buildup of the New Triad will further weaken the effectiveness of China's limited nuclear deterrent forces. Finally, the new American nuclear strategy exerts a significant influence on China's security interests.

Notes

1. "Presidential Election Forum: The Candidates on Arms Control," *Arms Control Today*, September 2000.
2. "Nuclear Posture Review [Excerpts]," <http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm>, January 8, 2002.
3. Donald H. Rumsfeld, "Transforming the Military," *Foreign Affairs*, May/June 2002.
4. Henry A. Kissinger, *The Necessity for Choice*, Garden City (New York: Doubleday, 1962), p. 12.
5. Department of Defense, "Nuclear Posture Review," *1995 Annual Defense Report*, http://www.defenselink.mil/execsec/adr95/npr_.html.
6. Craig Cerniello, "Clinton Issues New Guidelines on U.S. Nuclear Weapons Doctrine," *Arms Control Today*, November/December 1997; and "PDD/NSC 60: Nuclear Weapons Employment Policy Guidelines," <http://www.fas.org/irp/offdocs/pdd60.htm>.
7. Paul Richter, "U.S. Works Up Plan for Using Nuclear Arms," *The Los Angeles Times*, March 9, 2002.
8. George W. Bush, "President Bush Delivers Graduation Speech at West Point," <http://www.whitehouse.gov/news/releases/2002/06/print/20020601-3.html>, June 1, 2002.
9. George W. Bush, "Missile Defense: Remarks to Student and Faculty at National Defense University," <http://www.state.gov/t/ac/rls/rm/2001/2873.htm>, May 1, 2001.
10. George W. Bush, "President Discusses National Missile Defense," <http://www.state.gov/t/ac/rls/rm/2001/6847.htm>, December 13, 2001.
11. Walter Pincus, "U.S. Alters Estimate of Threats," *The Washington Post*, January 11, 2002.
12. Department of Defense, *Quadrennial Defense Review Report*, <http://www.defenselink.mil/pubs/qdr2001.pdf>, September 30, 2001.
13. J. D. Crouch, "Special Briefing on the Nuclear Posture Review," http://www.defenselink.mil/news/Jan2002/t01092002_t0109npr.html, January 9, 2002.
14. The studies report was sent to Congress by the Department of Defense in October and disclosed on December 19, 2001, by Nuclear Watch of New Mexico, a nonprofit organization concerned with safety, environmental, and nonproliferation issues surrounding nuclear weapons. See Walter Pincus, "Nuclear Strike on Bunkers Assessed: Congress Receives Pentagon Study," *The Washington Post*, December 20, 2001.
15. Crouch, see note 13.
16. Philipp C. Bleek, "Energy Department to Study Modifying Nuclear Weapons," *Arms Control Today*, April 2002.
17. "Nuclear Posture Review [Excerpts]," see note 2.
18. Michael R. Gordon, "Nuclear Arms for Deterrence or Fighting?" *The New York Times*, March 11, 2002.

19. They are Los Alamos weapons analysts Thomas Dowler and Joseph Howard, and Sandia Laboratory director Paul Robinson. See Robert W. Nelson, "Low-Yield Earth-Penetrating Nuclear Weapons," *FAS Public Interest Report—The Journal of the Federation of American Scientists*, January/February 2001, <http://www.fas.org/faspir/2001/v54nl/weapons.htm>.
20. Opponents include Robert W. Nelson, theoretical physicist; Michael A. Levi, deputy director of FAS's strategic security project; Henry C. Kelly, president of the Federation of American Scientists; and Rep. Edward Markey (Massachusetts). See Henry C. Kelly and Michael A. Levi, "Nix the Mini-nukes," *The Christian Science Monitor*, March 28, 2002, <http://www.csmonitor.com/2002/0328/p09s01-coop.html>; and Edward Markey, "Letter to President Bush," February 14, 2002, http://www.fcnl.org/issues/arm/sup/nuclear_weapons_markey12402.htm.
21. "Nuclear Posture Review [Excerpts]," see note 2.
22. Rose Gottemoeller, "Arms Control in a New Era," *The Washington Quarterly* 25 (spring 2002).
23. See ACA Press Conference, "ABM Treaty Withdrawal: Neither Necessary nor Prudent," *Arms Control Today*, January/February 2002; Steven Mufson, "ABM Treaty May Be History, but Deterrence Doctrine Lives," *The Washington Post*, December 16, 2001; Charles Pena and Ivan Eland, "Withdrawal Is Premature," *Arms Control Today*, January/February 2002; and Wade Boese, "U.S. Withdraws from ABM Treaty; Global Response Muted," *Arms Control Today*, July/August 2002.
24. Crouch, see note 13.
25. Daryl G. Kimball, "CTBT Rogue State?" *Arms Control Today*, December 2001.
26. Crouch, see note 13.
27. "Nuclear Posture Review [Excerpts]," see note 2; and Michael R. Gordon, "U.S. Nuclear Plan Sees New Weapons and New Targets," *The New York Times*, March 10, 2002.
28. Michael R. Gordon, "Nuclear Arms for Deterrence or Fighting?" *The New York Times*, March 11, 2002.
29. Walter Pincus, "Report Finds Shortcomings in Energy Dept. Arms Testing: Ability to Ensure Weapons' Reliability at Issue, IG Says," *The Washington Post*, January 3, 2002, p. A15.
30. Kathleen C. Bailey, *The Comprehensive Test Ban Treaty: An Update on the Debate*, National Institute for Public Policy, March 2001, pp. 1–4, <http://www.inpp.org>.
31. Walter Pincus, "U.S. to Seek Options on New Nuclear Tests: White House Worries about Arsenal's Reliability," *The Washington Post*, January 8, 2002, p. A04.
32. Pincus, "Report Finds Shortcomings," see note 29.
33. Crouch, see note 13.
34. Nelson, "Low-Yield Earth-Penetrating Nuclear Weapons," see note 19.
35. Steven E. Miller, "The End of Unilateralism or Unilateralism Redux?" *The Washington Quarterly* 25 (winter 2002).
36. Michelle Ciarrocca, "Roadmap to Unilateralist Nuclear Policy," http://www.fpif.org/commentary/2002/0201nuke_body.html, January 16, 2002; Ciarrocca is an analyst with the Arms Trade Resource Center at the World Policy Institute.
37. Foreign Ministry Spokesperson's Press Conference, <http://www.fmprc.gov.cn/chn/26473.html>, <http://www.fmprc.gov.cn/eng/26588>, <http://www.fmprc.gov.cn/eng/26749.html>, March 11, 12, and 14, 2002.
38. Tan Xinmu, "Xin Bian Hua Jiu Si Wei: Ping Mei He Tai Shi Ping Gu Bao Gao (New Change Old Thinking: Comments on the U.S. Nuclear Posture Review)," *People's Liberation Army Daily*, March 24, 2002; Zhu Feng, "Mei Guo Ke Neng Dui Zhong Guo Fa Dong He Gong Ji? (Can the United States Launch a Nuclear Attack on China?)," *Lian He Zao Bao*, March 12, 2002; Ren Qiuling, "He Da Ji Hei Ming Dian Pu Guang Shi Mo (List of Targets of Nuclear Strike Leaked from the Beginning to the End)," *Qi Lu Evening News*, March 15, 2002.
39. See Michael E. Brown, Owen R. Cote Jr., Sean M. Lynn-Jones, and Steven E. Miller, eds., *The Rise of China* (Cambridge, MA: MIT Press, 2000); David Shambaugh, "Containment or Engagement of China: Calculating Beijing's Responses," *International Security* (fall 1996); Gerald Segal, "East Asia and the 'Constraint' of China," *International Security* (spring 1996); and Randall L. Schweller, "Managing the

Rise of Great Power: History and Theory,” in *Engaging China: The Management of an Emerging Power*, eds. Alastair Iain Johnston and Robert S. Ross (New York: Routledge, 1999).

40. See Edward Friedman, “The Challenge of a Rising China: Another Germany?” in *Eagle Adrift: American Foreign Policy at the End of the Century*, ed. Robert J. Lieber (New York: Addison Wesley Longman, Inc., 1997); James Lilley and Carl Ford, “China’s Military: A Second Opinion,” *National Interest* 57 (fall 1999); Arthur Waldron, “Statement of Dr Arthur Waldron,” *House Armed Services Committee*, June 21, 2000, <http://www.house.gov/hasc/testimony/106thcongress/00-06-21waldron.html>; Bill Gertz, *The China Threat: How the People’s Republic Targets America* (Washington, D.C.: Regnery, 2000); Thomas J. Christensen, “Posing Problems Without Catching Up: China’s Rise and Challenges for U.S. Security Policy,” *International Security* 25, no. 4 (spring 2001).

41. See Bates Gill and Michael O’Hanlon, “China’s Hollow Military,” *National Interest* 56 (summer 1999); Bates Gill and Michael O’Hanlon, “China’s Military, Take 3” *National Interest* 58 (winter 1999/2000); Michael O’Hanlon, “Why China Cannot Conquer Taiwan,” *International Security* 25, no. 2 (fall 2000); and Avery Goldstein, “The Diplomatic Face of China’s Grand Strategy: A Rising Power’s Emerging Choice,” *The China Quarterly*, December 2001.

42. National Intelligence Council, “Foreign Missile Developments and the Ballistic Missile Threat through 2015,” http://www.cia.gov/nic/pubs/other_products/Unclassifiedballisticmissilefinal.htm, December 2001.

43. “Nuclear Posture Review [Excerpts],” see note 2.

44. Information Office of the State Council of the People’s Republic of China, “China’s National Defense 2000,” in *National Defense Policy*, October 2000.

45. Bill Gertz, “Missiles Bolstered Opposite Taiwan,” *The Washington Times*, April 29, 2002.

46. *Ibid.*

47. National Intelligence Council, see note 42.

48. Li bin, “The Effects of NMD on Chinese Strategy,” *Jane’s Intelligence Review*, March 7, 2001.

49. Sha Zukang, “Briefing on Missile Defense Issue,” <http://www.fmprc.gov.cn/eng/9375.html>, March 23, 2001.

50. Hang Ge, “Zhong Guo Ying Tiao Zheng He Zheng Ce (China Should Adjust the Nuclear Policy),” *Lian He Zao Bao*, July 22, 2000.

51. Pan Zhengqiang, *International Disarmament and Arms Control* (Beijing: National Defense University Press, 1996), p. 417.

52. Chinese Delegation, “China’s Position on CTBT On-Site-Inspection—A Working Paper,” *CD/NTB/WP.266*, September 5, 1995.

53. “The Comprehensive Nuclear Test Ban Treaty,” Article IV, <http://www.state.gov/www/global/arms/treaties/ctb.html>.

54. Zou Yunhua, “China and the CTBT Negotiations,” working paper, Center for International Security and Cooperation, Stanford University, December 1998, <http://www.cisac.stanford.edu/docs/zouctbt.pdf>.

55. “The Comprehensive Nuclear Test Ban Treaty,” Article XIV, see note 53.