

COUNTERING NUCLEAR RISKS IN SOUTH ASIA

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Samina Ahmed

Council for A Livable World Education Fund

December 2001

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Executive Summary

The terrorist attacks on the World Trade Center and the Pentagon on September 11, 2001 have transformed U.S. policies towards South Asia.

Whereas U.S.-Pakistani relations had taken a downturn due to the loss of democracy in Pakistan and its cooperation with China in the area of ballistic missile proliferation, now the U.S. is aggressively courting Pakistan in order to ensure its cooperation in the international coalition against terrorism. Amidst the international frenzy to engage Pakistan, democratic India feels like it has been left at the altar. Nonproliferation, formerly a centerpiece of U.S. policy towards both India and Pakistan, has taken a back seat to the expediencies of the war on terrorism.

At the same time that U.S. emphasis on nonproliferation has diminished, bilateral tensions have once again increased between India and Pakistan. In the weeks following the September 11 attacks and the onset of U.S. strikes against Afghanistan, fighting across the Line of Control in Kashmir has intensified, as has the rhetoric of Indian and Pakistani officials. As tempers and tensions continue to flare, both countries may well opt for operational nuclear forces, increase their fissile material stockpiles, and possibly even resume nuclear testing.

Nonproliferation, formerly a centerpiece of U.S. policy towards both India and Pakistan, has taken a back seat to the expediencies of the war on terrorism.

Furthermore, as India and Pakistan use their limited fiscal resources to enlarge their stockpiles of weapons-grade plutonium and uranium, it is unlikely that they will pay equal attention to strengthening nuclear custodial security and safety measures, especially given financial and technological constraints and the lack of a safety culture. This is an important consideration given U.S. concerns that nuclear theft or diversion could result in the acquisition of sensitive materials by terrorists.

The policies the Bush administration pursues toward South Asia will determine its effectiveness in countering the dual and inter-linked threats of nuclear use and nuclear terrorism in this volatile and unstable region. As regional tensions continue to fester, if nuclear issues are left on the backburner, denial regimes are allowed to weaken, and if India and Pakistan are assured of a benign international response, both countries will likely deploy operational nuclear weapons.

Should the United States cross the line from passive acceptance of India and Pakistan as nuclear powers to active assistance in helping the two countries manage their nuclear arsenals, weaponization and deployment may occur much sooner. An all-out nuclear arms race will follow, dramatically increasing the risks of a conventional conflict escalating to the nuclear level, either intentionally or by accident.

At this crucial stage in South Asia's nuclear development, to advance both U.S. global nonproliferation objectives and anti-terrorism goals, the Bush administration and the U.S. Congress must maintain pressure on India and Pakistan to exercise nuclear restraint and to rethink their nuclear directions. The United States must also engage with India and Pakistan to contain the Kashmir conflict and bolster crisis stability.

Countering Nuclear Risks in South Asia

BY SAMINA AHMED

Introduction

The terrorist attacks on the World Trade Center and the Pentagon on September 11, 2001 have transformed U.S. policies towards South Asia. Whereas U.S.-Pakistani relations had taken a downturn due to the loss of democracy in Pakistan and its cooperation with China in the area of ballistic missile proliferation, the U.S. is now reviving its alliance with Pakistan in return for its cooperation in the war against terrorism. As other countries and international financial institutions rush to engage Pakistan, democratic India feels like it has been left at the altar.

Secretary of State Colin Powell stresses that nuclear nonproliferation will remain an important issue in U.S. global policies as the U.S. embarks on its campaign to eradicate terrorism. "(W)e will not relax our standards and will continue to advance our fundamental interests" in "nonproliferation," he states.¹ In reality, however, U.S. nonproliferation concerns and arms control objectives have receded into the background as counter-terrorism strategies take primacy over all other U.S. political, economic and strategic interests in South Asia. Overlooking its past differences with Pakistan, the U.S. has waived Glenn amendment and democracy sanctions to reward the military regime of General Pervez Musharraf for supporting U.S. military operations in Afghanistan.² The Bush administration has also waived all remaining Glenn amendment sanctions on India, including curbs on high technology and military sales.³

As the United States restructures its policy toward South Asia, heightened India-Pakistan tensions are threatening the outbreak of yet another war.

As the United States restructures its policy toward South Asia, heightened India-Pakistan tensions are threatening the outbreak of yet another war. Despite repeated U.S. assurances that a strategic and military partnership with India remains a key U.S. priority, India's ruling Bharatiya Janata Party (BJP) government has perceived a revived U.S.-Pakistan alliance as a security threat and a challenge to India's regional aspirations.⁴ Pressuring the United States to take Pakistan to task for its support of Kashmiri militants, Indian Foreign Minister Jaswanth Singh has stressed, "Our fight against terrorism did not start on September 11." He continued, "We have been fighting this battle alone for years now. Pakistan has spawned, encouraged and sustained terrorist activities in Kashmir."⁵ The Musharraf regime has not only refused to end its support to the Kashmiri militants, but also is attempting to use its increased leverage with the U.S. to highlight their dispute with India over Kashmir. Pakistan has called on the international community to recognize the threat of "state terrorism. . . especially in Indian occupied Kashmir."⁶

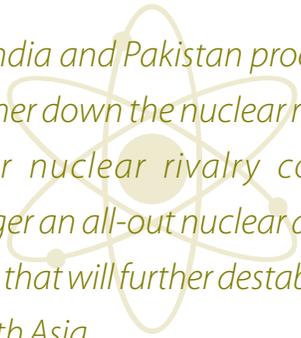
Artillery exchanges have resumed along the Line of Control (LOC) that divides Indian and Pakistani Kashmir. Amidst mutual accusations of offensive troop build-ups, both sides are bolstering their forces along the LOC and international border. Pakistan has even put its air force on its highest alert to ward off an impending Indian attack on its nuclear sites, an allegation that India has strongly rejected. As bilateral tensions continue

to mount, some Indian politicians including Chief Minister of Kashmir Farooq Abdullah have even advocated a policy of hot pursuit of Pakistani-backed militants across the LOC. Stating that India is adhering “for the moment” to its policy of not attacking militants in Pakistani territory, BJP Minister of State in the Ministry of External Affairs, Omar Abdulla, ominously adds, “the patience of India is limited.”⁷

With the unconditional removal of sanctions, tacit U.S. acceptance of India’s nuclear weapons status, and regional tensions once again on the rise, conditions are ripe for Indian policymakers to deploy operation-ready nuclear weapons and delivery systems. By continuing to conduct ballistic missile tests after September 11, India is in fact signaling its intention to deploy nuclear weapons and their delivery systems to the international community.⁸

Since Pakistan’s nuclear policy is India-centric and reactive, should India opt for a deliverable nuclear arsenal, a retaliatory Pakistani nuclear deployment is inevitable. As India and Pakistan proceed further down the nuclear road, their nuclear rivalry could trigger an all-out nuclear arms race that will further destabilize South Asia. The potential for nuclear terrorism will also increase as both states increase their stockpiles of weapons-grade materials, assemble and mate warheads with delivery systems, and disperse their nuclear arsenals, thus increasing the potential for theft and unauthorized use.

As India and Pakistan proceed further down the nuclear road, their nuclear rivalry could trigger an all-out nuclear arms race that will further destabilize South Asia.



Should India or Pakistan attempt to deploy survivable nuclear weapons in the immediate future, they will encounter significant technological and financial constraints. Decision makers in the two countries will also have to assess the

potential diplomatic and economic costs, in particular the U.S. response to nuclear weapons deployment. At this crucial stage in South Asia’s nuclear development, to advance both U.S. global nonproliferation objectives and anti-terrorism goals, the Bush administration and the U.S. Congress must maintain pressure on India and Pakistan to exercise nuclear restraint and to rethink their nuclear directions.

Factors Affecting South Asian Nuclear Programs

India justifies its nuclear weapons program, initiated soon after independence in 1947, primarily on the grounds of security threats from Pakistan and China. Justifying India’s May 1998 nuclear tests in a letter to President Clinton, Prime Minister Atal Bihari Vajpayee stated, “We have an overt nuclear weapon state on our borders, a state which committed aggression against India in 1962. . . . (That) country has materially helped another neighbor of ours to become a covert nuclear weapons state. At the hands of this bitter neighbor we have suffered three aggressions in the last 50 years. And we have been the victim of unremitting terrorism and militancy sponsored by it in several parts of our country. . . .”⁹ India, still rankling from its defeat in the 1962 war with China, also hopes to match China’s regional and global standing through a countervailing nuclear weapons capability.

India’s motives for acquiring and expanding its nuclear weapons capabilities are, however, far more complex. Indian policymakers believe that nuclear weapons will bestow upon India the international status it rightfully desires, commensurate with its size, population, and political and economic potential. Domestic imperatives also shape India’s nuclear directions. An ambitious nuclear scientific estate has convinced successive Indian governments to continuously expand India’s nuclear weapons capabilities.¹⁰ In May 1998, when the ambitions of the nuclear scientific bureaucracy converged with the ultra-nationalistic aspirations of its BJP government, India held a series of nuclear tests and claimed the status of a nuclear weapons state.¹¹ Should nationalist parties continue to dominate India’s political landscape, the convergence of interests between its political and scientific estates will continue to shape India’s nuclear directions.

INDIAN AND PAKISTANI NUCLEAR CAPABILITIES

India

In the absence of detailed information, it is difficult to assess India's current nuclear capabilities. Based on India's production facilities, an October 2000 estimate places stockpiles of weapons-grade plutonium at 240-395 kilograms (kg), sufficient for 45-95 warheads.¹ Potential delivery systems include aircraft such as the Jaguar, Mirage and Sukhoi-30 fighter planes that can be configured to nuclear roles. Short-range liquid-fuel Prithvi missiles, with a range of 150-250 kilometers (km) are already in production but are unlikely to be used for nuclear roles.² India is developing medium and intermediate range nuclear-capable ballistic missiles including the Agni II, tested to a range of 2,000-2,500km, and Agni III, yet to be developed, with a potential range of 3,500-5,000km.³ Although India's space program reveals an ambition to develop intercontinental ballistic missiles that could be capable of reaching the United States, it is unlikely to succeed without substantial external assistance.⁴

After the May 1998 tests, Scientific Advisor to the Defense Minister and Chief of the Defense Research and Development Organization, Dr. A.P.J. Kalam claimed that "weaponization is now complete."⁵ A former director of the Bhabha Atomic Research Center, A.N. Prasad, however, believes that the results of the May 1998 tests were insufficient to "convince" India's armed forces of the accuracy and yields of its nuclear arsenal unless more tests were carried out.⁶ Although India could use fixed-wing aircraft to deliver crude nuclear warheads, its political and military leaders cannot have confidence in the reliability or deployment readiness of their largely indigenously designed ground-based ballistic missiles and their nuclear warhead designs without further and sustained field testing.⁷

If India's political leaders are assured of a benign international response, they could resume nuclear testing.⁸ Once India overcomes its current constraints through sustained field testing and/or through external assistance, it could opt for an operational nuclear arsenal and could also expand its nuclear capabilities to include thermonuclear weapons and intercontinental ballistic missiles. Pakistan's military-dominated nuclear apparatus will retaliate in kind to Indian nuclear weapons deployment and resumed nuclear tests.

Pakistan

As in the Indian case, it is difficult to assess Pakistan's nuclear capabilities. Based on available knowledge of its production capabilities, October 2000 figures estimate Pakistan's stockpile of enriched uranium between 585-800kg, sufficient for 30-52 nuclear bombs.⁹ Pakistan could also use plutonium from its Chashma plutonium reprocessing plant to produce smaller and more powerful nuclear devices. It is likely that Pakistan has acquired proven Chinese warhead designs. Pakistan's nuclear delivery systems include fixed-wing aircraft such as Mirage fighter bombers that can be configured for nuclear roles. Apart from Chinese supplied M-II (Hatf-3) missiles, with a range of 300km, that are reportedly in service, Pakistan has developed, with Chinese assistance, a series of short and medium range nuclear-capable missiles.¹⁰ These include the 700km range Shaheen and the 1,500-2,000km range Ghauri II (also known as Hatf-V), reportedly adapted from the North Korean No Dong with Chinese assistance.¹¹ Senior Pakistani officials also claim that an intermediate range ballistic missile, Shaheen-II, with a projected range of 2,400km, is ready for field testing.¹²

Because of its proven Chinese nuclear weapon designs and Chinese and North Korean-based ballistic missiles, Pakistan could possibly mate its nuclear warheads with its M-11 missiles and other missile systems.¹³ Pakistan, however, currently favors nonweaponization for a number of reasons. One-eighth the size of India and facing a growing conventional gap, almost all of Pakistan's territory is within the reach of Indian aircraft. Unlike India's impressive scientific and technological base, Pakistan is overly dependent on external sources of nuclear and ballistic missile technology. Hence Pakistan's nuclear development is vulnerable to

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external developments, including a future Chinese and/or North Korean decision to discontinue their nuclear assistance under U.S. pressure.¹⁴ The removal of U.S. sanctions on high technology could help India to overcome its present technological gap with Pakistan.¹⁵ Should India opt for operational nuclear weapons and their delivery systems, Pakistan's fiscal and technological inferiority would work to its disadvantage.

- ¹ David Albright, "India's and Pakistan's Fissile Material and Nuclear Weapons Inventories, end of 1999," Institute for Science and International Security, October 11, 2000.
- ² Eric Arnett, *Facts and Fiction: Current Nuclear Weapons Capabilities in South Asia*. <http://www.sipri.se/projects/technology/Facts.html>.
- ³ Neil Joeck, "Nuclear Relations in South Asia" in Joseph Cirincione, ed., *Repairing the Regime*: 39. See also K. Sawhney, "Pakistan Scores Over India in Ballistic Missile Race," *Jane's Intelligence Review* (November 2000), 33.
- ⁴ T.V. Paul, "The Systemic Bases of India's Challenge to the Global Nuclear Order," *Nonproliferation Review* 5 (Fall 1998), 3.
- ⁵ Quoted in T.T. Poulouse, "India's Deterrence Doctrine: A Nehruvian Critique," *Nonproliferation Review* 5 (Fall 1998), 77.
- ⁶ Earlier two former Atomic Energy Commission (AEC) Chiefs, M.R. Srinivasan and PK Iyengar had also called for more prototype tests, disputing AEC Chairman R. Chidambaram's claim that the May 1988 tests had given India "the capability to design and fabricate nuclear weapons from low yields up to around 200 kilotons." Debashis Bhattacharya, "Indian Scientist Feels Need to Conduct More Nuclear Tests," *The Telegraph*, 1 November 2000. See also P.R. Chari, "India's Slow-Motion Nuclear Deployment," *Issue Brief* (New York: Carnegie Endowment for International Peace, September 7, 2000).
- ⁷ "India and Pakistan's Nuclear Tests: A New Arms Race?" *Strategic Comments* 4 (June 1998), 237.
- ⁸ In its report on proliferation issues in South Asia, the U.S. Department of Defense warned that India might conduct more nuclear tests in the future, resulting in a retaliatory Pakistani response. This warning was repeated by CIA Director George Tenet in a prepared testimony to Congress. Statement by the Director of Central Intelligence, George J. Tenet before the Senate Select Committee on Intelligence on the Worldwide Threat 2001: *National Security in a Changing World* (as prepared for delivery, February 7, 2001), 16; *Proliferation: Threat and Response* (Washington DC: Department of Defense, January 2001), 30. <http://www.defenselink.mil>.
- ⁹ Albright, "India's and Pakistan's Fissile Material and Nuclear Weapons Inventories, end of 1999." Andrew Koch and Waheguru Pal Sidhu, "Subcontinental Missiles," *the Bulletin of the Atomic Scientists* 54 (July-August 1998), 44-45, 48; Eric Arnett, "Military Research and Development in Southern Asia: Limited Capabilities Despite Impressive Resources" in Eric Arnett, ed., *Military Capability and the Risk of War: China, India, Pakistan and Iran* (Oxford: Oxford University Press for the Stockholm International Peace Research Institute, 1997), 269.
- ¹¹ According to a CIA report to Congress in August 2000, China has increased its assistance to Pakistan's ballistic missile program while U.S. media reports claim that China may be helping Pakistan to construct a second factory to build M-11 missiles. J. Peter Scoblic, "U.S.-China Arms Control Talks Resume," *Arms Control Today* 30 (September 2000), 24.
- ¹² Ihtashamul Haque, "Shaheen-II Waiting to be Launched," *Dawn*, December 19, 2000.
- ¹³ Koch and Sidhu, "Subcontinental Missiles," 44.
- ¹⁴ According to CIA Director George Tenet, "Pakistan's continued development of the two-stage Shaheen II MRBM will require additional Chinese assistance." *Worldwide Threat 2001: National Security in a Changing World*, 8.
- ¹⁵ Although Indian Finance Minister Yashwant Sinha claims the removal of sanctions except for "certain defense supplies... have no meaning," according to the Secretary General of the Federation of Indian Chambers of Commerce and Industry, the biggest beneficiaries of the lifting of sanctions will be thirty-nine large cutting-edge technology companies in the civilian sector. Since the Pentagon has assessed that India's ballistic missile program is weak in composites, electronics, computers, sensors and navigation equipment, these are deficiencies that India could partially redress with the lifting of U.S. sanctions on high technology. "Indian Missiles: Threat and Capability," *The Risk Report 1* (January/February 1995), 3, 9; Jawed Naqvi, "India Smiles Wryly as Sanctions Go," *Dawn*, September 24, 2001.

Pakistan justifies its nuclear weapons program on the grounds of the threat posed by its much larger neighbor and regional rival, India. Following its defeat and dismemberment in the 1971 war with India, Pakistan opted for a nuclear weapons capability. A former Chairman of the Pakistan Atomic Energy Commission, Munir Ahmed Khan, claims that Pakistan's "nuclear program was triggered by India's aggressive nuclear posture which directly threatened its security."¹² Guided by its animosity towards and rivalry with India, Pakistan's nuclear weapons capability is also aimed at matching and undermining India's regional standing and influence.¹³

Domestic imperatives play an equally significant role in shaping Pakistan's nuclear directions. Pakistan's nuclear weapons program is the preserve of its politically dominant and anti-Indian military establishment, with its scientific bureaucracy assuming a subordinate role. Even during Pakistan's brief democratic interludes, the military high command has retained control over the nuclear weapons program. In May 1998, the military high command successfully pressured a reluctant Prime Minister, Mohammad Nawaz Sharif, to hold retaliatory nuclear tests to counter the perceived Indian threat and to offset perceived Indian gains in power and prestige. As long as the military leadership dominates nuclear decision making in Pakistan, its nuclear policy will be shaped by nuclear developments in India.¹⁴

U.S. Nonproliferation Policy and Nuclear Decision Making in South Asia

On at least two occasions, the United States has effectively interceded to de-escalate near-nuclear crises between India and Pakistan. During the Kashmir crisis of 1990, the United States played a crucial role in persuading both sides to recognize the gravity of the crisis and to peacefully resolve their differences. In 1999, when conventional hostilities along and across the LOC in Kashmir threatened to spin out of control, concerned about the risks of nuclear use, the United States demanded a return of Pakistani forces from across the LOC and urged India to exercise restraint. As the crisis rapidly escalated, Pakistani Prime Minister Nawaz Sharif rushed to Washington. Acting as an intermediary between the Pakistani and Indian leadership, President Clinton oversaw an end to armed hostilities between India and Pakistan.

While strong and decisive U.S. policies have helped defuse past crises in South Asia, it is also true that incoherent U.S. nonproliferation policies and unsuitable influence strategies have contributed indirectly to South Asia's nuclearization. Although declared U.S. policy has emphasized nuclear nonproliferation goals, other perceived political, commercial and strategic interests have more often taken precedence over nonproliferation and arms control objectives. Nonproliferation sanctions were insubstantial and were rarely sustained; inducement strategies were inappropriate and unconditionally extended.¹⁵

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The Cold War Era

During the 1950s and 1960s, when India embarked on an ambitious nuclear weapons program, the United States was unwilling to pressure a democratic country that was perceived as a potential counterweight to communist China. After India's 1974 nuclear test, enhanced U.S. concerns about nuclear proliferation resulted in more stringent unilateral and U.S.-led international denial regimes and sanctions.¹⁶

The U.S. failure to impose targeted sanctions on India encouraged Pakistan to embark on a nuclear weapons program. Although Pakistan's nuclear development was well advanced in the 1980s, successive U.S. administrations chose to waive nuclear-specific sanctions, offering substantial military and economic assistance instead to the regime of General Zia-ul-Haq because of Pakistan's strategic importance to the U.S. proxy war against Soviet forces in Afghanistan.

INDIA AND PAKISTAN – A HISTORY OF WAR AND CONFLICT

Both Indian and Pakistani officials claim that their nuclear weapons capabilities have contributed to regional stability by decreasing the prospects of war. "I have tried to replay the lead up to the three rounds of fighting (the three wars) between India and Pakistan with a backdrop of minimum nuclear deterrence as it exists today," writes former Indian Army Chief Sunderji, "My answer was unequivocal each time. These wars would not have occurred." His Pakistani counterpart General Aslam Beg also claims, "It is the nuclear deterrent that has kept wars in South Asia at bay."¹

The history of past India-Pakistan crises, however, belies these claims. As their nuclear capabilities have increased, so have bilateral tensions and hostility, undermining crisis stability in South Asia. Since their acquisition of a nuclear weapons capability, India and Pakistan have come close to war on two separate occasions, in 1986-87 and in 1990. In 1999, a year after their nuclear weapons tests, India and Pakistan fought a limited conventional war that almost escalated to the nuclear level.

In 1986-87, India held a major military exercise, Operation Brasstacks, close to the Pakistani border. Perceiving India's military maneuvers as a precursor to an attack, Pakistan massed troops in offensive positions along the international border and also resorted to nuclear coercive diplomacy to ward off a perceived Indian threat. In an unprecedented interview with an Indian journalist, the head of Pakistan's nuclear enrichment program, Dr. Abdul Qadeer Khan, warned, "we shall use the bomb if our existence is threatened."² Although the crisis was ultimately defused through high level talks, the potential for escalation was considerable. India could have reacted to Pakistan's coercive nuclear diplomacy by striking Pakistan's limited nuclear assets. Pakistani concerns about a massive Indian conventional attack could have prompted a pre-emptive nuclear response.

In 1990, India and Pakistan were once again on the nuclear brink. Widespread unrest in Indian-administered Kashmir, because of central government mismanagement and intervention, gave Pakistan an opportunity to increase its military and logistical support to Kashmiri militants. As the insurgency assumed threatening proportions, India retaliated by massing forces along the international border and the line of control in Kashmir. When the crisis rapidly escalated, fearing an impending Indian attack, Pakistan once again resorted to implicit nuclear threats.³ By one albeit contentious account, Pakistan had made preparations for a pre-emptive nuclear attack.⁴ Concerned about the high risk of nuclear use, Deputy National Security Advisor Robert Gates was dispatched to South Asia, where he helped to de-escalate tensions.

In 1990, mutual hostility, misperceptions and miscalculations combined to undermine crisis stability. Pakistan had increased its support to the Kashmiri insurgency in the belief that its nuclear weapons capability would deter India from using conventional force. India had upped the conventional ante, disregarding Pakistan's nuclear capability. A dedicated hotline between Directors General of Military Operations was initially misused by both sides to convey misinformation and then completely ignored.⁵ Given the absence of transparency, the lack of communication, and high levels of mutual mistrust, the 1990 crisis could have escalated to an all-out conventional war with a nuclear dimension.

After the 1990 crisis, India and Pakistan entered into a number of nuclear risk reduction measures, ratifying in 1991 an earlier agreement on non-attack on nuclear facilities and installations. No tangible steps were taken, however, to decrease bilateral tensions.⁶ On the contrary, as both sides expanded their nuclear capabilities, their mutual animosity and mistrust correspondingly grew, reaching new heights following their May 1998 nuclear tests. Facing international approbation and hoping to ease a U.S.-led multilateral sanctions regime, India and Pakistan's Prime Ministers met in May 1999 and agreed to institute a number of confidence building, including nuclear risk reduction measures.⁷ Even while the talks were being held, Pakistani regulars and Pakistan-backed militants intruded in the Kargil and Drass sectors of Indian-administered Kashmir.

As Indian military casualties mounted, India threatened to take the war across the LOC and the international border. Pakistan retaliated by issuing explicit nuclear threats. Foreign Secretary Shamshad Ahmad warned that Pakistan “will not hesitate to use any weapons in our arsenal to defend our territorial integrity.”⁸ A former Indian Naval Chief disclosed that during the Kargil crisis, “over a dozen people on both sides advised the use of nuclear weapons.”⁹ Concerned that the conflict could escalate to the nuclear level, the United States intervened, warning India against precipitate military action and pressuring Pakistan to withdraw its forces.¹⁰ Military reverses and U.S. pressure resulted in an unconditional withdrawal of Pakistani troops and supporters, bringing the Kargil conflict to an end.

The Kargil conflict demonstrates the fragility of South Asian crisis stability. Pakistan had again opted for a military adventure in the belief that its demonstrated nuclear capability would prevent India from retaliating militarily. India, however, was willing to wage an all-out war against a nuclear adversary. During the course of the conflict, both sides issued nuclear and conventional threats. As in 1990, poor intelligence and the absence of transparency increased the risks of an all-out conventional war escalating to the nuclear level.

Following the military debacle, Prime Minister Sharif was ousted in a coup d’etat in October 1999 by a disgruntled military leadership. Since it held Pakistan’s new military ruler, Army Chief Pervez Musharraf, responsible for the Kargil misadventure, India suspended all high level contacts with Pakistan. When Musharraf and Vajpayee finally met at Agra in July 2001, their summit failed because both sides were far less interested in resolving their bilateral differences than in mollifying U.S. concerns about regional instability. In the wake of the failed summit, bilateral tensions have once again increased and have reached dangerous heights at a time when the Bush administration is reshaping its South Asia policy in the wake of the September 11 terrorist attacks.

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- ¹ General Krishnaswami Sundarji, “A Proposed Approach for the Solution of the South Asian Nuclear Conundrum,” 9; General Aslam Beg, *Indian and Pakistani Security Perspectives* (Rawalpindi: Foundation for Research on National Development, 1994), 6.
 - ² Cited in Neil Joeck, *Maintaining Nuclear Stability in South Asia*, *Adelphi Paper* 312 (Oxford: Oxford University Press, 1997). See also Samina Ahmed, “Pakistan’s Nuclear Weapons Program: Turning Points and Nuclear Choices,” *International Security* 23 (Spring 1999), 187-88.
 - ³ According to Indian Foreign Minister I.K. Gujral, his Pakistani counterpart Sahibzada Yaqub Khan had conveyed a veiled nuclear threat to him. Shekhar Gupta, “Nuclear Weapons in the Subcontinent,” *Occasional Papers* 21 (Washington DC: Stimson Center, 1995), 39.
 - ⁴ Seymour Hersh, “On the Nuclear Edge,” *The New Yorker*, March 29, 1993, 59.
 - ⁵ Mario E. Carranza, “Dangerous Optimism: Non-weaponized Deterrence and Regional Peace in South Asia,” *International Politics* 35 (June 1998), 110.
 - ⁶ For a survey of India-Pakistan nuclear related agreements to date see Gaurav Rajen and Kent Biringer, “Nuclear-Related Agreements and Cooperation in South Asia,” *Disarmament Diplomacy* 55 (2001). <http://www.acronym.org.uk/55/rajen.htm>.
 - ⁷ The Foreign Secretary-level Memorandum of Understanding signed at Lahore on February 21, 1999 included a commitment “to notify each other immediately in the event of an accidental, unauthorized or unexplained incident that could create the risk of a fallout.” Rajen and Biringer, *ibid.*
 - ⁸ The Leader of the House in the Pakistani Senate, Raja Zafarul Haq was even more explicit: “The purpose of developing weapons,” he said, “becomes meaningless if they are not used when they are needed.” News Desk, “Pakistan May Use any Weapon,” *The News*, May 31, 2001; “N-Weapons can be used for National Security: Zafar,” *The News*, July 1, 1999.
 - ⁹ “N-Strike Advised During Kargil War—Ramdas,” *Hindustan Times*, December 9, 2000.
 - ¹⁰ “There is always a possibility of events spinning out of control,” stated U.S. Secretary of State for South Asia, “Clearly the ingredients are there for miscalculation.” Quoted in Philip Shenon, “Risks High in Kashmir Clash, Even Huge, U.S. Experts Warn,” *New York Times*, May 30, 1999.

The Clinton Administration

Under the Clinton administration, the United States opted for diplomatic and economic engagement with India and Pakistan, hoping that inducement strategies would advance nuclear nonproliferation goals. But this policy of engagement was also meant to further other perceived political, strategic and economic interests. Although the avowed goals of U.S. nonproliferation policy were to cap, roll back and to eventually eliminate nuclear weapons in South Asia, as the demands of engagement with India took precedence over nonproliferation and arms control objectives, U.S. nonproliferation goalposts shifted over time to the minimum goal of a nuclear cap.¹⁷

Inconsistent U.S. policies and an unconditional easing of diplomatic pressure strengthened nuclear advocates within India's nuclear decision making processes. In May 1998, India held a series of nuclear tests, assuming correctly that nonproliferation would remain secondary to other U.S. objectives, thereby rendering any punitive U.S. response short-lived and bearable.¹⁸ Despite U.S. pressure, Pakistan's military establishment opted for retaliatory tests, motivated by the dual motives of security and prestige.

In the aftermath of the tests, the Clinton administration initially imposed punitive sanctions, as mandated by the Glenn Amendment. Hoping to pressure India and Pakistan to exercise nuclear restraint, the U.S., with the support of the P-5 and G-8, also created a number of benchmarks for the removal of unilateral and U.S.-led multilateral sanctions.¹⁹ They included Indian and Pakistani accession to the Comprehensive Test Ban Treaty (CTBT), participation in negotiations for a future Fissile Material Cutoff Treaty, limitations on the development and deployment of nuclear-capable missiles and aircraft capable of carrying weapons of mass destruction, strengthened export controls on nuclear materials and technology, and an India-Pakistan dialogue to ease bilateral tensions.²⁰

Disregarding the lack of nonproliferation progress and choosing to overlook continued Indian and Pakistani ballistic missile testing, Congress eased most economic sanctions soon after imposing them, pressured by business and agricultural interests and the politically powerful Indian-American lobby.²¹ This policy only further emboldened India and Pakistan, which reneged on earlier pledges of nuclear restraint, including a commitment by their Prime Ministers to accede to the CTBT, and continued to develop their nuclear and ballistic programs.²²

The Clinton administration continued to expand diplomatic and economic ties with India, extending substantial incentives to the BJP government despite its declared intention to deploy operational nuclear weapons. The U.S. rejected Indian demands, however, for the unconditional removal of all remaining nuclear-specific sanctions, including curbs on direct military sales, high technology, and financing, warning that the full normalization of relations would depend on nonproliferation progress. According to Secretary of State Madeleine Albright, "The United States does not regard India's missiles or its nuclear weapons as a direct threat to us. But we do regard proliferation as our Number One security concern. For this reason, we must accept that significant progress in this area is necessary before India and the United States can fully realize the vast potential of our relationship."²³

Meanwhile, U.S. relations with Pakistan continued to deteriorate. Following the August 1998 embassy bombings in Kenya and Tanzania, the U.S. grew disenchanted with Pakistan because of its support for the Taliban regime in Afghanistan, host to Osama bin Laden and the Al-Qaeda terrorist network. Pakistan's support for Kashmiri militants was another irritant in U.S.-Pakistan relations. In 1998, a Pakistani-backed Kashmiri militant organization, the Harkat-ul-Ansar (subsequently renamed the Harakat-ul-Mujahideen) was placed on the U.S. list of international terrorist organizations. Following the October 1999 coup led by General Musharraf, Pakistan was also subjected to democracy sanctions under section 508 of the Foreign Assistance Act of 1961.²⁴

The Current Administration

As the Bush administration began to formulate its nonproliferation policy towards South Asia, it too ignored the importance of effective nonproliferation policies and influence strategies to U.S. strategic interests. Even before he was elected, George W. Bush pledged to remove all nuclear-specific sanctions on India and indicated that he would not pressure India or Pakistan to sign the CTBT.²⁵ Once in office, the administration chose to disregard India's declared intention to deploy operational nuclear weapons and appeared intent on forging a strategic partnership with India to advance perceived U.S. political and military objectives in South Asia and beyond.

Despite official denials, as U.S. relations with China deteriorated, the Bush administration also viewed India as a natural counterweight to China's influence and power in Asia.²⁶ In his confirmation hearing, Secretary of State Colin Powell declared that "India has the potential to keep the peace in the vast Indian Ocean region and beyond."²⁷ Following an unscheduled meeting in April 2001 between Indian External Affairs Minister Jaswanth Singh and President Bush at the White House, held when Sino-U.S. tensions had deteriorated over the detention of the U.S. air crew in China, the United States moved rapidly toward establishing close political and military ties with India. In April 2001, visiting Deputy Secretary of State Richard Armitage conveyed President Bush's intention to "work closely" with Prime Minister Vajpayee "to promote common interests in Asia and beyond."²⁸ In July 2001, during the visit of the Chairman of the U.S. Joint Chiefs of Staff, General Henry Shelton, the highest ranking U.S. military official to visit India after the May nuclear tests, the United States reinstated the Defense Policy Group, a forum for high-level military discussions, suspended after the nuclear tests.

Although Secretary of State Powell expressed concern about nuclear proliferation...senior administration officials departed radically from long standing U.S. policy and publicly acknowledged India's nuclear weapons status.

In August 2001, during U.S. Trade Representative Robert Zoellick's visit, the first by a U.S. representative in eight years, the U.S. granted preferential trade access to India. The United States, Zoellick emphasized, wanted "to engage India in a strategic dialogue that encompasses the full range of global issues."²⁹ A receptive BJP government, on its part, endorsed the Bush administration's National Missile Defense proposal, hoping to translate the resultant leverage into diplomatic and military incentives, including the removal of remaining sanctions, U.S. acceptance of Indian nuclear weapons deployment, and explicit U.S. acknowledgment of India's regional and global status.³⁰

Although Secretary of State Powell expressed concern about nuclear proliferation in South Asia, stressing that "we have really to make sure that this nuclear genie doesn't get any further out of the bottle,"³¹ senior administration officials departed radically from long standing U.S. policy and publicly acknowledged India's nuclear weapons status. Deputy Secretary of State Richard Armitage stated in Sydney, "India is a nuclear power. There are a lot of reasons we ought to engage with India and we're going to."³² Claiming also that past sanctions policies had failed to halt South Asian nuclear proliferation, the Bush administration obtained bipartisan Congressional support for the unconditional removal of the nuclear sanctions imposed on India in May 1998.³³

Senior administration officials initially expressed a willingness to remove similar nuclear-specific sanctions on Pakistan.³⁴ On September 1, 2001, however, new sanctions were imposed on Pakistan for its continued collaboration with China in the area of ballistic missile technology.³⁵ Just when U.S. perceptions of China as a strategic competitor were bringing the United States and India closer together while U.S. differences with Pakistan over its pro-Taliban policy and links with China had estranged the former Cold War allies, the September 11 terrorist attacks occurred, dramatically transforming U.S. policy in South Asia.

STATUS OF SANCTIONS ON INDIA AND PAKISTAN

On Both India and Pakistan

Nuclear Proliferation Prevention Act (includes Glenn Amendment) (1994) — WAIVED

Section 102(b) of the Arms Export Control Act

This amendment prohibits U.S. economic and military assistance to any non-nuclear weapon state, as defined by the Non-Proliferation Treaty, that conducts a nuclear explosion. Glenn amendment sanctions were imposed on both India and Pakistan after they conducted tit-for-tat nuclear tests in May 1998. Less than two months later, Congress passed legislation sponsored by Senator Sam Brownback (R-KS) that provided the President with the authority to waive, for a period of one year, Glenn, Symington, and Pressler amendment sanctions against India and Pakistan, excluding sanctions on military assistance, dual-use exports, and military sales. President Clinton moved quickly to exercise this waiver authority. On September 22, 2001, President Bush also used his waiver authority to lift sanctions.

On Pakistan Only

Symington Amendment (1976) — WAIVED

Section 101 of the Arms Export Control Act

This amendment prohibits most U.S. economic and military assistance to any country delivering or receiving nuclear enrichment equipment, material, or technology not safeguarded by the International Atomic Energy Agency (IAEA). In April 1979, President Carter imposed Symington amendment sanctions against Pakistan after discovering that Islamabad was secretly constructing a facility to enrich uranium.

Pressler Amendment (1985) — WAIVED

Section 620(e) of the Foreign Assistance Act of 1961

This amendment bars most economic and military assistance to Pakistan unless the President can certify on an annual basis that Pakistan does not possess a nuclear device and that U.S. aid would reduce the risk of Pakistan possessing such a device. Although Pakistan disclosed in 1984 that it could enrich uranium for nuclear weapons, and revealed in 1987 that it could assemble a nuclear device, the U.S. continued to certify Pakistan's non-nuclear weapons status until 1990. President George H.W. Bush finally imposed Pressler Amendment sanctions against Pakistan in 1990 when Pakistan lost strategic importance after the withdrawal of Soviet forces from Afghanistan.

Military Coup Sanctions (1988) — WAIVED

Section 508 of the Foreign Assistance Act of 1961

These sanctions prohibit most U.S. assistance to any country whose elected head of government is deposed by a military coup. They were imposed on Pakistan in 1999 after General Pervez Musharraf ousted Pakistan's democratically elected Prime Minister, Nawaz Sharif. On October 27, 2001, President Bush signed into law a bill waiving military coup sanctions for 2002 and granting him the authority to waive them again in 2003 if a waiver would help Pakistan make the transition back to democracy and would assist U.S. anti-terrorism efforts. The law also removes a 45-day Congressional notification requirement before the President can waive sanctions imposed for transferring or receiving missile technology.

Missile Technology Control Regime — IN FORCE

A voluntary agreement established in 1987, the Missile Technology Control Regime establishes a common export policy restricting the export of delivery systems and related technology for systems capable of carrying a 500kg payload at least 300km. The MTCR also prohibits the export of all systems intended to deliver chemical, biological, or nuclear weapons. It applies to ballistic missiles, space launch vehicles, sounding rockets, unmanned aerial vehicles, cruise missiles, drones, and remotely-piloted vehicles.

Under the Arms Export Control Act, entities found in violation of MTCR rules are barred from receiving U.S. missile and space cooperation for a period of at least two years. MTCR sanctions were imposed in 2000 on the Pakistani Ministry of Defense and the Space and Upper Atmospheric Commission for reportedly receiving missile technology and components from China. In 2001, sanctions were imposed on Pakistan's National Development Complex, again for receiving missile components and technology from China.

U.S. Policy in the wake of September 11

Counter-terrorism objectives have taken precedence over all other U.S. political, military and strategic objectives in South Asia, and Pakistan's military regime has become a major beneficiary of these changed U.S. priorities. To reward Pakistan for its cooperation with U.S. military action in Afghanistan, the United States has waived nuclear-specific sanctions and democracy sanctions on Pakistan. To retain Pakistan's support, the United States and its allies have also extended substantive incentives to the Musharraf regime. These include the restoration of economic assistance by Pakistan's major donor, Japan, cash grants for budgetary assistance by the U.S. and its allies, and the U.S.-led coalition's support for debt relief and enhanced loans from international financial institutions to Pakistan.³⁶ Against the backdrop of the United Nations General Assembly in New York in November 2001, President Bush announced a \$1 billion aid package to Pakistan.

To assuage Indian concerns about a renewed military relationship with Pakistan and acknowledging a continued U.S. interest in a strategic relationship with India, all Nuclear Proliferation Prevention Act sanctions on India have also been eased, including restrictions on military sales and prohibitions on high technology.

Because the September 11 attacks have heightened U.S. concerns about nuclear terrorism, the Bush administration seems inclined to shift the focus of its South Asian nonproliferation policy from nuclear restraint to issues of risk reduction and custodial safety and security. Some influential analysts and think tanks have long advocated this shift in emphasis, urging the United States to transfer non-nuclear systems and equipment to improve India and Pakistan's command, control, communications and intelligence. A few analysts have even called upon the United States to transfer safety technology such as permissive action links (PALs) to prevent accidental or unauthorized use or theft.³⁷

The United States is particularly concerned about nuclear custodial safety and security in Pakistan, apprehensive that pro-Taliban elements or Al-Qaeda sympathizers in Pakistan could steal nuclear weapons and/or fissile material or provide nuclear know-how to Osama bin Laden. President Bush has warned that terrorists are "seeking chemical, biological and nuclear weapons,"³⁸ a warning that is echoed by the IAEA Director General.³⁹ Pakistan's military ruler General Musharraf, however, rules out Pakistan's nuclear "assets falling into the hands of extremists," claiming that there are strict nuclear custodial controls in place and that Pakistan's armed forces are disciplined.⁴⁰ Foreign Minister Abdul Sattar stresses that dedicated formations of specially trained and equipped troops ensure the safe custody of Pakistani nuclear assets in storage, "Not a single incident of theft or leakage of nuclear material, components or technology has occurred so far," he states.⁴¹ To assuage U.S. concerns, the Pakistani regime did detain and interrogate a number of former nuclear scientists with pro-Taliban sympathies, suspected by the FBI and CIA of links with Osama bin Laden.⁴²

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While Secretary of State Powell states that he is confident that General Musharraf "understands the importance of ensuring that elements of this nuclear program are safe and secure," he adds that Musharraf should know that "if he needs any technical assistance on how to improve that security level, we'd be more than happy to help in any way we can."⁴³ Visiting U.S. military and intelligence officials have held discussions with the Musharraf regime on improving custodial safeguards and security and are reportedly examining ways in which the United States could assist Pakistan in improving surveillance at nuclear facilities, in minimizing the risks of insider theft through enhanced safeguards on transportation and improved evaluation of personnel, and in preventing accidental or unauthorized use.⁴⁴

NUCLEAR COMMAND AND CONTROL IN SOUTH ASIA

To gain U.S. acceptance of their nuclear directions and to assuage U.S. concerns about the proliferation risk posed by their nuclear assets, India and Pakistan claim nuclear theft is not possible since they have instituted effective security and safeguards. While fissile material protection, control and accounting is rudimentary in both states, it is adequate for their current state of nuclear development.¹ Although India and Pakistan also claim that independent nuclear regulatory authorities control and supervise all matters related to nuclear safety, the effectiveness of these bodies is debatable in the absence of checks and balances, accountability, and transparency. Custodial safety in both states is, moreover, endangered by fiscal and technological constraints and by the absence of a safety culture. A former Pakistani Army Chief, General Aslam Beg warns, "Pakistan and India may neither have the resources nor the capability to develop...a system for ensuring nuclear safeguards and security."² Since Indian and Pakistani stockpiles of fissile materials are currently small, their rudimentary safety and security systems, dependent primarily on guards, gates and guns, would, however, be sufficient to prevent nuclear theft by substate dissidents or terrorists. Should India and Pakistan opt for an operational nuclear force, the resultant nuclear arms race will include an expansion of these stockpiles, increasing the potential for nuclear theft and diversion.

To gain U.S. acquiescence for their nuclear development, India and Pakistan also claim that they have instituted sophisticated command and control mechanisms to prevent accidental or unauthorized use. "Even if nuclear arsenals are small," as in the case of India and Pakistan, "it is ultimately the control of these arsenals, not their size, which is crucial in preventing a conventional crisis from escalating into a nuclear nightmare."³ In India and in Pakistan, nuclear chains of command are indeed a threat to crisis stability. In democratic India, where an elected Prime Minister has ultimate nuclear launch authority, physical control of nuclear assets rests with a nuclear scientific-bureaucratic establishment that has historically exercised an inordinate influence over India's nuclear weapons program. Although the Indian military would have to use nuclear weapons during a conflict, military leaders are excluded from nuclear decision making.⁴

Attempts thus far to integrate the military chiefs into a nuclear command and control structure, possibly through the establishment of a National Command Authority, have not borne fruit. Even after an arrangement is finally devised, the traditional distrust between India's political and military establishments will undermine its implementation. Disagreements between India's civil and military authorities over nuclear command and control are already evident. The Kargil Review Committee, submitted to the government after the May-July 1999 conflict with Pakistan states, "The nuclear posture adopted by successive prime ministers put the Indian Army at a disadvantage vis-à-vis its Pakistani counterpart. While the former was in the dark about India's nuclear capability, the latter, as the custodian of Pakistan's nuclear weaponry, was fully aware of its own capability. Three former Indian Chiefs of Army Staff expressed unhappiness about this asymmetric situation."⁵

Set up in August 1999, India's National Security Council, which consists of the National Security Advisor, the Strategic Planning Group (SPG), the National Security Advisory Board (NSAB) and the National Security Council Secretariat (NSCS), has proved incapable of performing its given task of overseeing national security, including nuclear planning. The NSC has three tiers, at the level of the cabinet, secretaries and experts. According to NSAB Chief, Dr. Subramanyam, "It is quite obvious adequate thought has not been given to develop an appropriate staff for the NSC to function effectively," warning that an "NSC on paper without any activity will prove fatal to future holistic national security management in the country."⁶ The SPG, for instance, is chaired by the Cabinet Secretary and consists of 16 secretaries and the service chiefs who do not have the time or the capacity for strategic planning; the NSAB consists of honorary non-governmental appointees with no access to confidential documentation; the NSCS, which is also the Joint Intelligence Committee, is multitasked and overburdened. Some Indian analysts believe that Prime Minister Vajpayee's failure or reluctance to delegate authority has resulted in a nonfunctional NSC, a failure to evolve a long term national security policy, and the complete absence of even a partially visible nuclear chain of command.⁷

Pakistan established a National Command Authority (NCA) in February 2000, "responsible for policy formulation and... employment and developmental control over all strategic nuclear forces and strategic organizations."⁸ The NCA comprises of two committees, the Employment Control Committee (ECC) and the Development Control Committee (DCC) and Secretariat, and the Strategic Plans Division. While nuclear release authority rests with the head of government, command and control is shared by the political and military leadership. The Employment Control Committee is headed by the head of government and includes the foreign minister as its deputy chairman, the ministers of defense and interior, the Chairman of the Joints Chiefs of Staff Committee (JCSC) and the three service chiefs. The Development Control committee, responsible for the development of "strategic assets" is also chaired by the head of government and includes the JCSC as Deputy Chairman, the three service chiefs, the Director General of a Strategic Plans Division and the scientific community.

This sharing of nuclear command and control between civil and military authorities, however, only exists on paper. There is in fact "no established balance between political and military decision makers" in Pakistan.⁹ Judging from its past record, if and when democracy is restored in Pakistan, it is unlikely that an elected head of government will exercise effective control over nuclear decision making. The composition of the NCA, including the ECC and DCC is in fact heavily tilted in favor of the military leadership. The NSC Secretariat, the Strategic Plans Division, responsible for "planning and coordination" is headed by a senior army officer, and is based in the Joint Services Headquarters under the JCSC.¹⁰ Thus the status quo will prevail in Pakistan. All nuclear facilities will remain under the military's control and there will be no civilian oversight over nuclear decision making.

Both India and Pakistan claim that their nuclear warheads are currently unassembled and stored at separate sites from delivery systems, preventing the potential for theft or unauthorized or inadvertent nuclear use, claims that are substantiated by the Pentagon.¹¹ This situation would drastically change if India and Pakistan operationalize their nuclear arsenals, increasing the risks of nuclear use and nuclear terrorism. Even at their present level of military readiness, India and Pakistan's nuclear arsenals pose a risk to crisis stability and a future crisis between the two nuclear adversaries could conceivably escalate from the conventional to the nuclear level.

¹ Paul Levanthal and Brahma Chellany, "Nuclear Terrorism: Threat, Perception, and Response in South Asia," *Terrorism* 11 (1988), 464.

² Zia Mian, "Renouncing the Nuclear Option" in Ahmed and Cortright, *Pakistan and the Bomb*, 55.

³ Cris Smith, *Factors Behind the Coup by the Pakistan Military and How it Affects Nuclear Instability*, Center for Strategic and International Studies, CSIS Publications. <http://www.csis.org/html/op991014PakSwift.html>.

⁴ Joeck, "Nuclear Relations in South Asia," 140-141. See also Chari, "India's Nuclear Doctrine: Confused Ambitions," 131.

⁵ Sawhney, "Pakistan Scores Over India in Ballistic Missile Race," 34.

⁶ Seema Mustafa, "Top Indian Defense Advisors Differ Strongly on Security Issues," *The Asian Age*, October 31, 2000; Ashok K. Mehta, "Sweeping Changes Likely in National Security," *The Pioneer*, December 15, 2000.

⁷ According to a former Director-General Military Operations General V.R. Raghavan, the NSAB's failure to provide a viable nuclear doctrine "has left the country which as nuclear weapons without a strategic doctrine." V.R. Raghavan, "Where the NSC has Failed," *The Telegraph*, December 11, 2000. See also Mustafa, "Top Indian Defense Advisors Differ Strongly on Security Issues."

⁸ Text of Pakistan's announcement of a Nuclear Weapons Command and Control Mechanism, February 3, 2000 in "Pakistani Nuclear Command and Control Mechanism," *Disarmament Diplomacy*, 43 (2000): <http://www.acronym.org.uk/43candec.htm>. See also Shakil Sheikh, "Pakistan's National Command Authority to Control All Strategic Organizations," *The News*, November 28, 2001.

⁹ Smith, *Factors Behind the Coup by Pakistan Military and How it Affects Nuclear Instability*.

¹⁰ "Pakistani Nuclear Command and Control Mechanism." See also M.A. Naizi, "NCA: But with a Military Tinge," *The Nation*, February 4, 2000.

¹¹ The Pentagon estimates that India and Pakistan probably have a small stockpile of nuclear weapons components and could assemble a few nuclear weapons within days. India would opt for fighter-bomber aircraft as a delivery system while Pakistan has aircraft and possibly ballistic missiles available for delivery. *Proliferation: Threat and Response*, 23, 27.

However, since Pakistan's nuclear weapons are currently de-mated and because its stockpile of weapons grade material is relatively small, even its rudimentary custodial security and safeguards should be an adequate deterrent against pilferage. The potential for insider theft also appears minimal since Pakistani soldiers are loyal to their chain of command and there is little evidence of support for al Qaeda within the officer corps.

South Asian Nuclear Directions: Looking Ahead

Should India decide to arm its ballistic missiles with nuclear warheads in the near term, it will encounter significant technological constraints because Missile Technology Control Regime restrictions on dual-use technology have slowed down India's ballistic missile development. Indian policymakers are also concerned about potential diplomatic costs, in particular the U.S. response to resumed nuclear testing, essential to validate India's nuclear weapon designs. Should existing denial regimes weaken and if India is assured of a benign international response, it will resume nuclear testing.⁴⁵

Once technological hurdles are overcome and the external environment is favorable, India could then opt for an operational nuclear arsenal. Given its reactive and India-centric policy, Pakistan will inevitably retaliate to an Indian nuclear deployment in kind.

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If Pakistan deploys nuclear weapons, it would disperse its nuclear-tipped ballistic missiles to reduce their vulnerability and would also place its nuclear weapons on hair-trigger alert to offset conventional asymmetries and to compensate for its lack of strategic depth. Although India is predisposed toward centralized control, it is equally likely to move towards delegated control and dispersal to increase the survivability of its nuclear assets, particularly vis-à-vis China.⁴⁶ While Indian policymakers claim that

they will not opt for a launch-on-warning posture, should Pakistan place its nuclear arsenal on hair-trigger alert, India will be pressured to follow suit.⁴⁷

India and Pakistan's mutual suspicions and hostility, geographic contiguity, the absence of transparency, their use of coercive nuclear diplomacy, poor intelligence and inadequate command, control and communications systems will assume a new significance in the presence of deliverable nuclear weapons. As both states disperse their nuclear arsenals, mating warheads with delivery systems and placing them on hair-trigger alert, the potential for accidental, unauthorized or inadvertent nuclear use will inevitably increase. The risk of intentional, including pre-emptive nuclear use will likewise increase because of misperception, misinformation or miscalculation.

Problems of misperception and miscalculation are especially serious given India and Pakistan's divergent nuclear doctrines. Since Indian policymakers do not rule out the use of conventional force in a conflict with a nuclear adversary, Pakistan could resort to a preemptive strike to counter a perceived Indian conventional or nuclear threat to its vital military and political assets. Despite its declared no-first use posture, India could be tempted to pre-empt the pre-empter.⁴⁸

Operationally deployed nuclear weapons in South Asia will also increase the potential for nuclear theft and heighten dangers that non-state or sub-state actors, including anti-U.S. terrorists, might gain access to India and Pakistan's fissile materials and even weaponry. In a 1995 article, Pakistan's current Foreign Minister Abdul Sattar warned that deploying nuclear-armed ballistic missiles would undermine the "survivability of a small nuclear force. The threatened state would be faced with the necessity of the enlargement and dispersal of its nuclear arsenal and launchers, making the safety and security of nuclear weapons and command and control over them more problematic and adding to dangers of custodial accidents and leakages."⁴⁹ As India and Pakistan

INDIAN AND PAKISTANI NUCLEAR DOCTRINES

Following its May 1998 nuclear tests, India has declared its intention to deploy operational nuclear weapons and their delivery systems. On August 17, 1999 an officially constituted Advisory Board to the National Security Council released a draft nuclear doctrine, disclosing that “India’s nuclear forces would be effective, enduring, diverse, flexible and responsive. . . . These forces will be based on a triad of aircraft, mobile land-based missiles and sea-based assets.”¹ However, in the absence of external sources of technology, India lacks the means to deploy a triad. For instance, it has failed thus far to develop a sea-launched missile, the Sagarika.² For this and other reasons, the BJP government is therefore reluctant to grant official sanction to the proposed draft nuclear doctrine. The doctrine’s release should, however, be considered a declaration of India’s intention to operationalize its nuclear arsenal.

While India is still in the process of developing a nuclear doctrine, Indian policy makers claim that India would deploy only a minimum nuclear deterrent to prevent a nuclear threat. Continued reliance on ambiguity makes it difficult to assess India’s future force posture.³ Should India’s economic and technological resources permit, it could, however, opt for an ambitious nuclear arsenal since it justifies its nuclear deterrent on the grounds of both a perceived Pakistani and Chinese threat and because it also favors massive nuclear retaliation.⁴ India would most likely adopt counter-value targeting to degrade Pakistan’s conventional and nuclear infrastructure.⁵ While India has a declared no-first-use nuclear policy, senior Indian political and military officials do not rule out the use of limited conventional force against a nuclear-armed adversary, a doctrine that is only relevant in the Pakistani context. According to Army Chief, General Sunderajan Padmanabhan, there is “space for conventional conflict between a low intensity conflict and an all-out nuclear war.”⁶

Pakistan, like India, is in the process of evolving a nuclear doctrine and Pakistani decision makers also claim that they will only maintain a minimum credible nuclear deterrent. “We only want to maintain a minimum deterrent to deter any aggression against our homeland” states Pakistan’s military ruler, General Pervez Musharraf.⁷ Since Pakistan continues to rely on nuclear opacity, it refuses to define what such a deterrent would entail. Because Pakistan lacks strategic depth and given its conventional asymmetry vis-à-vis India, Pakistani policymakers favor a nuclear first use posture and imply that Pakistan could resort to nuclear use even in the event of an Indian conventional attack. Following the May 1998 nuclear tests, Prime Minister Nawaz Sharif emphasized, “These (nuclear) weapons are to deter aggression, be it nuclear or conventional.”⁸ To deter an Indian conventional or nuclear threat, Pakistan is also likely to adopt counter-value targeting.

¹ Text of India’s Draft Nuclear Doctrine in “Draft Report of the National Security Advisory Board (NSAB) on Indian Nuclear Doctrine, 17, August 1999,” *Disarmament Diplomacy* 39 (1999). <http://www.acronym.org.uk/39draft.htm>.

² The maiden test flight in April 2000 of the Dhanush, another sea-launched naval version of the Prithvi II, with a range of 350km, also failed.

³ India’s External Affairs Minister Jaswant Singh emphasizes that “India shall maintain a minimum nuclear deterrent” and a declared “no-first-use doctrine.” UNI, “India Not to Engage in an N-arms Race—Jaswant,” *The Hindu*, November 29, 1999.

⁴ A former official in India’s Ministry of Defense, P.R. Chari believes that the inter-services rivalry that will result from weaponization, as each service tries to get their own weapons systems, will also pressure the political leadership into “developing more and more nuclear weapons, similar to what happened. . . in the United States during the Cold War.” P.R. Chari, “Nuclear Restraint and Risk Reduction in South Asia.” Presentation at a joint Carnegie Endowment for International Peace and Stimson Center seminar, Washington DC, February 16, 2001.

⁵ “The adoption of a simple deterrence philosophy, with a minimum deterrent aimed at destroying a handful of cities in the second strike mode is all that is required,” states a former Indian Army Chief. General Krishnaswami Sundarji, “A Proposed Approach for the Solution of the South Asian Nuclear Conundrum.” Paper, *Workshop on Possible Interlinked South Asian and Worldwide Nuclear Arms Control and Disarmament Initiatives*, Fudan University, Shanghai, February 1994, 12, 16.

⁶ Agence France Presse, “Army Trained for a Nuclear War,” *The Washington Post*, October 2, 2000.

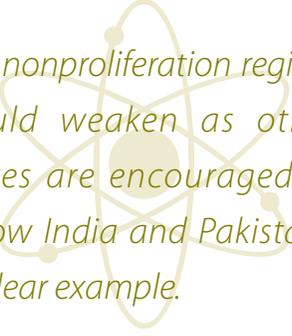
⁷ Monitoring Desk, “Musharraf for Russian Mediation on Kashmir,” *Dawn*, June 1, 2001.

⁸ Pravin Sawhney, “How Inevitable is An Asian ‘Missile Race?’” *Jane’s Intelligence Review* (January 2000), 30-4.

use their limited fiscal resources to enlarge their stockpiles of weapons-grade plutonium and uranium, it is unlikely that they will pay equal attention to the strengthening of custodial security and safety measures, given finite financial resources, technological constraints, and above all, the lack of a safety culture.

Deliverable nuclear arsenals in South Asia would impair vital U.S. regional and global interests by contributing to a new wave of proliferation. In one of its first reports to the Bush administration, the Department of Defense warned that the potential for the proliferation of technologies and expertise would increase in South Asia as India and Pakistan became more self-reliant in producing nuclear weapons and missiles. Both could then become potential suppliers of nuclear technology, leading to further proliferation, the report warned.⁵⁰

The nonproliferation regime would weaken as other states are encouraged to follow India and Pakistan's nuclear example.



The nonproliferation regime would weaken as other states are encouraged to follow India and Pakistan's nuclear example.⁵¹ The deployment of nuclear weapons by Pakistan could strengthen the position of nuclear advocates within the policymaking processes of its regional rival, Iran. An Indian deployment of nuclear-armed ballistic missiles that are capable of reaching vital Chinese targets would inevitably affect China's nuclear force posture. An India-Pakistan nuclear arms race could thus fuel parallel Pakistan-Iran and Sino-Indian arms races. Above all, the presence of operational

nuclear arsenals in India and Pakistan would increase the threat of a accidental, unauthorized, inadvertent or even intentional nuclear exchange, damaging all U.S. interests in South Asia: political, strategic and commercial.

Recommendations for U.S. Policy

U.S. policymakers have repeatedly warned about the risks of nuclear use between India and Pakistan. Testifying before the Senate as recently as February 2001, CIA Director George Tenet warned that India and Pakistan's "deep-seated rivalry, frequent artillery exchanges in Kashmir, and short-flight times for nuclear-capable ballistic missiles and aircraft all contribute to an unstable nuclear deterrent." He added that "both sides seem quite willing to take risks over Kashmir" and "this—along with their deep animosity and distrust—could lead to decisions that escalate tensions."⁵²

Concurring with this bleak prognosis of nuclear crisis stability in South Asia, the Pentagon emphasized in a 2001 report, "While each side declares that it seeks to avoid war, they could easily stumble into conflict by misinterpreting intentions or military posture along the international border or as a result of daily military exchanges along the LOC in Kashmir." The report observed, "Given the long-standing hostility between the two countries, even a minor conflict runs the risk of escalating" into a nuclear exchange.⁵³

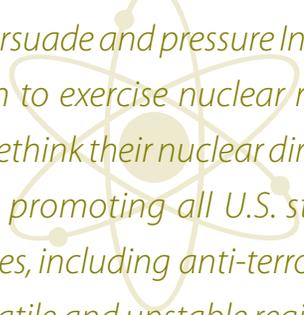
Nuclear weapons deployment is not inevitable in South Asia. The Bush administration must pay attention to the warning signals and pressure India and Pakistan to cap their nuclear weapons capabilities below the deployment threshold and to freeze the production of weapons-grade material through a coherent and consistent nonproliferation policy and effective influence strategies. To change India and Pakistan's cost-benefit analysis on weaponization, the U.S. must warn both states that nuclear weapons deployment will result in stringent unilateral and international diplomatic and fiscal sanctions, targeting their nuclear policymakers and establishments. Given the gravity of nuclear risks in South Asia, the United States must also strengthen rather than weaken existing unilateral and U.S.-led international denial and nonproliferation regimes, using them to prevent India and Pakistan from acquiring the technological means for nuclear weapons deployment. Missile Technology Control Regime sanctions should not only be retained, but also the U.S. must continue to pressure Russia and China to end all transfers of destabilizing conventional and nuclear weapons technologies to South Asia.

Should the United States cross the line from passive acceptance to active assistance in helping the two countries manage their nuclear arsenals, weaponization and deployment may well occur much sooner. Providing India and Pakistan with safety mechanisms such as PALs would not only violate U.S. obligations under the Non-Proliferation Treaty, but would also undermine the entire nonproliferation regime itself and invite China and Russia to provide nuclear and ballistic missile technology to their respective South Asian allies and possibly to other proliferating countries. Even the transfer of non-nuclear systems and equipment to India and Pakistan could prove counterproductive, creating a false sense of security in their ability to safely manage nuclear assets and thereby moving them further in the direction of nuclear weapons deployment.

Although India rejects a U.S. role in mediating its differences with Pakistan over Kashmir, the United States must also engage with India and Pakistan to contain conflict between the two nuclear adversaries.⁵⁴ The close ties that the Bush administration has established with both India and Pakistan to promote its anti-terrorist objectives present an unprecedented opportunity to the United States to persuade both states to abjure the use of force and to peacefully resolve their bilateral differences. President Bush has offered to “work and consult closely with India and Pakistan to make sure that part of the world is as stable as it can possibly be.”⁵⁵ The United States must stand prepared to deliver on its offer.

Deputy Secretary of State Richard Armitage has warned that rising tensions between India and Pakistan over Kashmir have made the disputed territory the “most dangerous place on earth,” echoing former CIA director William Webster’s statement during the 1990 crisis. Webster, says Armitage, “was right 11 years ago,” adding, “You had two then third world powers armed with nuclear weapons who were shooting, shouting and glaring at each other.”⁵⁶ Knowing full well the high risks of nuclear use in South Asia, the United States cannot afford to ignore nuclear nonproliferation and arms control objectives as it engages with India and Pakistan to promote its anti-terrorist objectives. Although Secretary of State Colin Powell stresses, “We have made it clear to both countries that we don’t want to see nuclear escalation any further in the region,”⁵⁷ unconditional U.S. incentives and the Bush administration’s tacit acceptance of India and Pakistan’s nuclear status could make escalation possible by encouraging India to deploy nuclear weapons. The resultant increase in bilateral tensions and suspicions would heighten the potential for a conventional war that could escalate to the nuclear level. The Bush administration can and must persuade and pressure India and Pakistan to exercise nuclear restraint and to rethink their nuclear directions, thereby promoting all U.S. strategic objectives, including anti-terrorism, in that volatile and unstable region.

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Notes

- ¹ Colin L. Powell, "A Long Hard Campaign," *Newsweek*, October 15, 2001.
- ² On October 17, 2001, the House of Representatives passed a bill enabling President Bush to waive democracy sanctions under Section 508 for a two year period. Glenn amendment sanctions had been waived on September 22, 2001.
- ³ Karen DeYoung, "Bush Seeks Power to Lift Arms Curbs," *Washington Post*, 24, 2001.
- ⁴ In a visit to reassure India that the US partnership with Pakistan was not at India's expense, Defense Secretary Ronald Rumsfeld told India's Defense Minister George Fernandes that his aim was "to strengthen the military-to-military and defense ties between our two countries, which I think are so important." Celia W. Dugger, "US and India Map Path to Military Cooperation," *New York Times*, November 6, 2001.
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