

Nuclear Stability in South Asia

Andrew C. Winner

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A Publication by

The Institute for Foreign Policy Analysis, Inc.

In Association with The Fletcher School of Law and Diplomacy, Tufts University

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EXECUTIVE SUMMARY

THE SEPTEMBER 11 TERRORIST ATTACKS on the United States and the subsequent war in Afghanistan have focused world attention on South Asia. These events represent only the latest in a series of crises in that region of the world, and Washington, and much of the rest of the international community, tend only to pay attention to it when explosions occur. This tendency is unfortunate because it means that policies are rarely comprehensive or long lasting. In the wake of this latest crisis, Washington has been admonished not to repeat the mistakes of the past by leaving the region to its own devices once the smoke has cleared. This is sound advice, but it begs the question of what any long-term engagement strategy should seek to accomplish. It seems clear that one objective will be rooting out what remains of the al-Qaeda terrorist network in the region and ensuring that such a group can never use the region again as a base of operations. Another objective, however, should be improving the nuclear stability of the region – that is, ensuring that states or non-state actors in this newest of openly declared nuclear hot spots do not use nuclear weapons. Regardless of the outcome of the war on terrorist groups and their supporters in the region, the fact that two states with a history of wars and crises possess overt and evolving nuclear arsenals should be a cause for U.S. concern.

The situation in Pakistan and between India and Pakistan in the aftermath of September 11 has only heightened the need for careful study of and changes to U.S. and international policy with regard to nuclear stability on the subcontinent. Two examples in the aftermath of September 11 serve to illustrate this point. First, the United States and other states became more concerned about the security of Pakistan's nuclear weapons as fighting began in Afghanistan and opposition to Pakistani President Musharraf's decision to support the United States began to mount. Generalized worries about Pakistan's weapons falling into the hands of extremists or terrorist groups existed before September 11, but the situation in Afghanistan heightened the perceived, and possibly the actual, risk. In October, the Pakistani government arrested two of its nuclear scientists and questioned them regarding contacts they had with Osama bin Laden's al-Qaeda network. The fear was that they might have passed on nuclear weapons secrets, technology, or material to terrorist groups. A retired Pakistani naval officer was also investigated for having possibly assisted Osama bin Laden and his al-Qaeda network in obtaining nuclear technology. In a related worry, the Pakistani intelligence services' ties to al-Qaeda was highlighted, with the added concern that elements of the two organizations might have plotted to gain control of some of Pakistan's nuclear weapons. Second, as the United States initiated its bombing campaign against Afghanistan under the rubric of a war on terrorism, new attacks took place in Indian-controlled Kashmir. India, believing that Pakistan has long supported such attacks and was encouraging these to occur as a way of defusing internal tension over the situation in Afghanistan, threatened to retaliate with con-

ventional forces across the line of control into Pakistan against terrorist training camps. Pakistan immediately responded by saying that it would defend its territory, raising the possibility of war and escalation between the two nuclear-armed powers.

Seeing the issue of nuclear stability only through the lens of the latest crisis, however, risks the development of overly narrow policy prescriptions that will not help to ameliorate the problem. The problem is not merely that the region is prone to crises or that any political-military crisis carries with it the potential for escalation to the use of nuclear weapons. It is that the types of crises endemic to the region interact with the ongoing developments in nuclear doctrine and force structure by both Pakistan and India to create a range of possible situations in which nuclear weapons may be used. To address that full range of interactive situations, it is necessary to have a better understanding of exactly how crisis scenarios interact with nuclear doctrine and force structure decisions that are being made, and will continue to be made, in both Islamabad and New Delhi.

This study seeks to do just that. It provides an analytic framework for reviewing and developing policies regarding nuclear stability on the subcontinent. It develops proposals for specific, prioritized stability measures that would most directly ameliorate the most likely problems of nuclear stability between India and Pakistan in future crises. The goal is for the United States to induce India and Pakistan to adopt these stabilizing measures, or to eschew certain destabilizing moves, in order to reduce the chances for a nuclear exchange on the subcontinent.

The study is based on three key assumptions. The first is that both India and Pakistan

will continue to develop nuclear weapons and will likely deploy them. The second is that arms control measures sought by the Clinton administration, such as Indian and Pakistani adherence to the Comprehensive Test Ban Treaty, address only part of the problem and are actually peripheral to questions of stability in crises. The third is that, despite recent efforts by the two states to address bilateral issues and negotiate confidence-building measures, political-military crises between them will continue and have the potential to spiral into a nuclear exchange.

This study examines the overall goals sought by Washington and the international community from 1998 through 2000, and the balance between concerns of nonproliferation and crisis stability. Based on this assessment, a new analytical framework is developed to guide the reshaping of policies, and specific recommendations will be offered for consideration by India and Pakistan, the international community, and particularly by Washington. Recommendations for Washington are put into the context of broader relations and interests that the United States has with each country bilaterally and in the region more generally.

The first part of this study covers the internal and external forces that could drive the nuclear postures in South Asia. It examines emerging Indian and Pakistani force structures and doctrines and then postulates several plausible nuclear futures and the implications of these futures for strategic stability. The key drivers are as follows. For both sides, domestic politics can have a critical influence on how they each pursue their nuclear postures. In India, the deeply embedded political tradition of absolute civilian supremacy over the military has led to tight civilian control over weapons development that is inherently mili-

tary in nature. In addition, the ruling Hindu nationalist Bharatiya Janata Party (BJP) has as a central component of its ideology the fulfilling of India's quest for nuclear-power status. As long as the BJP remains a key political party in India, it is likely to be a strong supporter of a robust posture and doctrine. Finally, key political figures in India have been arguing of late that the country needs to adopt a new strategic doctrine that better reflects its position in the world. Such a new strategic outlook could influence decisions on future nuclear force postures and doctrines. In Pakistan, the long-standing influence of the military on strategic matters, coupled with the current formal rule of the military on all governmental matters, will have significant consequences for future nuclear structures and doctrines.

Other key drivers in future force posture and doctrine decisions include the historical strategic competition between the two states, including the intractable dispute over Kashmir. Fundamental power asymmetries between the two (such as landmass, population, military power, and economic health) will also determine future paths of their nuclear postures. In addition to these tangible measures of power, both sides continue to suffer from severe misperceptions about the intentions and capabilities of the other that could in turn influence postures and, more critically, responses during times of crisis. In addition to the bilateral dynamic between India and Pakistan, broader strategic factors could influence nuclear developments in South Asia, including particularly the direction China takes in its military build-up and in its ongoing provision of military and strategic assistance to Pakistan. Several technological considerations will influence the scale and the sophistication of nuclear weapons and associated delivery systems. For India, its

policy of self-reliance in these areas has been a double-edged sword, shielding it from outside embargoes but also slowing development to the rate of India's domestic industrial capacity, which has proven less than world class. For Pakistan, reliance on outside sources for its nuclear program – particularly North Korea and China – could render it vulnerable to future limitations or cutoffs in response to U.S. pressure or other considerations. Finally, the level of economic growth in each country will frame the resources devoted to developing nuclear weapons, although the historical record indicates that economic under-performance has not deterred advances in either country.

India's Current and Future Nuclear Force Postures

While the secrecy surrounding the nuclear programs in both India and Pakistan makes analysis difficult, it is possible to sketch the outlines of their current nuclear doctrines and capabilities based on open sources. India's nuclear doctrine remains in a state of transition, and a comprehensive nuclear strategy has yet to emerge. The only semi-official document, the August 1999 National Security Advisory Board statement, was widely seen as more of a wish list than a roadmap, and the Indian government distanced itself from the report after it was published. Based on various other government statements and India's strategic situation (large landmass and conventional superiority to Pakistan), the beginnings of a doctrine can be derived. India has a declared no-first use of nuclear weapons policy. This second-strike posture enables India to retaliate at a time (days, weeks, or even months) and scale of its own choosing. The strike would be a counter-value one, essentially targeting cities. Such a

doctrine is applicable to Pakistan and China, the two likely short- and medium-term state threats to India's security. Both contributing to, and a result of, India's doctrine is its command and control structure. The strong desire to have civilian dominance and control over the decision-making process has led to joint custody of nuclear capabilities, with the military controlling the delivery systems and civilian authorities controlling the actual nuclear bombs or warheads. Should the need for nuclear use arise, the civilians and military would convene to integrate these separated elements and the civilians would then incrementally decentralize the authority for the military commanders to carry out the missions.

The size and shape of India's current nuclear forces are not certain, but various estimates provide a reasonable picture. Based on publicly available data, it is estimated that India has the capability to manufacture fission, boosted fission, and fusion (thermonuclear) weapons although some analysts doubt that the last category is fully developed. Through a long-standing nuclear energy and nuclear weapons development program, India has a stockpile of fissile material (plutonium) of somewhere upwards of three hundred kilograms, enough to produce between sixty and seventy-five early-generation devices. Despite this rather large stockpile of fissile material, India may so far have only assembled around a half-dozen bombs, most likely gravity bombs, for delivery by India's *Mirage*, *Jaguar*, or *MiG-27 Flogger* aircraft. In addition to aircraft, India has had an indigenous ballistic missile program for many years that has produced systems capable of delivering nuclear warheads. India currently operates three variants of the nuclear-capable, liquid-fueled, short-range *Prithvi* missiles

(ranging from 150 to 350 kilometers). In addition it has developed the medium- to intermediate-range *Agni* series. The *Agni-I* was successfully tested in 1989 after long delays and has a range of 1,500 kilometers with a 1,000-kilogram payload. The *Agni-II*, which succeeded the *Agni-I*, has a 2,500-kilometer range with a 1,000-kilogram payload. This missile is fully operational and is being deployed in the 2001-02 timeframe. The *Agni-III*, which is in development, will have a 3,500-kilometer range, which would enable New Delhi to hold at risk targets throughout China.

Based on how the various drivers interact, and how the strategic situation around India changes over the next ten to fifteen years, three notional future force structures and associated doctrines could emerge. A low nuclear posture would look much like today's, with a small number of warheads and bombs and only a few overtly deployed ballistic missiles. India would retain its no-first use stance, and its targeting would remain countervalue in nature. A medium nuclear posture would see more solid-fuel *Agni* missiles being deployed and slowly replacing aircraft as the primary nuclear delivery vehicle. Warheads and delivery systems would remain de-mated, but they would be in close proximity to one another in order to ensure more timely response options. A high nuclear posture could not happen until closer to 2015, simply because of development bottlenecks and funding limitations. Such a posture would see the adoption of a triad, including submarine-launched ballistic or cruise missiles with nuclear warheads. Warheads would be assembled with missiles, and command and control would be more decentralized, with the military having significantly more autonomy and involvement in the decision-making process. The most likely outcome in the next ten to fif-

teen years is something between the low and medium option, but all three must be examined as one considers the potential for future crisis instability.

Pakistan's Current and Future Nuclear Force Postures

Not surprisingly, Pakistan's nuclear force posture and doctrine differ significantly from those of India. Pakistan's nuclear strategy is driven exclusively by what Islamabad sees as the threat from India. Unlike India, where civilians dominate strategic thinking, in Pakistan the military controls both the development of systems and the strategy and doctrines adopted for their use. Finally, Pakistan has relied extensively and more recently on outside sources for both its nuclear and ballistic missile programs. While not stated as such, Islamabad's nuclear doctrine is essentially first use, largely because of Pakistan's conventional inferiority to India. What this use would be is ambiguous, but three policy objectives can be inferred: 1) Islamabad hopes to deter first nuclear use by India; 2) it wants to have a capacity to deter or blunt an Indian conventional attack; and 3) it wants to use nuclear weapons to demonstrate intent and, if possible, internationalize any future crisis. Pakistan has announced a national command authority and provided a few details about its structure, but in essence the command authority lies with the military up to the head of government – currently General Musharraf.

Pakistan began its nuclear program in earnest in the early 1970s, in response to its defeat in the 1971 war with India. China is suspected of having provided significant support for the program up to and including possible designs for warheads, fissile material, and technology to produce highly enriched uranium. Pakistan's

1998 nuclear tests used highly enriched uranium and were fission devices, not crossing the line into thermonuclear explosions. The nuclear infrastructure centers on uranium enrichment technologies, and best estimates put Pakistani stockpiles of fissionable material at more than six hundred kilograms of highly enriched uranium and over five kilograms of plutonium for approximately thirty-five to forty warheads.

With Chinese and North Korean assistance, Pakistan has amassed an array of nuclear-capable ballistic missiles based on both liquid- and solid-fueled technologies. Pakistan has apparently acquired from North Korea technologies for the liquid-fueled *Ghauri-I* and *-II* with 1,500- and 2,000-kilometer ranges respectively. Pakistan successfully tested the *Ghauri-II* in April 1999. Islamabad may also be developing the *Ghauri-III* based on the 3,000-kilometer range *Taepodong-I* ballistic missile, which would enable Pakistan to hit any target in India. The Chinese have also supplied Islamabad with technologies and fully assembled missiles for the solid-fueled *Shaheen* series. The *Shaheen-I*, *-II*, and *-III* – have ranges of 300 kilometers, 800 kilometers, and 2,500 kilometers, respectively. Pakistan has indicated that the *Shaheen-II* would satisfy the nation's long-range strike requirements against India. The indigenously produced *Hatf* series missiles have been deployed only on a limited basis because of their modest ranges (100 and 280 kilometers respectively). In addition to ballistic missiles, its main delivery vehicle, Pakistan also has several aircraft types that may have been modified for nuclear delivery and now serve as backups: A-5 *Fantans*, *Mirage-III/5s*, and F-16s.

Three future Pakistani nuclear force postures and associated doctrines are posited for analytical purposes. The first, low posture is

what Pakistan appears to be edging toward today. This involves a limited number of nuclear weapons to be delivered by a mix of aircraft and ballistic missiles. Over time, the ballistic missile component would replace the aircraft. Most of the weapons would be targeted on Indian cities, but a few may be kept in reserve for demonstration purposes or actual use on a conventional battlefield. A medium posture for Pakistan would consist of a larger force mounted on solid-fueled missiles such as the *Shaheen-II*. Like the low force posture, the targets would primarily be cities, but a warfighting option would be more heavily weighted. Weapons would still be de-mated from missiles, but command and control would be more robust and sophisticated to track and control a larger, mobile missile force. Finally, a high posture for Pakistan would consist of a very large solid-fueled, road-mobile ballistic missile force that would be targeted both on Indian cities and on its nuclear and command and control facilities. Research and development on a naval option for nuclear delivery would be accelerated and an inventory of shorter-range ballistic missiles would be stockpiled for use with nuclear weapons in a warfighting mode against Indian conventional forces. The most likely outcome is a low to medium posture, but in the ten- to fifteen-year timeframe, Pakistan could opt for the high posture if it believes the Indian threat is severe and it continues to receive substantial support from China.

Historic Crisis Instability

Regardless of which force postures and doctrines are adopted over time, a key condition to ensure strategic stability is mutual vulnerability. As long as both sides can credibly inflict unacceptable damage on each other, mutual

deterrence should work if there are no shortcomings in the perceptions or decision-making processes of either of the two sides. The history of crises between the two states, however, suggests that perception problems and decision-making shortcomings are all too common, potentially undermining nuclear deterrence. Moreover, nuclear deterrence may work at certain levels of conflict, but it might, paradoxically, make conflict more likely at levels below those where nuclear forces might actually be used.

An analysis of past crises and wars between India and Pakistan has revealed two not surprising themes that have implications for future crisis stability, particularly the possibility of the use of nuclear weapons in those crises. The first is that many of the crises were started over the still-unresolved Kashmir question. While not the sole cause of all crises or wars, it remains a point of contention that has international and domestic political implications. The latter point, its relation to domestic politics, makes it particularly problematic in crisis terms because of the volatility of domestic considerations in both states. The second theme underlying causes of past wars and crises is the constantly changing military equation, on both the conventional and nuclear sides. This has led to perceptions of vulnerability and opportunity that in turn have triggered actions and reactions. Both of these issues can be expected to continue to trigger crises and possibly wars over the study timeframe (through 2015).

In addition to recurring causes of wars and crises, other patterns arise when examining past crises between India and Pakistan. Over several wars and crises, two patterns of escalation were repeated and can be expected to be factors in future crises. The first involved

one or both sides moving ground forces to areas near the border where the other has geographic vulnerabilities. The moves were, in most cases, defensive, but perceived as just the opposite and helped to escalate the crises. Second, in most cases one or both sides – more often Pakistan than India – tried to bring in outside powers in an attempt to change the balance of forces and prevail in the confrontation. This will also likely be repeated in the future, either for purposes of deterrence, escalation, or de-escalation.

The wars and crises between Pakistan and India until the run-up to the 1990 conflict over Kashmir all had some effect on the issue of nuclear weapons. Each war and crisis led to consideration and reconsideration of the nuclear option, or to exercising it openly, in New Delhi and Islamabad. The 1990 crisis may have been the first actual crisis in which nuclear weapons played a role, either through both sides actually weaponizing their latent nuclear capability during the crisis or through Pakistani's signaling of its intent to use nuclear weapons under certain circumstances. While nuclear use was not as likely as some journalistic accounts have claimed, the possibility for eventual escalation to the nuclear level was clear to both sides and to the United States. Similarly in Kargil in 1999, direct threats of nuclear use were not apparent, but the possibility for escalation to the nuclear level was present. Moreover, Pakistan's possession of an overt nuclear capability may have both emboldened Islamabad to undertake the operation to begin with and deterred India from escalating early in the conflict.

Future Crises and Crisis Stability

Taking into consideration the possible future force structures and the deterrence and other

failures evident in past wars and crises between India and Pakistan, it is possible to project future crisis scenarios. In these scenarios, we can identify the potential triggers for escalation to potential nuclear weapons use. This in turn can serve as a useful input to designing stabilizing measures. While the types of future crises that could occur are almost limitless, three scenarios are expanded upon that both are within the realm of the plausible over the next five to fifteen years and encapsulate some of the most destabilizing elements of each alternative doctrine and force structure that could push either side to escalate to nuclear use.

Scenario 1

The first scenario centers on yet another clash over Kashmir when both sides have low nuclear postures. Such a scenario could occur because the Pakistani leadership over time believes that the 1999 Kargil incursion was not such a serious setback and, in fact, provided a useful lesson in the utility of nuclear weapons. Specifically, Pakistani leaders believe that they can engage India in a ramped-up low-intensity conflict in Kashmir under the umbrella of their nuclear capabilities, and New Delhi will be deterred from escalating with its conventional superiority. If indeed India were unable to push out a renewed, Kargil-like incursion using the same methods it used in 1999, it would be faced with an acute policy dilemma. It would either have to escalate the war or capitulate to Pakistan or negotiate on Islamabad's terms, which would be equally unacceptable. India's options would be limited, and each of the two major ones holds risks for eventual escalation to the nuclear level. First, Indian ground and air forces could be allowed to cross the line of control with more relaxed rules of

engagement. Second, India could escalate horizontally by mobilizing and moving armored forces forward in the Rajasthan Desert near Lahore, threatening Pakistan at a vulnerable point, similar to the wars and crises of 1971, 1987, and 1990.

Six escalation problems present themselves in this scenario, assuming the low force postures and associated doctrines. First is the problem that Pakistan may initially believe that nuclear deterrence will work as a shield under which it can conduct low-intensity operations that would force India to come to terms over Kashmir. Second is the uncertainty on the part of India as to what constitutes a Pakistani red line in terms of Indian use of conventional force to respond to incursions in Kashmir. Third, the small size of Pakistan's force puts Islamabad in a "use or lose" situation almost regardless of India's actions if Pakistan believes the worst about New Delhi's intentions and capabilities. Fourth, India's conventional escalation options may not in and of themselves be sufficient to threaten Pakistan's national survival and trigger a nuclear response, but they may incrementally threaten the survivability of Pakistan's small nuclear force and its command and control structure. Fifth, even if Pakistan were to choose a demonstration use of its nuclear capability, India would face both political and military pressure to respond with nuclear weapons, particularly considering the small size of its own force and the potential vulnerability of its civilian-dominated command and control system. Finally, of the three options available to Islamabad, its limited force size and the history of ineffective international intervention on its side point toward an all-out use of its nuclear capability.

Scenario 2

The second scenario is one in which field training exercises involving both conventional and nuclear forces spiral into a crisis and introduce the risk of nuclear escalation. The timeframe for this scenario is 2010 and each side has continued the development of its nuclear doctrine and force postures to the point where they approximate the medium option. As each side modernizes and expands its force structure to the medium option outlined above, they realize the need for expanding the level and sophistication of command post and field training exercises to improve joint operations on the conventional and nuclear levels. In something of a repeat of the Brasstacks exercise series in 1986-87, the Indian leadership holds a series of exercises for both its conventional and nuclear forces near the Chinese and Pakistani borders. Given Islamabad's uncertainty about India's capabilities and worry about its intentions, the exercise proves particularly disturbing. In response, Pakistan forward deploys its conventional forces and its short-range, nuclear-capable ballistic missiles. As in 1987, attempts at communication to lower tensions fail to reassure either side.

The elements of potential escalation in this scenario derive in part from the relative newness of the larger and more ready force structures assumed in the medium posture. Just as the Brasstacks exercise was a first attempt by India to test new theories and operational doctrines for conventional forces, the exercises in this scenario are the first, or among the first, of ready nuclear forces. In addition, in the medium force posture, Pakistan will begin to have a large enough force to begin at least thinking about options for tactical use and warfighting with its nuclear weapons. This, combined with the forward deployment of con-

ventional forces of each side to the border, raises worries about tactical use opening corridors for deep conventional attacks. Even if one assumes that neither side was at least initially interested in conducting a nuclear or conventional first strike, force structures, doctrines, and ongoing geographic vulnerabilities create pressures to escalate. Finally, India's and Pakistan's ability to manage such a crisis and eventually de-escalate remain suspect for the following reasons: 1) absent significant improvements in general relations, communications during such a crisis will remain inadequate; 2) intelligence shortfalls will likely remain, leading to worst-case assumptions; and 3) inability to differentiate between a conventional attack and a nuclear one at the border could lead to escalatory moves.

Scenario 3

The third scenario is set in approximately 2015 when both Pakistan and India are on the verge of obtaining the high-posture option in their respective nuclear force structures. The scenario is based on the sudden opening of a strategic capabilities gap between the two, fueling instability and heightening the potential for crisis. Specifically, India purchases a conventional submarine with submarine-launched ballistic missiles from Russia, with an option for future purchases. This sends shock waves through Pakistan, which fears that India would use such a system to achieve first strike and escalation dominance over Pakistan. Fearing that once the submarine is operational, the gap in capabilities would become permanent, Pakistan considers responses that could be highly destabilizing and lead to the use of nuclear weapons. These options include purchasing countervailing capabilities from China and/or North Korea, striking again in Kashmir

before the capabilities gap is permanent, and conducting a conventional or nuclear pre-emptive strike on the submarine before it achieves full operational capability.

The potential for escalation to the nuclear level in this scenario has less to do with the actual force structures in place at the time it takes place (assuming medium moving to high postures for both India and Pakistan) than the fact that the levels of capability are changing rapidly and unequally. Because of the belief by one side or the other (depending on who acquires a significant new capability first) that it has been trumped strategically, it may be willing to take high-risk actions in an attempt to recover. In this scenario this may involve attacks that could invite nuclear retaliation or begin a conflict spiral that could end in a nuclear exchange. This proclivity for risk taking is particularly true for Pakistan if India continues to pull away from Pakistan in both conventional and nuclear capability over the next decade and longer. It should be noted that the assured second-strike capability that is part of an SLBM force is stabilizing theoretically in terms of deterrence, but submarine-launched capabilities raise other possibilities for accident and incident. Sea-based assets raise new and different command and control issues, particularly if India wishes to keep tight civilian control over its nuclear assets. Similarly, potential accidents at sea create different opportunities for misunderstanding and possible miscalculation, particularly if Pakistan attempts to begin regular surveillance of an Indian SLBM capability.

In some ways, these three scenarios outline the worst-case combinations of crises and future force postures. However, they are designed to draw out the most troubling instabilities in those combinations in order to

provide an analytical framework for considering stabilizing measures. From a U.S. policy perspective, the issue is not to attempt to get India or Pakistan to adopt one or other force posture. Rather, U.S. policy should focus on making sure that regardless of the force posture and doctrines that India and Pakistan adopt, chances of nuclear use are as low as possible.

Conclusions and Recommendations

The United States has a vital interest in keeping nuclear weapons from being detonated, either accidentally or intentionally, in South Asia. It also has a vital interest in preventing further proliferation of nuclear capabilities around the world – to states and non-state actors alike. The latter concern has only escalated in the aftermath of the September 11, 2001, terrorist attacks on the United States. India and Pakistan have been a potential source of nuclear proliferation since they first acquired nuclear weapons technologies, but their recent change to overt nuclear weapons states now means that the issue of further horizontal proliferation can be addressed openly for the first time. These two vital U.S. interests – keeping nuclear weapons from being used and continuing to staunch their further horizontal proliferation – are not incompatible. Pursuing improved safety, security, and crisis stability in South Asia need not undermine U.S. global nonproliferation goals. Therefore the United States should craft new policies designed to enhance stability, particularly crisis stability, in the region and work to advance those policies in a systematic manner. Specific policy recommendations are tailored to the scenarios for purposes of analysis, but they should obviously be adjusted according to what comes to pass on the ground in terms of development of actual force structures and doctrines.

- *Kashmir and low-level force postures.* To address the potential escalation issues when both sides have low level force postures, the United States should undertake the following policy initiatives. First, it should begin a series of separate bilateral political-military dialogues with each country covering some key issue areas. With Pakistan, these areas should include debunking myths about the outcome of the Kargil conflict; adamant refusal to support any further Kargil-like attempts; regular discussion of the Pakistani-Indian conventional military balance; command and control (including safety and security issues); reassurance on the survivability of Pakistan's nuclear arsenal; and specific implications and analysis of the risks of nuclear weapons use. After the September 11 bombings, the United States has already begun a limited dialogue with Pakistan on the safety and security of its nuclear arsenal, but that dialogue should be expanded. With India, the dialogue should include ongoing discussion of the uncertainty of Pakistani red lines in terms of nuclear weapons use; the broader strategic cooperation possibilities with the United States; and the specific implications and risks for India of nuclear use against Pakistan. In addition, the United States should engage in separate, bilateral simulations and exercises of political-military crises designed to highlight escalation issues. With Pakistan, the United States should engage in regular, joint defense assessments and provide technical assistance to bolster nuclear command and control capabilities as long as they are consistent with safety and security goals. The United States should also review and deepen its understanding of

Pakistan's military through renewed and increased funding of the International Military Education and Training (IMET) program and other exchanges. With India, the United States should engage in discussion and technology transfer to improve Indian ability to detect and analyze weapons of mass destruction use. Finally, despite possible resistance on the part of India, the United States should increase its diplomatic involvement in pursuing a peaceful solution to the issue of Kashmir.

- *Nuclear exercises and medium force postures.* In addition to the regular, separate political-military dialogues suggested above, the United States should promote regular, bilateral discussions among the protagonists over their specific concerns about exercises, either conventional or nuclear. Working with both India and Pakistan, the United States should help the two sides craft enhanced exercise notifications and information exchanges on exercises. It should also offer to demonstrate U.S. monitoring technologies, including the use of Open Skies aircraft, for exercises with the possibility of follow-on sales of certain items being open for discussion. In addition, the United States should broach with both sides the possible remote monitoring of nuclear weapons sites and offer to sell the technology that would make such monitoring possible. Finally, to ensure follow-up and ongoing implementation (a chronic problem with confidence-building measures in the region), the United States should push for, and offer to help fund, the establishment of a permanent, joint risk-reduction center.
- *Strategic surprise and high force postures.* Should India and Pakistan ever reach the

point where they are approaching high force postures as outlined above, then it is to be hoped that the United States is already well engaged with each side about avoiding destabilizing changes in their force postures and doctrines. In other words, the recommendations for this scenario are similar to those above, with the added recommendation that the United States offer to provide strategic early warning of major changes in the military balance – either conventional or nuclear – in order to minimize the destabilizing reactions that strategic surprise can produce. Finally, if India and Pakistan eventually construct larger force postures, it will be time for them to engage in regular strategic discussion about these arsenals, their doctrines, and ways to ensure that stability is enhanced, much like the United States and the Soviet Union eventually got around to after years of competition without conversation.

- *Implementation strategy.* Many of the recommendations above center on dialogue and risk reduction measures that have either been proposed but never adopted or have been formally adopted but have failed in their implementation. Talk is cheap and confidence-building measures are more often than not used as confidence-busting measures on the subcontinent. Therefore how the United States goes about pursuing these various initiatives is critical to their chances for success. Five specific issues have to be addressed in implementing such a strategy to improve chances for success. First, despite the urgency of the issue of nuclear crisis stability, the United States is going to have to move ahead slowly, building a consensus within the U.S. inter-

agency community, with Congress, with key international partners, and with India and Pakistan on how to address the question. Such a consensus may be easier in some ways after the events of September 11 because of the national and international focus on the region. However, in other ways it may become more difficult as issues such as nuclear stability are, rightly, subordinated to the more urgent task of eradicating the terrorist groups responsible for the attacks on the United States. Second, the United States must tailor its approaches to India and Pakistan and recognize that because of history, geography, political structure, and doctrine and force structure issues each country must be engaged differently. Third, the United States must work to create and sustain political, military, and economic leverage on these issues with each country. Fourth, the U.S. interagency community must be organized around a new comprehensive plan for engagement with these two countries. Finally, the executive branch must construct a public diplomacy strategy that will help build broad support for its new policies in Congress and with key international partners.

Nuclear weapons are not going to disappear from the subcontinent any time soon. India, Pakistan, China, the United States, and many other states will have to adjust to this reality and adapt their national security policies to it. For the United States this means focusing on what it can do, given this situation, to best advance its national security interests. Such a focus requires a re-balancing of priorities to favor enhancing crisis stability over global nonproliferation. Actively pursuing policies to enhance crisis stability in the region will

require a sustained and greatly deepened engagement with both India and Pakistan on a range of issues. It should be remembered, however, that despite a willingness, or even an eagerness, on the part of the United States to re-engage with these two countries and to offer all of the assistance it can to enhance stability on the subcontinent, ultimately it is up to Pakistan and India to establish a *modus vivendi* that lowers the chances for a nuclear confrontation. The United States, as the first nuclear power, and as the world's sole superpower, however, has both the interest and responsibility to do all that it can to assist them in reaching this goal.

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Nuclear Stability in South Asia

The Tests & Their Aftermath

THE SEPTEMBER 11 TERRORIST ATTACKS on the United States and the subsequent war in Afghanistan have focused world attention on South Asia. These events represent only the latest in a series of crises in that region of the world, and Washington, and much of the rest of the international community, tend only to pay attention to it when explosions occur. This tendency is unfortunate because it means that policies are rarely comprehensive or long lasting. In the wake of this latest crisis, Washington has been admonished not to repeat the mistakes of the past by leaving the region to its own devices once the smoke has cleared. This is sound advice, but it begs the question of what any long-term engagement strategy should seek to accomplish. It seems clear that one objective will be rooting out what remains of the al-Qaeda terrorist network in the region and ensuring that such a group can never use the region again as a base of operations. Another objective, however, should be improving the nuclear stability of the region – that is, ensuring that states or non-state actors in this newest of openly declared nuclear hot spots do not use nuclear weapons. Regardless of the outcome of the war on terrorist groups and their supporters in the region, the fact that two states with a history of wars and crises possess overt and evolving nuclear arsenals should be a cause for U.S. concern.

The situation in Pakistan and between India and Pakistan in the aftermath of September 11 has only heightened the need for careful study of and changes to U.S. and international policy with regard to nuclear stability on the subcontinent. Two examples in the aftermath of September 11 serve to illustrate this point. First, the United States and other states became more concerned about the security of Pakistan's nuclear weapons as fighting began in Afghanistan and opposition to Pakistani President Musharraf's decision to support the United States began to mount. Generalized worries about Pakistan's weapons falling into the hands of extremists or terrorist groups existed before September 11, but the situation in Afghanistan heightened the perceived, and possibly the actual, risk. In October, the Pakistani government arrested two of its nuclear scientists and questioned them regarding contacts they had with Osama bin Laden's al-Qaeda network. The fear was that they might have passed on nuclear weapons secrets, technology, or material to terrorist groups.¹ A retired Pakistani naval officer was also investigated for having possibly assisted Osama bin Laden and his al-Qaeda network in obtaining nuclear technology.² In a related worry, the Pakistani intelligence services' ties to al-Qaeda was highlighted, with the added concern that elements of the two organizations might have plotted to gain control of some of Pakistan's nuclear weapons.³ Second, as the United States initiated its bombing campaign against Afghanistan under the rubric of a war on terrorism, new attacks took place in Indian-controlled Kashmir. India, believing that Pakistan has long supported such attacks and was encouraging these to occur as a way of defusing internal tension over the situation in Afghanistan, threatened to retaliate with con-

ventional forces across the line of control into Pakistan against terrorist training camps. Pakistan immediately responded by saying that it would defend its territory, raising the possibility of war and escalation between the two nuclear-armed powers.⁴

Seeing the issue of nuclear stability only through the lens of the latest crisis, however, risks the development of overly narrow policy prescriptions that will not help to ameliorate the problem. The problem is not merely that the region is prone to crises or that any political-military crisis carries with it the potential for escalation to the use of nuclear weapons. It is that the types of crises endemic to the region interact with the ongoing developments in nuclear doctrine and force structure by both Pakistan and India to create a range of possible situations in which nuclear weapons may be used. To address that full range of interactive situations, it is necessary to have a better understanding of exactly how crisis scenarios interact with nuclear doctrine and force structure decisions that are being made, and will continue to be made, in both Islamabad and New Delhi.

This study seeks to do just that. It provides an analytic framework for reviewing and developing policies regarding nuclear stability on the subcontinent. It develops proposals for specific, prioritized stability measures that most directly ameliorate the most likely problems of nuclear stability between India and Pakistan in times of crisis. The prioritization of these measures is critical because getting the two states to adopt any stability measures, whether they are unilateral, reciprocal gestures, confidence-building measures, or operational or structural arms limitations will be very difficult. The goal is for the United States to induce India and Pakistan to adopt

these stabilizing measures, or to eschew certain destabilizing moves, in order to reduce the chances for a nuclear exchange on the subcontinent.

The United States has a vital interest, one that could directly affect the security of the U.S., in seeing that crises and conflicts in the region do not escalate to the nuclear level. Washington should therefore develop policies that are designed to improve nuclear stability on the subcontinent and integrate them with policies that it has for India, Pakistan, and Asia as a whole. The Clinton administration was reluctant to pursue stability measures because it was believed that they clashed with nonproliferation goals. The Bush administration, when it came into office, signaled that it was reconsidering that stance as part of its overall review of policies toward India, Pakistan, and the region. That review obviously was overtaken by events in September 2001. As the Bush administration now seeks to put in place its new, post-September 11, policy for the region, it needs to put the issue of nuclear stability at the top of its list along with the issue of how to ensure that terrorism against the United States no longer emanates from this part of the world.

The study seeks to provide the analytical framework and policy recommendations necessary to address nuclear stability in a sound manner. It is based on three key assumptions. The first is that both India and Pakistan will continue to develop nuclear weapons and will likely deploy them. The second is that arms control measures sought by the Clinton administration, such as Indian and Pakistani adherence to the Comprehensive Test Ban Treaty (CTBT), addressed only part of the problem and were actually peripheral to questions of stability in crises. The third is

that, despite recent efforts by the two states to address bilateral issues and even despite increased U.S. engagement in the region since September 11, political-military crises between India and Pakistan will continue and have the potential to spiral into a nuclear exchange.

This study will examine the overall goals related to nuclear weapons in South Asia sought by Washington and the international community from 1998 through 2000, and the balance between concerns of nonproliferation and those of crisis stability. Based on this assessment, the study will develop a new analytical framework to guide the reshaping of policies and specific recommendations will be offered for consideration by India and Pakistan, the international community, and particularly by Washington.

Recommendations for Washington will be put into the context of broader relations and interests that the United States has with each country bilaterally and in the region more generally. Obviously, the events of September 11 and after will have a significant effect on U.S. policy priorities and interests in the region, given Washington's renewed focus on Afghanistan, Pakistan, and the al-Qaeda terrorist network operating out of Afghanistan. The analysis contained in this study and the recommendations that result from it take these events into account to the degree possible considering the fluid nature of the situation in South Asia. Regardless of some of the tactical changes that will take place on the ground in the region over the next several years, certain fundamental realities about the nuclear forces, doctrines, and history of conflict between India and Pakistan will drive the nuclear stability issue. Initial worries by the international community about nuclear safety and stability in the region, briefly outlined above, need to be grounded

in a firmer understanding of these realities in order to design relevant policies that have lasting impact. That firmer understanding is what this study seeks to provide.

The first chapter of the study briefly reviews the events surrounding the 1998 nuclear tests carried out by India and Pakistan and the U.S. and international reaction to those tests. It outlines the U.S. goals toward the two states after the tests under the Clinton administration and assesses whether any of these goals were met. Finally, it outlines the concerns that nonproliferation advocates had with pursuing stability measures and makes the case that such concerns were overwrought and detracted from the equally important goal of improving nuclear stability in South Asia.

Chapter 2 of the study provides a basis for the analysis by detailing the current state of India's and Pakistan's nuclear doctrines and force structures. It describes the strategic, cultural, political, economic, and technological drivers in their current and future development. Building on this base, three alternative doctrines and force structures are posited for each state through 2015. These notional doctrines and corresponding force structures will provide some clues about potential critical issues of safety and stability that exist with various configurations. While not predictions of exactly what the situation will look like on the subcontinent over the next fourteen years, such projections provide a basis for examining how nuclear weapons might be considered and used in future crises.

Chapter 3 examines past wars and crises between Pakistan and India. It lays out the origins of the crises, how they escalated, and how they were resolved. It then enumerates how each side viewed the crisis and the outcome, and the lessons each learned from it to take

to the next crisis or set of interactions. From this examination, patterns of interaction, escalation, and de-escalation will be analyzed for use as a guide for how India and Pakistan may interact in future crises.

Chapter 4 integrates the findings of chapters 2 and 3, developing notional future crises using the postulated future doctrines and force structures. These notional crises are examined for the critical points at which nuclear safety, security, and control could break down or the greatest potential for planned or inadvertent escalation exist. Those instances will be examined with an eye to developing measures that might lower the chance that escalation to the nuclear level may occur.

Chapter 5 proposes appropriate stability measures to address the critical points of instability identified in chapter 4. Stability measures will not be limited to formal arms control-like measures or confidence-building measures but will span the range of unilateral changes in doctrine or force structure, to formal agreements, to improvements in intelligence analysis and decision making. In this chapter, we will select the most important from among the measures developed and put them into the form of specific policy recommendations for Washington to pursue both with the international community and with New Delhi and Islamabad. The recommendations will be incorporated into broader strategies for Washington's engagement with each state and for the region after September 11, taking into account other U.S. interests and goals. These policy recommendations for stability measures will be developed with an eye to regional needs, history, and, most importantly, to the future, to where India and Pakistan are going in developing their nuclear arsenals and doctrines and where relations are likely to go with these two

countries. That way, policy recommendations will target the realm of the probable rather than the fanciful.

The Nuclear Tests and their Aftermath

On May 11, 1998, India shocked the world by conducting three nuclear tests, one of which it claimed was a thermonuclear device. India then went on to conduct two more tests on May 13, 1998. Both sets of tests caught the world, including the U.S. intelligence and policy communities, by surprise. The ability of New Delhi to prepare for the tests and have them occur without being detected was important because of the pressure that would have been brought to bear by the United States and others if they had suspected what the Indian government was planning for such tests. In fact, in December 1995 the United States detected Indian preparations for a nuclear test and warned the Congress Party-led Indian government against it, leading to their cancellation. Then in 1996, Prime Minister Vajpayee, who had been head of a coalition government for less than two weeks, authorized tests and then retracted the order because the government fell. However, the 1995 incident was useful in showing New Delhi the kind of pressure it could expect from Washington if preparations for testing were detected. It also provided New Delhi with useful information on the capabilities of U.S. national intelligence-gathering systems that enabled India to conceal its test preparations in 1998. After the tests, the Indian government declared that India was a nuclear-weapons state, leaving none of the ambiguity that existed after India's 1974 peaceful nuclear explosion.⁵

Despite significant international pressure in the form of both carrots and sticks, particularly from the United States, Pakistan

responded to the India actions with nuclear tests of its own. Pakistan conducted five tests on May 28, 1998, and one more on May 30, 1998, showing that it could match its traditional rival, the final test being a counterpart to India's 1974 "peaceful nuclear explosion." Like India, Pakistan wasted no time in declaring that it was a nuclear-weapons state, declaring that it had the capability to fit nuclear warheads to missiles that would be able to strike targets across "most of north and central India."⁶

The combination of the tests and the subsequent declarations that each state would proceed to develop nuclear weapons arsenals re-ignited the interest of the international community in the region and in the long-standing Indian-Pakistani dispute over Kashmir. The international community's concerns after the tests were twofold. First, there were worries that the first nuclear tests by a non-nuclear power since 1974 and the first declaration of a new nuclear state since 1964 would break the taboo on new, overt nuclear weapons states and undermine the international nonproliferation regime. Second, the international community worried about not only the existence of these weapons but about the heightened potential for their use in what was seen as a relatively unstable region with a history of conflict and unresolved territorial questions. This concern about the use of nuclear weapons, or crisis stability for short, was heightened in the spring of 1999 with the outbreak of fighting in the Kargil sector of Kashmir.

The international community's responses to these two crises – the testing of nuclear weapons and the fighting in Kargil – echoed previous involvement in the affairs of the region: only crises seemed to provoke sustained interest and attention. Neither the fact that the political and military situation in Kashmir was

unstable and unresolved nor the fact that there were nuclear weapons in the hands of both India and Pakistan was new. The dispute over Kashmir is as old as the creation of independent India and Pakistan in 1947. In terms of a nuclear confrontation, India has been presumed to possess at least a rudimentary nuclear weapons capability since 1974. Indeed, its nuclear development program, with at least some weapons potential, was begun almost simultaneously with the founding of the Indian state.⁷ Pakistan was openly acknowledged to have nuclear weapons by the United States in October 1990, when the U.S. president could no longer certify that Pakistan did not possess them, thereby triggering sanctions under U.S. legislation known as the Pressler Amendment.⁸ In fact, it is likely that Pakistan had at least a limited nuclear weapons capability several years before that, but the U.S. government, because of the Soviet occupation of Afghanistan and Islamabad's central role in helping the United States counter it, chose to downplay its knowledge of this fact.⁹

Of the two areas of concern – nonproliferation and crisis stability – the former took precedence in the responses to the testing and follow-on declarations of nuclear-weapons-state status by India and Pakistan. The reasons for this emphasis were threefold. First, the United States led the response to the nuclear tests, and its goal was to cap and eventually roll back the development, thereby keeping the nuclear nonproliferation regime intact. During the 1990s, the United States was involved in a multi-faceted push to strengthen the global nuclear nonproliferation regime. The tests in 1998 threatened to unravel those efforts, and Washington hoped at the outset that a hard-line response would force New Delhi and Islamabad to cap, reduce, and possibly eliminate any

overt nuclear capabilities. Compounding this policy preference was a series of international and domestic laws and obligations forcing fairly swift and severe sanctions to be imposed and limiting maneuver room on the side of addressing the crisis stability issue.

Second, the United States and other leading states believed that if they focused on the crisis stability aspects of the problem on the subcontinent, they would be tacitly acquiescing to India and Pakistan becoming declared nuclear-weapons states. Finally, those who had followed South Asian issues closely understood that the underlying tensions between India and Pakistan were deep and broad and would not be resolved easily or swiftly. The issue of nuclear proliferation was seen as a more discrete problem that could be handled relatively quickly and neatly, unlike the lingering problems of Kashmir and other historic issues between the two states.

The International Response to the Tests

Led by the United States and other keepers of the international nuclear nonproliferation regime, the international community reacted to the May 1998 tests swiftly and harshly but with little apparent effect on either India or Pakistan. The most concrete response was United Nations Security Council (UNSC) resolution 1172, passed on June 6, 1998.¹⁰ This resolution built on principles coming out of an unprecedented meeting of the foreign ministers of the five permanent members of the Security Council just two days earlier.¹¹ The UNSC resolution condemned the tests by both India and Pakistan, called on them to halt their nuclear weapons development programs, and urged them to adhere to international agreements, such as the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), that

would put a legally binding cap on, if not eliminate, any nascent weapons capabilities. In addition, the resolution called on India and Pakistan to exercise restraint in relations with one another and reinvigorate their dialogue to resolve outstanding issues, including Kashmir. While the resolution covered both nonproliferation and stability, the stronger emphasis was on nonproliferation, and more concrete steps were urged on that front.

Following up on the action of the Security Council, the foreign ministers of the G-8 nations gathered in London on June 11-12, 1998, and invited a number of other interested states to the meeting to discuss the nuclear tests and to take further actions to address what was seen as a serious threat to both the global nonproliferation regime and stability in South Asia. The additional states included China, Argentina, Brazil, South Africa, Ukraine, and the Philippines. China was there because of its Perm-5 status and its obvious interest in a region on its border, and the Philippines was representing the Association of Southeast Asian Nations. The other states were present because they had all voluntarily foresworn nuclear weapons capability even though they either had nuclear weapons or had the capability to produce them. Out of this meeting, the Japanese foreign minister proposed a task force of senior officials, led by Japan, to follow up on the issue. This Senior Officials Task Force (SOTF) met three times, most recently on February 11, 1999, when the Republic of Korea joined the group. The role of the SOTF has been to coordinate the international community's expressions of concern over the nuclear issue in South Asia.

In addition to multilateral undertakings, most countries (152 by one count) voiced opposition to the nuclear tests. A number of the

states supported their statements of condemnation with unilateral sanctions of varying size and scope. Interestingly, the UNSC resolution did not contain provisions for sanctions nor was the resolution adopted under chapter 7 of the United Nations charter, which would have deemed the events a threat to international peace and security. The two most important countries to levy sanctions were Japan and the United States. In the case of Japan, the imposition of sanctions against India and Pakistan was significant not only because of the moral status claimed by Tokyo as a non-nuclear weapons state and a nuclear weapons victim, but also because of the size of its trade and overseas development aid programs. The United States' action was significant because of its superpower status and, for Pakistan in particular, the ability of Washington to cut off key loans from international financial institutions.

The U.S. Policy Response and its Evolution – 1998-2001

The most comprehensive statement of U.S. policy goals during the Clinton administration vis-à-vis India and Pakistan in the nuclear realm and the rationale underlying the U.S. approach to achieving those goals can be found in a speech made by Deputy Secretary of State Strobe Talbott at the Brookings Institution on November 12, 1998. In that speech, Talbott noted that the U.S. response had been couched in an international context, and he cited the UN and G-8 statements as well as other multilateral condemnations of the tests. He underlined the two principles that had so far guided U.S. efforts in response to the tests. First, the United States wanted universal adherence to the NPT. In other words, Washington was not going to accept, either legally or implicitly, that India or Pakistan was a nuclear-

weapons state under the treaty and entitled to join that very elite club of five nations. The second principle he cited was the practice of diplomacy as the art of the possible. This meant that the United States recognized that for India and Pakistan to adhere to the NPT as non-nuclear weapons states was a long-term goal and that the United States should attempt to induce them to take five particular steps that would "...help avoid a destabilizing nuclear and missile competition and more generally reduce tensions on the subcontinent and bolster our global non-proliferation goals."¹²

Those five near-term steps formed the basis for ongoing discussions with India and Pakistan throughout the remainder of the Clinton administration. The first step was to get both India and Pakistan to sign and ratify the Comprehensive Test Ban Treaty. The second was to have both nations undertake a moratorium on the production of fissile material – both plutonium and highly enriched uranium – pending the conclusion of a global treaty being negotiated in the Conference on Disarmament in Geneva that would cut off production of such material on a worldwide basis. The third step was to limit the development and deployment of missiles and aircraft capable of carrying weapons of mass destruction (WMD). The fourth was for both India and Pakistan to tighten their export controls on materials and technologies that could be used to manufacture nuclear weapons or other weapons of mass destruction or missile delivery systems. The fifth step was a call for direct, high-level, and frequent dialogue between India and Pakistan over core issues in their relationship, including Kashmir, confidence-building measures, and better communications in general.¹³

U.S. policy related to nuclear issues and stability on the subcontinent, particularly the

pursuit of these five interim steps, was played out from 1998 to 2000 in a set of bilateral dialogues between the United States and each country at a very senior level, and with India in the context of reciprocal visits by the heads of state. Relations with Pakistan, and the discussion of nuclear issues, were also wrapped up in the politics of visits as President Clinton and the administration debated, and ultimately decided, to have a brief meeting with Pakistan's chief executive General Pervez Musharraf when the president traveled to South Asia in 2000.

During the Clinton administration, Strobe Talbott led the nuclear dialogues with India and Pakistan. He met ten times with his Indian counterpart, External Affairs Minister Jaswant Singh, and nine times with Pakistani Foreign Secretaries Shamshad Ahmad and Abdul Sattar. These dialogues primarily covered the five U.S. near-term objectives described above and were included in discussions of broader bilateral relationships. Despite the good personal relationships that were formed in these meetings and the breadth of the discussions, the results in terms of the United States' achieving its near-term objectives were limited. Similarly, the reciprocal visits of the U.S. president and Indian prime minister produced a tremendous amount of general goodwill but little progress on the set of nuclear issues.

In addition to taking the lead rhetorically to condemn the nuclear tests and setting out interim steps it wanted India and Pakistan to take on the way to the longer-term goals outlined in the UNSC resolution, the United States imposed relatively stiff economic sanctions on both countries. The sanctions were required under legislation popularly known as the Glenn Amendment. This amendment to

the U.S. Arms Export Control Act requires that if the president determines that a non-nuclear weapons state, as defined by the NPT, detonates a nuclear explosive device, certain sanctions apply.¹⁴ At the time, the administration stated that the sanctions had the following objectives: to send a strong message to would-be nuclear testers; to have maximum influence on Indian and Pakistani behavior; to target the governments, rather than the people; and to minimize the damage to other U.S. interests.¹⁵

Almost immediately after the imposition of sanctions, the discussion and debate began in Washington over whether they were going to achieve their goals and whether and under what circumstances the United States should consider lifting them on either country. Since the tests, the debate over the easing of sanctions has reflected the broader issue within the U.S. policy community of how best to influence the behavior of India and Pakistan in the nuclear realm and how to balance that desire with the need to address global nonproliferation concerns. The debate has evolved considerably since 1998, when the rhetoric of “cap, roll-back, and eliminate” in terms of India’s and Pakistan’s nuclear capabilities dominated U.S. thinking and, particularly, what New Delhi and Islamabad believed they were hearing most loudly from Washington and the international community.

As noted above, the sanctions imposed on both India and Pakistan after the tests were required by law, and the Clinton administration had no choice but to impose them. Moreover, the leveling of sanctions supported its general philosophical approach to the issue. Deputy Secretary Talbott’s Brookings speech noted that the sanctions were designed to be a disincentive to other states who might be con-

templating a nuclear option and that they were also a show of support by the United States for states that had renounced a nuclear capability. The Glenn Amendment, however, was particularly rigid in that it did not allow for any waiver mechanism by the administration, a common characteristic of sanctions legislation and other congressionally mandated foreign affairs laws.

Specifically, the sanctions prohibited U.S. bilateral assistance in all areas, including military assistance. They also banned licensing of all items on the U.S. Munitions List and for certain dual-use items to a particular set of end users. It should be noted that many restrictions on military and dual-use sales had already been in place for India since the 1970s after it became clear that it had an active nuclear program. Probably most telling, the law required the United States to oppose any loan or financial or technical assistance from any international financial institution that did not support basic human needs. This last provision had some flexibility in that the United States could choose to abstain from voting rather than vote “no” on these international support programs. In fact, in December 1998, the United States did allow an International Monetary Fund (IMF) package to go through for Pakistan on a one-time basis. Most of the restrictions and sanctions enacted in 1998 had already been in place for Pakistan under the provisions of the Pressler Amendment, but some new prohibitions were applied under the Glenn Amendment. For India, most of the sanctions were new.¹⁶

While U.S. goals vis-à-vis India’s and Pakistan’s nuclear programs did not officially change over the last three years of the Clinton administration, the view on the utility of sanctions did evolve for a number of reasons. First,

it became clear relatively quickly that the sanctions were not going to be sufficient to coerce either India or Pakistan into giving up their newly acquired nuclear capabilities. In fact, the Clinton administration never believed that this would be the case and never used that argument in its rationale for applying sanctions. Second, other countries, even those with very strong nonproliferation credentials, began easing their own unilateral sanctions after a short period.¹⁷ Third, in internal debates within the administration, it was argued that the sanctions were counter-productive and limited India's and Pakistan's willingness to discuss the whole issue until the sanctions were eased or removed entirely. In support of this specific concern over the impact of sanctions on dialogue in South Asia, there was a more general belief that the executive branch should have flexibility to apply, waive, and if necessary lift sanctions as a tool of foreign policy.

The result of this changing view during the Clinton administration was a gradual easing of the sanctions against both states. On October 25, 1999, an amendment to the defense authorization bill provided the president with the authority to waive sanctions under the Glenn Amendment. The Clinton administration promptly exercised the new authority and waived a portion of the sanctions. On the next-to-last day Clinton's term, the administration waived sanctions again to allow a one-time sale of spare parts (with U.S. content) by the United Kingdom to India for British-manufactured *Sea King* helicopters.¹⁸

The Bush administration came into office promising to review sanctions policy globally and stated that it would seriously consider further reductions on sanctions, at least on India.¹⁹ Signaling a further shift, in May 2001 the Bush administration's nominee for assis-

tant secretary of state for South Asia, Christina B. Rocca, reportedly stated in her nomination hearing that she believed that sanctions against both India and Pakistan had outlived their utility and were an obstacle to engagement with the subcontinent.²⁰ In a visit to India in July 2001, the chairman of the U.S. Joint Chiefs of Staff, General Henry H. Shelton, hinted that sanctions on India might be removed soon.²¹ In August, Deputy Secretary of State Richard Armitage stated that the administration would begin working with Congress in fall 2001 to lift sanctions on India "...in order to clear the way for more military planning, joint operations and eventual sharing of weapons technology with New Delhi."²² Finally, in the aftermath of the terrorist attacks on the United States on September 11, 2001, and the U.S. need for greater cooperation from Pakistan and India in combating that threat, Washington lifted the sanctions it had imposed on both countries in May 1998.²³

Assessing International and U.S. Policy Since the Tests

Not surprisingly, after the long buildup in their nuclear programs and the tremendously positive public responses in each country to the tests, neither India nor Pakistan was in any hurry to comply with the demands of the UN Security Council. Security Council resolution 1172, so far, has been largely ignored. Neither country has halted its nuclear weapons development program, and neither has expressed any interest in adhering to the NPT as a non-nuclear weapons state. The latter move would have not only meant renouncing the capabilities proven by the May 1998 tests but also a reversal of a long-standing philosophical opposition to the structure of the treaty, which allows the five nuclear power states to retain

nuclear weapons while denying that possibility to all others. The two did reinvigorate dialogue with one another, including the meeting between heads of state in Lahore in February 1999. Of course, following closely on the heels of that meeting, they clashed in Kargil, which demonstrably proved a lack of restraint on the part of Pakistan. The July 2001 summit between Indian prime minister Vajpayee and Pakistani president and chief executive Musharraf was another attempt at restoring a dialogue, but the failure to issue a joint communiqué showed the depth of the problems between the two states and the limited maneuver room of their leaders.

The United States was not very successful in achieving either its long-term or short-term goals regarding the Indian and Pakistani nuclear programs. U.S. exhortations had no evident effect on Indian or Pakistani views on giving up nuclear capabilities and signing on to the NPT as non-nuclear weapons states. On the shorter-term goals outlined by Deputy Secretary Talbott, Washington made little progress as well. While it is impossible to prove that India or Pakistan might have taken further steps to weaponize and deploy their nuclear capabilities had Washington and others not pushed and prodded, it is possible to show that very little concrete has happened on the five short-term objectives. In fact, it is possible to show that some have been ignored and might have to be taken off the table in future talks because they are no longer relevant. To be fair, the reasons that Washington's policies have not succeeded are a mix of how they were carried out, the difficulty of the objectives sought given the domestic politics and foreign policies of both India and Pakistan, and intervening events that undermined Washington's goals. A brief review of the five short-term goals and

efforts to achieve them provides a useful picture of where policy thinking for the future must start as well as highlighting the difficulty that the Bush administration faces when discussing nuclear and stability issues on the subcontinent.

The Clinton administration's first goal, getting both India and Pakistan to sign and ratify the CTBT, was a tall order at best. Slight progress was made as both India and Pakistan, shortly after the May 1998 tests, declared unilateral moratoriums on further testing. Each has extended, and observed, those moratoriums while they continue to consider whether to sign on to the CTBT. Both Pakistan and India have expressed interest in eventually joining the CTBT, but India continues to have reservations about the treaty that are not necessarily related to whether Pakistan chooses to adhere to it.²⁴ The continuing moratoriums on testing, and expressions of interest, could be characterized as limited progress since India would not have even considered the treaty before its tests because it believed that the CTBT was part of the discriminatory practices of the world's nuclear- weapons states.

However, moving India and Pakistan from unilateral moratoriums to a legally binding halt is highly unlikely for a number of reasons. On the Indian side, some Indian scientists and analysts are not completely convinced that the series of tests conducted in May 1998 produced sufficient data to allow India to cease testing altogether, particularly if they believe that they will have more robust deterrence requirements in the future.²⁵ Specifically, some Indian analysts have argued that further testing may be needed on hydrogen bombs to address the Chinese threat.²⁶ The potential need for future testing has also been raised by analysts outside of India for the same reasons.²⁷ On the

Pakistani side, Islamabad benefits from having tested a highly enriched uranium weapon with a more proven design, which some analysts argue was provided directly by China. Regardless of the origins of either the weapon itself or its design, if Pakistan wishes to move on to more sophisticated plutonium-fired weapons, it may also have a requirement for further testing.²⁸

The Clinton administration's second goal, to get both states to enter into a moratorium on the production of fissile material pending the conclusion of a global treaty that would cut off such production on a worldwide basis, went nowhere. The problem with this goal was that Indian and Pakistani adherence would constitute a direct and complete cap on their nuclear forces and capabilities, an outcome that neither country is prepared to accept. Whereas testing moratoriums and even signing the CTBT would represent limitations on future nuclear capabilities, they would not necessarily be absolute limitations. Enough data may have been gathered in the May tests to suffice for a wide range of nuclear force structures and doctrines. Moreover, computer simulations and a range of other experiments and activities involving nuclear materials not prohibited by the treaty may also provide information that would enable India and Pakistan to move forward with their respective nuclear programs. The same cannot be said for a cutoff of fissile material production. Such a commitment would have capped the numerical size, and possibly also to some degree the structure, of each side's nuclear forces at a level corresponding to how much (of each type of) fissile material they currently had stockpiled. Given the still-evolving nature of each side's force structure and doctrines, neither New Delhi nor Islamabad has shown any serious interest in taking

such a step. Basically, neither side believes it has enough for its credible minimal deterrent, and Pakistan wants to produce some plutonium for more advanced weapons designs before agreeing to any cutoff of production. India has rhetorically supported a cutoff knowing that the negotiations will not get anywhere, and Pakistan's position is one that would take current stockpiles into account, a position that India opposes. Regardless, the negotiations for a global ban at the Conference on Disarmament have only just moved out of the "pre-negotiations" or mandate phase. It is unclear whether actual negotiations will begin any time soon or whether they will continue to be stymied by Russian and Chinese insistence on linkage to outer-space arms race talks – essentially part of their campaigns against U.S. missile defense efforts.²⁹

The third practical step urged by the United States during the Clinton administration was a limitation on the development and deployment of missiles and aircraft capable of carrying weapons of mass destruction. Essentially, the United States was looking to prevent an arms race from developing on the subcontinent. Washington was also seeking to keep the degree of weaponization and deployment to a minimum to ease concerns about command and control and safety of dispersed weapons. Exactly what types of limitations Washington was looking for has not been made public, but details were developed in the bilateral dialogues and included requests for moratoriums on missile tests and the non-mating of warheads with either missiles or aircraft along with a geographic separation of warheads from delivery systems.³⁰ Success in this step is easy to measure in some areas, less so in others. In terms of missile development, Washington's pleas appear to have had little to no impact.

Shortly after the tests, Indian officials began to make statements about efforts to weaponize their nuclear capability, including miniaturizing warheads to fit on the short-range *Prithvi* missile.³¹ Such statements may not necessarily reflect actual steps taken but rather lobbying on the part of advocates within India. However, other steps that India took clearly reflected an unwillingness to comply with U.S. requests for limiting weapons development. The ruling BJP revived the nuclear-capable *Agni-II* intermediate range missile program in 1998, and the *Agni-II* was tested for the first time on April 11, 1999, and again on January 17, 2001.³² Since the second test, Indian officials have said that the *Agni-II* will be inducted into the armed forces.³³ Officials also announced an intention to build and test a third and longer-range version of the missile, the *Agni-III*, as well as an intercontinental ballistic missile (ICBM) in early 2002.³⁴ In addition, India has continued purchases of advanced fighter aircraft from Russia and the development of its own fighter aircraft.

Pakistan has also failed to show any measurable restraint in the area of testing ballistic missiles. Three days after India tested its *Agni-II* in 1999, Pakistan responded with a test launch of its *Ghauri-II* (also known as the *Hatf-VI*) and followed one day later with a test of the *Shaheen-I*.³⁵ In late 2000, Pakistan began serial production of the *Shaheen-I*.³⁶ Following the January 2001 *Agni-II* test flight conducted by India, Pakistan responded by saying that it was ready to flight test its *Shaheen-II* and that both this missile and its earlier version were not only in “regular production” but had already been inducted into the army.³⁷ It is possible to argue that the pace of missile development would have been even faster had not the United States and world community made it clear that they wanted

to see restraint, but little evidence exists to support such a claim. In fact, it appears that the only constraints on missile and other delivery vehicle developments since 1998 were either technical or financial.

The fourth step that the Clinton administration requested of India and Pakistan, the tightening of export controls on materials and technologies that could be used to manufacture nuclear weapons or other weapons of mass destruction or missile delivery systems, has been the area where the most progress has apparently occurred. This is not surprising. It is one of two requests that can be undertaken without actually accepting any limitations on their own nuclear programs. While, as Neil Joeck points out, both New Delhi and Islamabad, having been targets of export control regimes, may be reluctant to set up such controls themselves, they also realize that it is a way to demonstrate a degree of responsibility at fairly little cost.³⁸ Both countries already had some export control mechanisms and guidelines in place, and new legislation is being considered to tighten controls further. Both New Delhi and Islamabad were receptive to discussions on these issues and have agreed to consider at least some of the suggestions and recommendations from Washington. In June 2001, Islamabad announced still more reforms and new laws designed to bring its export controls into alignment with Washington’s desires. Again, this type of request is easier because it focuses on the issue of further proliferation (something that neither India and Pakistan can say they support) rather than what George Perkovich terms “unproliferation” (giving up nuclear weapons and nuclear weapons production capability) or crisis stability.

The last near-term step requested by the Clinton administration, direct, high-level and

frequent dialogue between India and Pakistan, began promisingly with the meeting of the two heads of government in Lahore, Pakistan, in February 1999. The historic bus trip across the border by Indian Prime Minister Vajpayee and the statement issued by the two sides at Lahore seemed to have set the tone for serious discussions about a range of grievances.³⁹ This was important as it meant that tensions could possibly be reduced and chances of inadvertent escalation might be lowered as regular dialogue was initiated. This early optimism, however, was dashed by the Kargil conflict. Even after India succeeded in bringing the forces in the region to heel, New Delhi was not ready to begin a dialogue again swiftly because it suspected that Islamabad had been readying the operation at the same time it engaged in the Lahore meeting, which India saw as particularly duplicitous.⁴⁰ Domestic politics complicated renewed dialogue as India underwent yet another general election and Pakistan suffered through yet another military coup.

In 2001, some positive signs emerged. India agreed to engage in dialogue with the political groups in Kashmir (the All Parties Hurriat Conference) although it initially refused either to include or to talk simultaneously with the Pakistani government. New Delhi also engaged in several unilateral cease-fires in the first half of 2001 in Kashmir although, again, Pakistan was not directly involved. Finally, in mid-2001, New Delhi issued an invitation to Pakistan's chief executive, General Musharraf, for talks, and Pakistan accepted the invitation in late May.⁴¹ Having been eager to restart dialogue and having offered to meet the Indian government any time, anywhere, Musharraf could hardly turn down the invitation. Whether the July 2001 Agra summit will have marked the start of sustained and serious dialogue on the

contending issues that exist between the two states remains to be seen, but the results of the first meeting were not overly promising. On the one hand, the leaders met and apparently got along well. In addition, General Musharraf has issued an invitation for Vajpayee to make a reciprocal visit to Pakistan.⁴² On the other, the two sides failed to issue a joint communiqué, and it was clear that little progress was made on central issues such as Kashmir. The dynamics of the post-September 11 relationship have yet to really develop and doubtless will take some months, or more, to shake out.

Dialogue between India and Pakistan about their relationship has been taking place in a sporadic fashion for years on both the official and the non-official "track 2" levels. Its frequency, intensity, and level of success are driven primarily by the individual leaders involved and domestic politics in both states. The fact that both sides met in Lahore in 1999 and again in July 2001 is not in response solely to U.S. or international pressure. Even if international pressure played a part in pushing the two sides to meet, it cannot make the dialogues fruitful. Sanctions, promises of their being lifted, and external exhortations alone are not going to produce a stable and sustained dialogue that will lower the probability of conflict. Domestic politics and the realities on the ground in Kashmir, particularly the level of violence, will be the primary factors in determining whether the current dialogue is any more successful than the previous ones.

In sum, not many of either Washington's or the international community's goals have been achieved in South Asia since the May 1998 tests. This does not mean necessarily that the goals were wrong or that they should be discarded. It simply means that they should be re-evaluated and possibly re-ordered in accor-

dance with current realities in the region and recent experience along with the approaches that the international community, and Washington in particular, has been using to attempt to achieve them. The experience of the past three-plus years has shown that policies that are too tightly bound (or are perceived to be so in New Delhi and Islamabad) to a goal of “unproliferation” are doomed to failure. The fact that a nuclear-armed China continues to assist one side in the confrontation and belittle the other at regular intervals of course also weighs heavily against any unproliferation goals. At the same time, events over the past three-plus years have shown that general regional stability problems remain (i.e., Afghanistan, Kargil) and the possibility of the use of nuclear weapons in a crisis has not been abated by any of Washington’s or the international community’s policies. In fact, some of the policies designed to foster nuclear stability – exhortations to dialogue and promoting a freeze on nuclear weapons and missile development – have clearly failed. The bottom line is that unproliferation is a chimera and needs to be downgraded in priority relative to the goal of stability, particularly crisis stability, on the subcontinent.

Nonproliferation Concerns

While it is fairly easy to proclaim that unproliferation should be downgraded as an objective in South Asia because it is not achievable in the short to medium term, there are those who argue that such an approach is irresponsible.⁴³ It is important to understand the concerns of nonproliferation advocates and make sure that any shift in priorities and subsequently proposed measures do not damage U.S. interests in the area of nonproliferation. The primary concern of those who focus on the nonproliferation

goal is that other states will follow India and Pakistan and openly develop nuclear weapons, negating decades of diplomatic work that has helped keep the number of declared nuclear weapons states to five. For this reason, nonproliferation advocates argue that India and Pakistan should not be recognized as nuclear weapons states in legal terms (by inclusion as such in the NPT). In addition, they argue that policies by the international community should punish the two governments for their actions or at the very least should not reward their actions.

Again this focus is based on the concern by nonproliferation advocates that other states with the potential to develop nuclear weapons may see the Indian and Pakistani example and adjust their policies on weapons development. Exactly how those policies would be adjusted depends on the state in question. The states fall into two categories, and the concerns vary accordingly. The first category includes those states currently pursuing a nuclear weapons capability, including Iran, Iraq, and the Democratic Peoples Republic of Korea (DPRK). No policy makers or analysts believe that they will be dissuaded from their pursuit of nuclear weapons by international responses to India and Pakistan or by sanctions. Nor will the demonstration effect of India and Pakistan becoming overt nuclear weapons states necessarily accelerate their pursuit of these capabilities. Nonproliferation advocates, however, do worry about how closely these states are watching international reaction to adjust their own political and diplomatic tactics as they approach an overt nuclear capability. The concern is that countries such as these three, watching international reactions to India and Pakistan, would adjust their programs to minimize punishment and maximize rewards. The

other set of countries, those with a technological capability to become nuclear weapons states but that have either chosen not to do so or who have given up this capability (Japan falls into the former category and Ukraine into the latter) could feel betrayed if India and Pakistan were somehow rewarded for their actions. In fact, Clinton administration officials were very clear that they did not want to break faith with countries such as these who they felt were at the core of the global nonproliferation effort.⁴⁴ They felt that if the United States were seen as rewarding India and Pakistan after the tests, then these countries might either reconsider their decisions to forego nuclear weapons or, less dramatically, lessen their support for global nonproliferation regimes.

A related argument for holding the nonproliferation/unproliferation line and postponing any discussion of specific stability measures that could imply acceptance or formal recognition of nuclear weapons status was that it simply was not yet necessary. This “now is not the time” argument is a familiar one in diplomatic circles on a variety of issues, but it is important to consider it carefully in this case. Immediately following the tests, it was not clear that either India or Pakistan was actually going to weaponize its nuclear capabilities, mate warheads with delivery systems, or deploy nuclear forces with military units. Offering to discuss or provide assistance for permissive action links (PALs), command and control, or other issues related to making fielded nuclear forces safer in both peacetime and crisis could have been seen as not only acquiescing in but also actually encouraging the deployment of sophisticated nuclear weapons arsenals.

These arguments were the basis for decisions by the Clinton administration not to consider or pursue a variety of measures that

could have addressed issues of stability on the subcontinent. Not all are compelling, and some have lost some of their force three years after the tests. It is also becoming clear that the Bush administration does not hold these views and may view nuclear deterrence as stabilizing in certain circumstances.

Taking the concerns about proliferation in order, the first point to note is that the global nuclear nonproliferation regime is fairly robust. Given a prediction made by President John F. Kennedy in the 1963 that there would be twenty-five nuclear-weapons states within a decade, the current reality of five recognized, two overt, and one or two clandestine nuclear weapons states is a fairly good result.⁴⁵ The reasons for the success of the regime, and its likely continued success in the future, are twofold. First, a consensus exists among most states on restricting access to critical technologies and components, particularly fissionable material, necessary to construct nuclear weapons, and regimes have been established to formalize controls on transfers. Second, states choose to develop nuclear weapons for a variety of reasons. Scott D. Sagan offers three models: security based, domestic-politics based, and norms based.⁴⁶ For each of these models as to why states choose to “go nuclear,” a number of policy options exist to change the decision-making calculus. If the state has security concerns, security guarantees in the form of alliances with a nuclear-weapons state, negative security assurances, and confidence-building measures are possible alternative solutions. If a decision to go nuclear has domestic roots, changing the incentives of the various domestic coalitions for and against developing nuclear weapons is difficult but not impossible. Finally, if the norms-based model is the reason, then the continued existence and enhancement of non-

proliferation treaties and regimes as well as the international community's overall response to the South Asian tests should suffice to hold the line.

On the issue of the time not being right to address stability issues, it is true that more than three years after the tests it is still not clear exactly what the nuclear force structures of the two states will be. However, they have taken steps to continue nuclear weapons development and are either considering or are making decisions about command and control, deployment, mating of weapons, and delegation of release authority. If the United States were to wait still longer before engaging in discussions about these issues, all of the relevant decisions will have been made, and the United States will have exerted no influence on those decisions. As will be shown in this study, not every aspect of stability may have to be discussed or be the subject of assistance, whether technical or financial. Choosing carefully which areas of stability are the most useful on which to focus and how they are approached may help ameliorate concerns that such an approach could undermine global nonproliferation goals or regimes.

Finally, concerns are overblown that countries such as Iraq, Iran, and North Korea might glean tactics from India and Pakistan's dealings with the international community after the tests. The international community's reaction to a nuclear test by any of these other states will be very different from its reaction to India's or Pakistan's actions. This will be particularly true of the United States. For Washington, the simple reason is that neither New Delhi nor Islamabad threatens vital U.S. national security interests or those of its allies. Clearly, that is not the case with Baghdad, Tehran, or Pyongyang. While overt nuclear weapons capa-

bilities in South Asia are troubling, they do not have the immediate global implications for the spread of such capabilities to a region such as the Persian Gulf.

The question about whether the international community should continue to punish India and Pakistan through sanctions for the tests has undergone a substantial change since September 11, 2001. No consensus ever existed for formal multilateral sanctions through the United Nations or even regional organizations such as the European Union. The United States was beginning to loosen its own sanctions on both countries before September 11, and other leading nonproliferation advocates such as Japan have been considering doing so as well.⁴⁷ Once the need for substantial Pakistani cooperation in the war in Afghanistan became apparent, the Bush administration removed or waived almost all nuclear and democracy-related sanctions on Islamabad, and the corresponding nuclear-related sanctions on New Delhi.⁴⁸ Some restrictions, related to Pakistani importation of M-11 missiles from China, remain in place, but they could be waived in the future and in any case expire in November 2002.⁴⁹ The question therefore, at least for U.S. policy regarding nuclear stability, has changed from the question of punishment to one of inducement. The U.S. is already proposing an aid package for Pakistan as part of its program of stabilizing the regime there and rewarding it for cooperation in the war on terrorism.⁵⁰ Whether this greatly enhanced level of support can be leveraged to persuade Islamabad to adopt more stable and secure nuclear policies is unclear. More specific assistance, in the form of technical or financial measures to address specifically nuclear safety and stability, has yet to be formally proposed although some initial discussions on these issues took

place in October 2001, apparently without any results.⁵¹ Whether specific assistance can or should be provided depends on two sets of analysis. The first is whether any specific assistance proposed is legal or acceptable under domestic law, the provisions of the NPT, or other legally or politically binding nuclear technology nonproliferation regimes such as the Zangger Committee. This depends on the exact nature of the assistance offered (the transfer of certain nuclear-related technologies is prohibited under the provisions of the NPT and Zangger Committee rules) and the policy community's interpretation of existing laws and commitments. On a broader political level, it depends upon whether the proposed assistance crosses the line to legal acceptance or encouragement of India's and Pakistan's nuclear weapons status.

Is Crisis Stability a Legitimate Worry?

In addition to arguments made by those primarily concerned with nonproliferation, there is the question of whether a focus on safety and stability, particularly crisis stability, is warranted. At first blush, it would appear to be obvious. Most media coverage of the nuclear tests notes the long history of antagonism between India and Pakistan, the four major wars fought since their creation, and the fact that ballistic missile flight times between the capitals are under ten minutes.⁵² The media are not the only ones worried about stability in the region and the potential for use of nuclear weapons by India and/or Pakistan. The U.S. director of central intelligence, George Tenet, testified to the U.S. Congress in early 2001 that: "...relations between India and Pakistan remain volatile, making the risk of war between the two nuclear-armed adversaries unacceptably high."⁵³ The war in Afghanistan

has also served to highlight both the general instability in the region and the potential domestic instability in Pakistan – factors that do not necessarily affect the Indo-Pakistani dynamic but have implications for concerns about the safety and security of nuclear weapons and technology.

However, some scholars of the region as well as numerous policy makers and analysts in the region have argued that Indo-Pakistani relations are actually quite stable and that the chance of nuclear weapons use or large-scale war between them is quite low. In a detailed study in 1997, before the tests but well after both sides were assumed to have nuclear capabilities, noted India scholar Ashley Tellis argued that a type of "ugly stability" exists between India and Pakistan because neither state could achieve its desired political objectives through conventional war. This stability would be "ugly" because unconventional conflicts in the form of state-supported terrorism or state-supported insurgency would be the principal basis for security competition between Pakistan and India. This prediction seems to have been proven by the Kargil conflict, although it could be argued that this conflict began to push the upper limits of what could be called a low-intensity conflict because of the involvement of regular forces and the Indian Air Force. In fact, Kargil shows that low-intensity conflict cannot be deterred even if both sides have nuclear weapons although, as will be shown in chapter 3, nuclear weapons capability may have deterred certain types of conventional military responses to insurgency and terrorist operations.

Policy makers and analysts – primarily in India – argue that the United States is overly worried about crisis stability and the use of nuclear weapons.⁵⁴ Their arguments take a

number of forms. One is that the wars that have occurred between India and Pakistan are not serious – mere “communal riots with tanks.”⁵⁵ Presumably because the wars were not large and significant numbers of soldiers and civilians did not die, there is very little chance of escalation to the nuclear level. A second argument is that the disputes between India and Pakistan are between people, and particularly militaries, who come from a common background and tradition. Each side therefore understands the other very well and would not allow something as terrible as nuclear escalation to occur regardless of their disputes. A third argument that has been presented, at least in India, is that nuclear deterrence is very robust on the subcontinent. Laying out a sweeping Indian nuclear doctrine of countervalue, devastating second strikes against any country that uses nuclear weapons first, analysts in New Delhi argue that Pakistan would never escalate to the nuclear level.⁵⁶ Essentially, nuclear use by Pakistan would equal its total destruction, so no Pakistani leader would risk it. This explanation then usually, and paradoxically, ends with the assertion that Pakistan has an irresponsible first-use nuclear policy and therefore should be the focus of any efforts to improve stability. It is unclear, therefore, whether the Indians truly believe that Pakistan will be deterred by New Delhi’s nuclear capabilities or not.

Finally, from a policy-making perspective, it is important to understand how both India and Pakistan view this foreign worry about the region being a flashpoint and there being a danger of unintentional nuclear use or escalation to a nuclear exchange. To New Delhi, such discussion and analysis have a condescending and colonial tone, implying that India and Pakistan cannot manage nuclear weapons or crises.

Moreover, analysis of this sort implies a need for outside involvement, which India has resisted particularly regarding the Kashmir issue and relations with Pakistan. Pakistan, on the other hand, appears eager to discuss these issues and involve the international community. Underlying this willingness to engage are the following motives. First, Pakistan has traditionally attempted to involve the international community in its disputes with India, seeking to balance the economic, geopolitical, and military might of its neighbor. Second, after the coup, the military government has continued to seek to engage with the outside world in almost any manner to shore up its legitimacy. While these are not arguments for or against the existence of a stability problem, they are views that must be taken into account as one crafts policies to address nuclear safety and stability on the subcontinent.

While reassurances about nuclear stability are widespread, they are not at all certain and they are not immutable. In fact, Tellis’s analysis (discussed above) was written before the nuclear tests, and he notes that his conclusions about ugly stability only hold if three underlying conditions do not change: “Indian and Pakistani military capabilities remain roughly similar to what they are now (in relative terms), the domestic political environment in South Asia remains reasonably stable, and there is no dramatic shift in the regional balance of power.”⁵⁷ It could be argued that two of these conditions have indeed changed in the intervening four years and that the other could change substantially over the next fifteen years – approximately the period of time for this analysis.

First, India and Pakistan’s relative conventional military capabilities continue to diverge. The increases in India’s defense budget, its

increasing access to Russian high technology weapons, and progress in its own research and development are all helping it slowly to pull away from Pakistan in terms of relative military strength. Whether the gap will continue to grow or whether it will grow to the degree that it undermines Tellis's conclusions is open to debate, but the situation is dynamic. The ongoing military supply relationship between China and Pakistan, especially in nuclear and missile technology, also adds to the uncertainty of the situation. Second, the domestic political environment in South Asia is not stable. The military coup in Pakistan and the uncertainties about the restoration of civilian rule (and the instability that may come with it) are one source of instability. The ongoing tensions between the current leadership and many of the Islamic fundamentalist groups, exacerbated when Musharraf sided with the United States in the war on the Taliban, could still explode at any point. While the BJP strengthened its control in the most recent elections, Indian politics remain unpredictable, and Prime Minister Vajpayee's health continues to be a matter of concern. When he eventually passes from the scene, it is difficult to predict the course of the BJP, which contains much more nationalistic and hard-line elements. Conversely, the parties in the coalition with the BJP have aspirations to the prime minister post, and many of them are not as nationalistic, so changes of all types are possible. Third, the interplay of potential alignments and antagonisms among China, India, Pakistan, and the United States could significantly shift the regional balance of power in the coming years in ways that could either be stabilizing or destabilizing. The role of the United States in the region, particularly in a post-Taliban Afghanistan, is still unclear and could have a destabilizing effect as easily as a stabilizing one.

The line that the outside world should not worry, put forward by some Indian analysts, does not ring true for a number of reasons. First, the common military background and history are not at all comforting given the history of wars and crises in the region. Looking at other examples, common heritages and military backgrounds and training have done little to prevent wars in other regions of the world, the former Yugoslavia being only the most recent example. As will be detailed later in chapters 3 and 4, the presumption of common backgrounds and thinking has led to some dangerous mirror-imaging in crises, leading not to their resolution but to their escalation. Second, the robustness of nuclear deterrence is arguable at best and highly suspect at worst. As Keith Payne notes, deterrence policies can and have failed for numerous reasons, ranging from misapplication to their being applied against actors who operate outside the boundaries assumed in deterrence theory.⁵⁸ Theoretically, it has been argued that nuclear deterrence is quite robust generally and that more nuclear weapons will provide stability in relationships that had been unstable previously.⁵⁹ However, this theory has been challenged with theories of organizations, bureaucratic politics, and the role of individuals.⁶⁰ Either of these theoretical perspectives could provide the underpinning for policy choices. However, enough historical examples exist of the types of factors that undermine deterrence policies that it appears prudent to err on the side of caution and assume that deterrence may not be perfect.⁶¹ This prudent approach is strongly supported by the more general literature on crisis management and the concerns about the types of misperceptions that are common during crises.⁶²

Finally, it should be noted that both Washington and the international community are concerned about the safety and security of nuclear weapons in South Asia as well as about the likelihood of escalation in crises. During the Clinton administration, Washington engaged in discussions about these issues with both New Delhi and Islamabad in bilateral dialogues. After September 11, the Bush administration stepped up the dialogue on safety and security with Pakistan.⁶³ However, this is only part of the picture, and it does not appear that the quickly set up discussions made any progress on these sensitive issues. To develop and implement successful policies to address safety, security, and particularly stability, the United States needs to get more specific and develop an integrated long-term plan. First, the emphasis on the long-term nonproliferation or unproliferation goal versus the goal of improving safety and stability should be adjusted in favor of the latter. Second, the United States can and should become more specific in its discussion of ways in which India and Pakistan could improve safety, security, and stability, particularly in times of crisis. Even the discussions with Pakistan in the fall of 2001 were apparently limited by old interpretations of U.S. and international laws.⁶⁴ Such limitations need to be reviewed. Since Washington and the international community are already engaged with India and Pakistan on these issues, it would serve them well to get specific and to do so before decisions in New Delhi and Islamabad are made about doctrines and force structures or before the next crisis arises. (See chapter 5 for specific policy recommendations in this regard). To get specific, Washington needs to have a better sense of the possible futures of Indian and Pakistani doctrines and postures. This is the focus of chapter 2.

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Nuclear Force Structures & Doctrines

THE NUCLEAR WEAPONRY that the two rival states will acquire in the future and the evolving principles that will underwrite their capabilities will shape the contours of strategic and crisis stability. This chapter examines the various alternative nuclear postures and doctrines that each side could pursue over the course of the next fifteen years. Each possible force structure and doctrine of India and Pakistan will exert different pressures on the calculus of the two states in times of crisis. Indeed, certain mixes of nuclear capabilities may prove far more stabilizing or destabilizing than others. Therefore, setting forth a series of alternative nuclear force postures and doctrines can contribute to an understanding of the implications of such nuclear postures for crisis management.

As a first set of analytical inputs, this chapter examines 1) external and internal forces that could drive the nuclear force postures in South Asia; 2) emerging Indian and Pakistani force structures and doctrines; 3) several plausible nuclear futures; and 4) implications of the various force structures for strategic stability. The timeline for analysis is the period through 2015. While crises and conflicts could certainly erupt well before 2015, this timeframe provides a useful planning parameter against which to measure the evolution of Indian and Pakistani nuclear programs. Moreover, the nuclear futures of India and Pakistan will likely look far different from today. Therefore, projecting alternative nuclear futures for both states will help clarify the level and type of instability that might emerge in the South Asian nuclear balance.

Accelerators and Constraints on Nuclear Developments

Several different factors will help to determine the direction and pace of nuclear developments in India and Pakistan: domestic politics, strategic competition, technological considerations, economic considerations, and the policies of the international community.

Domestic Politics

First, domestic politics will have a critical influence on how India and Pakistan pursue their nuclear postures and on the future course of the nuclear balance. In India, absolute civilian supremacy over the military is a deeply embedded political tradition that is virtually ironclad. This has led to tight civilian control over decision-making processes and weapons development that are inherently military in nature. While less problematic in peacetime, the issue of command and control between

the political elite and the military leadership becomes crucial in times of crisis and conflict. It is still unclear whether the civilians have clearly mapped out a transfer of authority to their military counterparts that is responsive to the uncertainties of crisis. Pakistan, in contrast, is in the firm grip of a military regime. Moreover, the armed forces have traditionally retained almost absolute control over the nuclear weapons program with some minor role for the civilian bureaucracy, a phenomenon deeply rooted in the nation's history.¹ Even if civilian authority is restored, the military's influence over national security affairs will continue and the armed forces will retain the option of reemerging from the barracks. Beyond these sweeping observations, narrow sets of internal influences will shape each country's nuclear policies in unique ways.

In India, political upheaval and major realignments in the Lok Sabha, the Indian parliament, could directly influence government policy on nuclear capabilities. It is widely accepted that the rise of the BJP, a Hindu-based nationalist party, had a decisive influence on India's decision to break out of its self-imposed nuclear constraints.² Fulfilling India's quest for nuclear power status was a central component of the BJP's ideology, which was driven in large part by a virulent brand of nationalism. Indeed, the BJP's election manifesto included a promise to induct nuclear weapons. Some speculated that the party sought to use nuclear tests to increase its popularity and cement its political position. It is clear, then, that the rise and fall of political parties in national elections, an inherently unpredictable affair, could bring about shifts in nuclear policy.

Beyond party politics, other powerful elements in India will continue to lend momentum to expanding the nuclear program. Outspoken

and influential political figures and individuals have argued persistently in favor of new strategic thinking for India that would presumably justify a robust nuclear posture. India's foreign and defense minister, Jaswant Singh, has been among the most vocal. He has argued that the lack of a strategic culture and tradition in India has proved devastating to the nation's security and interests, lamenting:

In the last half century the Indian political-military leadership has not displayed the required strategic sense. Indian national interests were not adequately served...What, therefore, is the legacy of the past fifty years? An absence of certainties in security-related issues; no established land boundaries; an absence of a secure geopolitical environment; a devaluation of India's voice in global affairs and worrisomely, not even a beginning of any institutional framework for conceptualizing and managing the country's defence.³

He concludes that India would have to break out of its self-imposed strategic trap. In the nuclear realm, he asserts, "An examination of the first fifty years of Indian independence reveals that the country's moralistic nuclear policy and restraint did not really pay any measurable dividends."⁴ Given this, he argues, India had to conduct the tests in order to ensure that its nuclear option did not erode in the future. Moreover, the scientific community in India, or what Itty Abraham has termed the "scientific enclave," created a sprawling nuclear infrastructure that set the stage for conducting the tests. India's Defense Research and Development Organization (DRDO) has been a powerful force behind the movement toward testing.⁵ These vested interests will certainly drive India's future nuclear developments in weaponry and doctrine.

In Pakistan, the relative longevity of the military regime suggests that a quick return to "normalcy" remains a questionable proposition. While the military government has indicated that it intends to step down in 2002, its influence will almost certainly be felt beyond the general elections. General Pervez Musharraf's self-appointment as president in June 2001 has further entrenched the power of the military in the political system. This very uncertainty increases the unpredictability of Islamabad's evolving nuclear posture. Should Musharraf give up his authority at some future date, the transition to democratic governance could inaugurate a period of political confusion or even instability. This is particularly true given the crisis in South Asia that began in fall 2001. Despite this crisis, Musharraf has maintained that he will stick to his promised deadline for a return to civilian rule. Conversely, a failure to make the shift back to civilian rule could spark further instability. The restoration of civilian authority, if and when it occurs, will not necessarily guarantee clarity or predictability for Pakistan's nuclear program. Given the nation's nascent state of democracy, which has been punctuated by military coups and political upheaval, a civilian regime may be subject to even greater volatility. Indeed, Prime Minister Nawaz Sharif's decision to engage in tit-for-tat nuclear tests was largely a result of political maneuvers by opposition parties and the military to force his hand.⁶ Sharif's efforts to strengthen the prime minister's office through extra-constitutional measures before his ouster in 1999 also suggests that ambitious personalities could have a direct impact on Pakistan's nuclear decisions.

Among all domestic political influences, virulent nationalism and sectional politics (both are at times intertwined and thus indis-

tinguishable) are perhaps the most volatile in India and Pakistan. National pride and notions of prestige could drive the two states to pursue riskier courses of action. The jubilation in the streets after the Indian tests demonstrated the widely shared perception that nuclear weapons equated to great-power status. In the aftermath of the Indian tests, 70 percent of urban Pakistanis supported an immediate response in kind.⁷ Moreover, incendiary events in one country could directly shape threat perceptions and even prompt a corresponding response in the other. Whipped up xenophobia and religious or nationalistic fervor among the public could influence government decisions and hold each nation's policy hostage to public demands for reprisals. In India, clashes between Hindu nationalists and the Muslim community could spark tensions between Islamabad and New Delhi. The destruction of the Ayodhya mosque by Hindu radicals underscores the dangers of such religious confrontation. In Pakistan, the rise of increasingly powerful fundamentalist Islamic elements within the Pakistani military, state, and society could color decision-making processes. President Musharraf's crackdown on the fundamentalist elements in the wake of September 11 has set these movements back, but it is possible that it might eventually result in a backlash.

Strategic Competition

Second, historical strategic competition, including the intractable dispute over Kashmir, is a defining element in their respective nuclear programs. Divergent strategic considerations could drive India and Pakistan to pursue radically different nuclear force structures. The most prominent strategic realities that will determine the future paths of their nuclear postures are the fundamental power asymme-

tries (including landmass, population, military power, and economic health) between the two nations. Pakistan's geography poses a major defense planning challenge. In contrast to India's vast strategic depth, Pakistan suffers from limited defensive depth and is vulnerable to being cut in half at its mid point. Its conventional military capabilities are far inferior to India's. In addition to these tangible measures of power, both sides continue to suffer from severe misperceptions about the intentions and capabilities of the other. Posturing by both sides over the years has further clouded a true picture of each. So long as this fog persists, both sides will likely base their nuclear planning calculations on worst-case scenarios. Should either side unexpectedly stumble across information that fundamentally challenges its conventional wisdom of the other, a sudden acceleration of capabilities is a likely outcome. Moreover, "the fear and uncertainty induced by such actions could precipitate countervailing responses that set off a destabilizing action-reaction spiral between both states."⁸

While popular perceptions have focused primarily on the bilateral Indian-Pakistani dimension of the nuclear standoff, other, broader strategic factors could also drive nuclear developments in South Asia. For instance, India confronts a dual threat from Pakistan and China. Former Indian defense minister George Fernandes proclaimed that China was India's enemy number one. This perception is derived both from history and contemporary developments. China's punitive invasion of India in 1962 and its 1964 nuclear test left indelible imprints on the Indian psyche. More recently, China's economic growth, military modernization, potential geostrategic interests in the Indian Ocean (a vital passageway for energy supplies for both China and India), and

efforts to shore up ties with India's neighbors are all worrying trends for New Delhi. Most vexing, China and Pakistan have long shared a broad strategic alliance directed at counterbalancing India. Beijing's proliferation of nuclear weapons-related and missile technologies to Pakistan has been at the center of India's immediate security concerns. China's decades-old proliferation to Pakistan has been far more intense and extensive than that of North Korea. Moreover, Islamabad has played and will continue to play the "China card" at every opportunity to keep India strategically off balance. This card, however, does not always have the expected effect, and at times Islamabad has overestimated its weight.

The perceived China threat will fuel fears in New Delhi that Pakistan might be emboldened to take risky actions to destabilize the subcontinent. In the longer term, Chinese and Indian military modernization programs will enable the two states to project power hitherto beyond their reach that could pit them against each other over strategic regions such as the eastern Indian Ocean or the South China Sea. Whether China poses a genuine conventional military or nuclear threat is debatable. Beijing has demonstrated no visible territorial ambitions since 1962 and harsh geographic realities have long separated the two powers from direct strategic competition. Nevertheless, the Chinese threat provides a compelling and convenient political rationale for New Delhi to continue its nuclear program.

Pakistan faces no such two-front dilemma, and its strategic focus is locked exclusively on India. Islamabad's nuclear force structure will be designed to deter New Delhi's nuclear use against Pakistan and to counter India's conventional military superiority. However, the uneasy triangular relationship between China,

India, and Pakistan and the potential strategic competition between Beijing and New Delhi could set off a chain reaction that severely complicates Islamabad's nuclear planning. Indeed, India's perception of a Chinese threat could directly influence the future path of Pakistan's nuclear arsenal. However, Islamabad's internal strategic calculations qualify this grim assessment. One senior Pakistani nuclear policy maker argued that the future of India's nuclear forces would not affect Islamabad's nuclear posture. He noted that the number of targets (presumably civilian centers) in India would not change, implying a countervalue strategy.⁹ In other words, internal assessments of what constitutes sufficiency could offset externally driven factors.

Technological Considerations

Third, several technological considerations will influence the scale and sophistication of nuclear weapons and associated delivery systems. New Delhi's dogma of self-reliance has long been a double-edged sword. After early reliance on foreign technology transfers for its nuclear and missile programs, India's emphasis on indigenous production has often hindered rapid development. Despite an impressive technological base, the nation's industrial capacity remains backward compared to world-class standards. Many of India's domestically produced weapons, including those under foreign license, suffer from quality control problems and fail to meet the military's requirements.¹⁰ In the nuclear weapons realm, technologies to design and construct warheads to sit atop ballistic missiles are very difficult to master. Without significant foreign assistance, India could face an uphill battle to field an advanced, reliable nuclear force. Pakistan has traditionally relied on foreign sources for its nuclear

program, particularly from China and, to a lesser extent, North Korea. As a result, Islamabad has been able to leapfrog various technologies and even acquire fully assembled missiles from China. Despite Beijing's repeated pledges to curtail its proliferation behavior, China has often reneged on its promises.

As noted in chapter 1, future nuclear tests to improve weapons design and reliability are also a major technological issue for both countries. Given the strong political symbolism attached to testing, nuclear detonations for whatever purpose are an inherently interactive process. Neither side will be able to ignore them and refuse to respond in kind. The tit-for-tat tests in 1998 demonstrate this powerful domino effect. India may also perceive a greater need to test in order to validate certain technologies that cannot be tested through simulations. Pakistan, with the help of China, has had the opportunity to test its capabilities and may therefore feel less compelled to test.

The growth and level of technological sophistication in the private commercial sector could have spin-on effects for the nuclear forces in India and, to a lesser extent, Pakistan. China's space program demonstrates the close linkages between commercial and military space: Beijing's *Dong Feng* ICBM launchers became the basis for its commercial boosters. These benefits arising from civil-military synergies will hinge on continued economic growth, which puts Pakistan at a relative disadvantage. Cutting edge research and development from the private sector could help the military to leapfrog generations of technologies. The telecommunications industries in India and Pakistan could provide advanced communications equipment for secure nuclear command and control. India's space program could directly benefit the military in several

ways. Advances in space launch vehicles could improve India's ballistic missiles. The successful launches of communications satellites in recent years also create opportunities for developing military reconnaissance, command and control, communications, and battle damage assessment, all of which are critical components of a robust nuclear posture.

Economic Considerations

Fourth, while the level of economic growth will frame the resources devoted to developing nuclear weapons, the historical record indicates that economic under-performance has not deterred past advances in both countries. India's slow growth before the economic reforms of the 1990s did not prevent expenditures on a sprawling nuclear weapons program. Pakistan has long suffered from serious structural and systemic economic problems leading to persistently sluggish growth. Yet Islamabad's nuclear weapon and ballistic missile programs have enjoyed first call on financial resources and have been largely insulated from economic pressures. As a result, Pakistan has been able to amass an impressive nuclear arsenal. Since New Delhi abandoned economic planning in the early 1990s, healthy growth has replaced decades of under-performance. India will continue to enjoy a slightly lower rate of 5 percent to 6 percent growth in the coming years assuming that reforms continue. India's economic size in absolute terms also means that it can spend a relatively smaller amount of its GDP to compete with Pakistan (but probably not with China). In contrast, Pakistan struggles with immense external debt problems estimated at \$34.8 billion for 2000 – a staggering sum given its small and enfeebled economy – which pose a daunting economic challenge for Islamabad.¹¹ Pakistan has relied heavily on foreign

assistance and the infusion of funds from international financial institutions, particularly the IMF, in order to keep the economy running. Economic forecasts predict that Pakistan's economy will slow in the coming years. Consequently, India will be less constrained to pursue independently more ambitious nuclear modernization programs than Pakistan. This suggests that Islamabad will continue to look to outside powers – such as China and North Korea – for access to technologies and weaponry.

External Considerations

Finally, the policies of the United States and other major powers toward the region as well as the common position of the international community more broadly, can have an influence (albeit less dramatic) on nuclear developments in South Asia. Before September 11, the Bush administration's regional policies were evolving slowly. However, the trend was toward lifting sanctions on India and Pakistan and engaging more comprehensively on the issues of nuclear stability. After September 11, these policies evolved rapidly, sanctions were lifted, and U.S. engagement – particularly with Pakistan – skyrocketed. Despite this dramatic change in U.S. involvement in the region, it should be noted that in the past Washington and other capitals have had very little direct political influence over Indian and Pakistani policies on nuclear issues. The tests themselves attest to the collective impotence of the international community to change the behaviors of both countries on matters that they consider vital to their national security interests. International backlash after certain nuclear moves may at most give pause to both governments, but external diplomatic and economic considerations will always be subordinate to the other

drivers enumerated above. As Stephen Cohen forcefully states, “Indian and Pakistani nuclear policies are driven by calculations of national security and pride, and it will take more than lectures, the blunt application of sanctions, or the example of other states which have chosen not to build nuclear weapons, such as South Africa or Argentina, to significantly influence them.”¹²

The multifaceted nature of the accelerators and constraints on nuclear weapons development in South Asia highlights the wide range of alternative futures for each state. This very unpredictability makes policy formulation for the United States an inherently complex but nevertheless necessary task. In order to mitigate the uncertainties for policy makers, we must not only set forth the current state of nuclear weapons programs and doctrines for both countries but also develop alternative futures that they might pursue. Such an analytical exercise can highlight both the stabilizing and destabilizing aspects of the current and possible future nuclear balance.

Current Nuclear Doctrines and Capabilities in South Asia

The secrecy surrounding the nuclear programs in India and Pakistan poses significant methodological and intelligence problems in analyzing doctrines and capabilities. Outside observers simply do not have adequate and reliable information to account for the number and types of weapons they possess, to categorize their overall capabilities, or to measure their levels of readiness. Moreover, there are important divergences over definitions and interpretations of terms related to doctrine and capabilities. India and Pakistan have already developed a common vocabulary to describe their respective nuclear strategies, postures, and doctrines that

often differs from Western definitions and conceptions. Given this difference, it is important to clarify and delineate the terminologies that appear in this analysis. The following discussion analyzes “credible minimum deterrence” and “deployment” both to highlight the nuances of these terms and to avoid definitional pitfalls as they appear in this study.

Both Indian and Pakistani officials have proclaimed that their nuclear strategies are premised on “credible minimum deterrence.” What does this mean? Unfortunately, this phrase has a variety of connotations and analysts still differ on its exact meaning. Both India and Pakistan have failed to provide a clear definition themselves. For the purposes of this chapter, it is defined as the minimum nuclear force structure necessary to deter a nuclear or overwhelming conventional military attack. Under the credible minimum deterrence strategy, the country possesses a basic number of warheads and delivery systems that are or can be targeted at the adversary. The target set would consist largely of population centers, but may also include some infrastructure and military forces. The key to credible minimum deterrence is determining the essential numbers and types of nuclear weapons, together with a set of targets that would deter the other side from resorting to force using nuclear and/or conventional weapons. In order for the deterrent to remain credible, a sufficient number of nuclear weapons must be able to survive a first strike and then have the ability to retaliate. Clearly, the required numbers and sophistication of the nuclear force will vary depending on the intended adversary. As an example, China’s minimum deterrence against American nuclear weapons use has been premised on the ability to hold an urban center such as Los Angeles hostage with its estimated

twenty nuclear-armed intercontinental ballistic missiles.

The term “deployment” in the South Asian context poses another analytical dilemma that requires further clarification. First, it is difficult to verify deployment in either country based on open sources. Second, some analysts believe that neither country has the actual capacity or the will to deploy its arsenal. They contend that India and Pakistan would remain content with their respective declared nuclear capabilities while continuing research and development without fielding the weaponry. Third, full deployment requires the integration of several distinct components and stages. The warheads must be prepared for mating with the delivery systems and transported to the staging site. The warheads must then be placed on the delivery systems. Command and control arrangements, which could be either highly decentralized or tied closely to the national authority, then must be handed over to the military commanders operating the weapons. In the final stage, the nuclear force would be dispersed to mobile or fixed sites for launch. Depending on its strategy or readiness requirements, it is conceivable for either side to consider any of these phases as the “fully deployed stage.” Without an extremely sophisticated intelligence capability or highly intrusive inspections, determining whether India or Pakistan has reached complete deployment is an impossible task. To complicate matters further, Indian and Pakistani officials have avoided using the term “deployment.” Rather, as mentioned in chapter 1, the authorities have preferred to describe their weapons as having been “inducted.” Both sides have remained ambiguous about the exact definition of induction. It is clear that concrete definitions of certain terms will remain elusive and observ-

ers must be careful when interpreting Indian and Pakistani understanding of these terms.

India

India's nuclear doctrine remains in a state of transition and a comprehensive nuclear strategy has yet to emerge. Indeed, conflicting official statements on how the country intends to harness its nuclear weapons program have emerged since the tests. Several explanations can be attributed to this seemingly confused state of affairs and frustratingly slow pace of doctrinal development. First, New Delhi may be continuing the policy of opaqueness that it adopted after the first "peaceful nuclear test" in 1974. This low-profile approach sustains a high level of uncertainty to keep its rivals off balance. Second, nuclear doctrine must constantly evolve to reflect strategic realities. Finding a suitable nuclear doctrine that fits India's unique strategic requirements will remain a constant challenge. Third, the cacophony of (often conflicting) opinion among policy makers, retired officials, and academics further clouds any clarity in India's nuclear doctrine. India's democracy has enabled a variety of interests to voice their positions, which has in turn generated a tremendous amount of impenetrable intellectual "noise." In many ways this noise provides a convenient cover and vehicle for denial and deception by overwhelming observers with an overabundance of information. Finally, some contend that India still lacks a coherent strategic tradition to guide its thinking on nuclear strategy. Jaswant Singh argues that India's lack of a sense of history, the absence of a "territorial consciousness," the persistence of foreign domination, and the preoccupation with internal affairs have diverted intellectual energies from fostering a strategic culture.¹³ As a result, strategic thinking has

been virtually nonexistent in India's statecraft, which is often said to be ad hoc in nature. Others point to the deeply embedded normative considerations in India's political culture.¹⁴ According to Raja Menon, "Independent India started life with the belief that international relations, like society, could be governed by ethics and morality rather than practical realism."¹⁵ Whatever the explanations proffered, the secrecy surrounding India's nuclear doctrine makes projections of its future force structure difficult.

At present, only a semi-official draft document has approached a full articulation of India's future direction in nuclear doctrine. However, the subsequent controversy surrounding the report led the government to disavow its authoritativeness. In August 1999, the National Security Advisory Board (NSAB), an organ of the newly reorganized National Security Council, issued a well-publicized and highly controversial draft report on India's nuclear doctrine. Members of the NSAB included retired officials, military officers, and prominent academics. The content of the report initially caused a major stir in Pakistan, the international community, and India itself. The draft document outlined the main contours of a proposed nuclear doctrine for India:¹⁶

- A doctrine of credible minimum deterrence, a phrase left undefined in the document, that would be based on retaliation only; in other words, a no-first use policy
- A credible, survivable, effective, secure, and safe nuclear posture
- Nuclear forces based on a triad of land-, air-, and sea-based platforms
- An extensive command and control system and an early warning system,

including space-based assets, to support these forces

According to the document, the elements together would enable India “to shift from peacetime deployment to fully employable forces in the shortest possible time...for rapid punitive response.” Contrary to official reassurances after the tests, the NSAB document seemed to endorse an open-ended long-term development path for India’s nuclear forces. It essentially presented a wish list of capabilities that the advisory board hopes to acquire. Moreover, the report did not resolve or reconcile many crucial issues confronting India. The document failed to specify details on command and control, survivability, civil-military chain of command over nuclear use, and costs. The quest for “rapid punitive response” also suggested a far more aggressive, sophisticated, and decentralized capability, which provoked great global consternation. In response to the overwhelmingly negative domestic and international responses to the report, the Indian government was careful to distance itself from the document. Indeed, to date, the draft has received no official sanction. The Indian government may have concluded that in the future it should avoid discussions regarding its nuclear doctrine that could generate controversy.

The views of other authoritative officials and scholars in and outside of India have both conformed to and differed with the NSAB’s report. Most individuals agree that India’s nuclear posture centers on a no-first use doctrine and an assured second-strike capability against soft targets. However, in contrast to the NSAB’s proposals, a significant number of Indian analysts discount the need to build a large and sophisticated force for a rapid, overwhelming response against a nuclear attack. They argue that a second-strike

posture enables India to retaliate at a time (days, weeks, or even months) and on a scale of its own choosing.¹⁷ India’s relative strategic invulnerability in terms of geographic size, vast population, and large numbers of targets affords New Delhi such an unhurried option. These analysts further assert that New Delhi’s force structure can be limited in size for both Pakistan and China. They claim that India only needs to target an opponent’s largest population centers. In Pakistan’s case, the targeting of three major urban areas (Islamabad, Lahore, and Karachi) would probably suffice to inflict unacceptable and devastating damage. In China’s case, India cannot hope to compete numerically or technologically in the short to medium term. Moreover, China poses no cross-border conventional military threat to the Indian heartland that would warrant a more robust posture. Until longer-range delivery systems, such as the *Agni-III*, required to hit far-flung cities like Beijing become available in India’s inventory, holding hostage large cities in central China (Chengdu and Chongqing) would be sufficient. The leisurely pace with which New Delhi has sought to develop its doctrine and force structure appears to confirm a less ambitious national policy than the NSAB’s recommendations. This suggests that India will continue to engage in “creeping weaponization” until a force sufficient to constitute a nuclear posture emerges.

The country’s evolving command and control will be a major determining factor in the sophistication and scale of India’s force structure. At first glance, this assessment appears counterintuitive. The evolving force structure should logically dictate the command and control architecture. However, the inherent asymmetries in India’s civil-military relations will likely empower the command and control

desiderata to drive force structure requirements. At present, the democratically elected civilian government has deliberately chosen to place a high premium on civilian dominance over the nation's nuclear command structure. The bureaucracies governing defense and military policies are designed to ensure an absolute civilian control over the decision-making process and complete subordination of the military services. This institutional framework is deeply rooted in the history and tradition of India's peculiar civil-military relationship. As a result, any decision to use nuclear weapons rests entirely with the prime minister and the cabinet. Both the civilians and the military have joint custody of the nuclear capabilities. Each oversees different components of the assets that constitute the nuclear force. The military controls the delivery systems while the civilians safeguard the nuclear warheads. Should the need for nuclear use arise, the civilians and the military would convene to integrate these separated elements of the force into an employable capability. The civilians would then incrementally decentralize the authority for the military commanders to carry out the missions.

So far, the civilian elites have deliberately obfuscated the exact nature of this rigid, highly centralized arrangement. Whether processes exist by which a transfer of authority to the military can be made in an orderly manner, particularly in times of crisis, remains an open question. This reluctance to clarify the chain of command is partly driven by the self-reinforcing impulse to maintain exclusive civilian control. The political elites worry that any debate could weaken the rationale for this awkward system and, in turn, undermine civilian dominance. They are therefore unwilling and afraid to decentralize the command struc-

ture. Consequently, this element of India's current doctrine will be generally conservative in nature. Civilian dominance further reinforces the widely shared belief that India's forces should not be on a hair-trigger, launch-on-warning footing. This suggests that in the scenarios where nuclear weapons could be used, there will be a measure of warning time during which nuclear warheads could be mated with delivery systems and the launch authority passed on to the military commanders. This also implies that the Indian leadership has a high level of confidence in the ability of the evolving command and control system to survive a nuclear attack and then to initiate the authorization process to retaliate.

Data on India's nuclear program has varied wildly. The nuclear tests in 1998 provided a glimpse of the types of warheads that India was able to assemble. According to India's Bhabha Atomic Research Centre, the first round of tests on May 11 purportedly included a 43-kiloton thermonuclear device, a fission device with a 12-kiloton yield, and a sub-kiloton device. Two days later India detonated two devices within the 0.2- to 0.6-kiloton range. If these claims are to be believed, India is capable of producing a relatively wide range of nuclear warheads. However, independent seismic analyses suggest that the actual yields were lower than the official pronouncements. A British report published in July 2001 claims that the combined yield of all the devices totaled closer to 20 kilotons, implying that the thermonuclear weapons failed to detonate fully.¹⁸ These counter estimates have in turn cast doubt on New Delhi's ability to develop a hydrogen bomb in the near term.¹⁹

The state of India's nuclear infrastructure and stockpiles of fissile materials available for weaponization is equally unclear. With ori-

gins dating back to Prime Minister Nehru's first comprehensive four-year plan on developing India's nuclear power capabilities in 1952, India's quest for a weapons program began well before 1970.²⁰ Analysts generally agree that India already enjoys a self-sufficient nuclear fuel cycle, with the full complement of natural resources, nuclear research facilities, heavy water nuclear power plants, and fuel fabrication, enrichment, and reprocessing facilities.²¹ India's nuclear infrastructure has centered on plutonium reactors, although the country has also made forays into uranium-enrichment programs. It is believed that most of India's high-quality weapons-grade plutonium is derived from unsafeguarded research reactors.²² For example, the one hundred-megawatt Dhruva research reactor was the major source of the fissile materials for the 1998 tests (although other reactors may have contributed as well). The ability to siphon off materials from ostensibly civilian reactors for the weapons program in a short period of time is not in doubt (it took only two months after the new BJP government came to power to conduct the tests). The ability to exploit its civilian infrastructure means that India has a larger potential stockpile of fissile materials than Pakistan. There is still debate on whether India used its unsafeguarded civilian power reactors to extract weapons-grade plutonium for its 1998 test. While estimates of accumulated stockpiles of fissile material available for weaponization have differed (at times drastically) among various sources, reliable numbers have generally converged on upwards of three hundred kilograms of plutonium, enough to produce between sixty and seventy-five early generation devices.²³

Given that India has maintained a stranglehold on data regarding its nuclear weapons

program, it remains unclear how much of the fissile material has been converted into usable warheads. In March 2000, an MSNBC report, based on leaked U.S. intelligence, hinted at India's progress. It indicated that India might have completed only five bombs. The assessment also claimed that Pakistan's nuclear arsenal could be far larger than previously reported, suggesting that Islamabad may have weaponized most of its fissile material at a much faster rate than expected. How much of the information is true or relevant is debatable. As mentioned above, unlike Pakistan with its relationships with China and North Korea, India does not currently have a major external supplier of nuclear or missile technology. While it is widely assumed that India has the technology to design and manufacture gravity bombs, the lack of foreign assistance suggests that New Delhi may be behind Islamabad in its ability to miniaturize warheads for ballistic missiles with a proven design.

India's strategic delivery systems are at different stages of development and their operational status remains unclear. At present, New Delhi's frontline capabilities probably still center on its air leg. The British-made *Jaguar* and the Russian-supplied MiG-27 *Flogger* are ground-attack fighters that can carry out nuclear missions with few modifications. Given that India may have had a nuclear weapon well before it developed ballistic missiles, it is likely that its earlier devices were designed to be air dropped. In contrast to the unreliable MiG, the *Jaguar* boasts an advanced suite of electronics, sophisticated navigation and attack systems, and a larger combat radius. Among these assets, the *Jaguar* is perhaps best suited for nuclear strikes although it is an aging platform. While India's Su-30s, MiG-29s, and *Mirage* 2000s are designed primarily for air

superiority missions, they could also be converted to serve effectively as nuclear delivery platforms. In a journalistic account of India's nuclear program, Raj Chengappa claimed that India might have used a *Mirage* 2000 to drop a dummy gravity nuclear bomb in a 1994 flight test.²⁴ The uncertainties over the penetration capabilities and survivability of fighter aircraft after a preemptive strike have already forced India to shift its force structure toward its land-based ballistic missiles.

The principal delivery systems for India's strategic ballistic missile force will be the medium-to intermediate-range *Agni* series. The *Agni-I* was successfully tested in 1989 and reportedly has a range of 1,500 kilometers with a 1,000-kilogram payload. The *Agni-II* is currently the most potent delivery system and has apparently superseded the *Agni-I*. According to the DRDO, *Agni-II* has a 2,500-kilometer range with a 1,000-kilogram warhead. India successfully tested the missile in April 1999.²⁵ With this missile, India can easily put at risk all major targets in Pakistan. India announced in May 2001 that the missile is fully operational and would be deployed in the 2001-02 timeframe. India also formally approved the development and eventual deployment of the more capable *Agni-III*, which will have an estimated range of 3,500 kilometers. This missile would enable India to hold at risk targets throughout China. However, some analysts believe that it may take up to ten years before the missile enters large-scale production.²⁶ The media in late 1999 reported that New Delhi is also considering the development of ICBMs, the *Surya*, which would be designed to carry a nuclear warhead over 10,000 kilometers.

India currently operates three variants of the nuclear-capable, liquid-fueled, short-range *Prithvi* ballistic missiles (150-kilometer ver-

sion for the army, 250-kilometer version for the air force, and 350-kilometer version for the navy).²⁷ In August 2000, the Indian government apparently authorized the production of three hundred nuclear-capable *Prithvi* missiles.²⁸ Given the limited range and questionable operational reliability of all three types, the *Prithvis* are widely believed to be stop-gap measures until the more robust capabilities become fully deployable.²⁹ Indeed, for genuine operational usefulness, the *Prithvis* would have to be deployed close to the Pakistani border, a move that could provoke conventional or nuclear first strikes. India does not yet possess a sea-launched leg of the nuclear triad. In June 2001, a joint Indian-Russian team of scientists successfully tested a vertically launched supersonic cruise missile, which can be fitted on board a ship or submarine. However, given the persistent low levels of funding for the navy, substantive progress remains a long-term proposition.

Pakistan

Similar to its Indian counterpart, Pakistan's nuclear doctrine is equally vague and not well understood. Three major forces have shaped the nation's strategic doctrine. First, the birth of Pakistan in 1947 is an obvious contextual starting point. War with India and the incomplete partition are at the core of Pakistan's national identity, *raison d'être*, and strategic culture. In short, India and its potential threat (both imagined and real) to Pakistan's survival lie at the heart of Islamabad's strategic thinking in both the conventional and nuclear realms. Pakistan has consistently maintained that it developed a nuclear weapons program to counter India. Islamabad's response in kind to the 1998 Indian tests and subsequent rhetoric on the need to restore regional military bal-

ance conform with Pakistan's obsession with India's existential threat to the country. Second, unlike India's defense community, which is an amalgam of personalities and interests (predominantly civilian) in and out of government, Pakistan's armed forces have dominated every aspect of strategic thinking. The pre-eminence of the military has in turn resulted in a Pakistani nuclear doctrine and posture that are quite distinct from India's (elaborated below). Third, Pakistan suffers from perennial military and economic weaknesses. These vulnerabilities have forced the country to rely almost exclusively on international support for finances, technology transfers, and, in times of crisis, intervention. Hence, Islamabad is more sensitive to currying favorable external perceptions of its behavior. Ironically, this has led Pakistan to demonstrate relatively greater responsibility and transparency in its nuclear posture and doctrine as a way of garnering favorable foreign perceptions.

Immediately after the 1998 tests, Prime Minister Sharif announced that Pakistan was forced to conduct tests in order to reduce the military imbalance in South Asia. At the time of his announcement, Pakistan already possessed warheads that were products of proven designs and tests. Islamabad conducted the tests for political rather than strictly military reasons. He also stated that the weapons could be used to deter aggression during both conventional and nuclear wars, suggesting a first-use policy. The exact nature of the first-use policy remains unclear. But three distinct policy objectives can be inferred. First, Islamabad hopes to deter a first nuclear use by India. It firmly believes that New Delhi, despite India's repeated pronouncements of a second-strike policy, would contemplate attacking first in a crisis, perhaps to destroy Pakistan's nuclear

weapons capability and thus to prepare for a conventional strike. Second, Pakistan wants to have a limited capacity to deter or blunt an overwhelming Indian conventional attack. Third, it wishes to have the capacity to use nuclear weapons as a demonstration instrument to internationalize the crisis and invite outside intervention if the circumstances prove unfavorable to Pakistan.

Subsequent official statements also suggested that Pakistan had adopted a doctrine of minimum credible deterrence but – in line with its long-standing opaque posture – refused to specify or quantify what constituted this form of deterrence. The release of India's NSAB draft report deeply alarmed Islamabad. The open-ended conclusions of the document prompted Islamabad to issue several pointed responses. Throughout 2000, Pakistani officials declared that the country would need to develop a more proactive nuclear posture in order to counter India's conventional military superiority. Islamabad consistently rejected a policy of no-first use. Some strategists in Pakistan urged the government to deploy and disperse nuclear-tipped ballistic missiles at high-levels of readiness.

There is strong evidence that the government is still grappling with its options for doctrine and force structure and because of this it has taken a minimalist approach to its doctrine for the time being. While reports claim that the government formally established a nuclear doctrine in 2000 (withheld from public scrutiny), many Pakistani officials have admitted that the principles for nuclear use are still evolving. In the most authoritative statement yet, General Musharraf publicly noted that the warheads and delivery systems remain decoupled. This announcement dovetailed with Pakistan's policy of not deploying

its nuclear forces in order to demonstrate restraint to the international community. As a part of its public relations campaign, Islamabad has also declared that it has achieved a sufficient level of confidence in the survivability of the nuclear forces against a first strike. Whether such confidence is merely rhetorical or real, nuclear survivability from a first strike will be an ongoing challenge for Pakistani defense planners.

Pakistan's first-strike policy stems from three major interrelated vulnerabilities. First, the country lacks strategic depth geographically. India can easily threaten the few major cities without which Pakistan would cease to exist as a political entity. This stands in sharp contrast to India's landmass and far-flung and dispersed population centers. Second, Pakistan is highly exposed to a deep conventional military thrust that could geographically cut the nation in two. Such a blow would spell national disintegration. Third, there is a substantial asymmetry in conventional military power between the two rivals. As India's economy promises to grow consistently while Pakistan's stagnates, this imbalance of power is likely to tilt further in favor of India. Pakistan therefore must demonstrate the capability not only for deterrence but also for at least a limited use in warfighting. Pakistan could use nuclear weapons against the massed Indian ground forces prior to conflict in order to degrade the threat to its national survival. It could also signal the potential for nuclear use in order to internationalize the crisis and draw sympathetic external players into the fray.

In contrast to New Delhi, Islamabad has been relatively open about its command structure. Government officials and military leaders have repeatedly claimed that Islamabad has devised an elaborate and effective command

and control system that would prevent accidental or unauthorized launches. Islamabad also took steps to institutionalize its command and control mechanism. In February 2000, the government published a document that described in very general terms the country's nuclear command and control structure. In a brief statement, Pakistan's National Security Council declared that it had approved the establishment of the National Command Authority (NCA).³⁰ The NCA comprises the Employment Control Committee, Development Control Committee, and the Strategic Plans Division, which functions as the secretariat and coordinator of command and control networks. The main purpose of the organization is to formulate policy on the development and use of all strategic nuclear forces and associated organizations. The members of the NCA include the head of state or prime minister, ministers of foreign affairs and defense, chiefs of all the armed services, and directors of strategic organizations. In early 2001, Pakistan established the Nuclear Regulatory Authority to supervise the security, safety, reliability, and survivability of the country's nuclear-related installations. On October 7, 2001, immediately prior to the commencement of the U.S. bombing campaign against Afghanistan, the Pakistani government changed the key figures in the chain of command for nuclear weapons and also altered their storage procedures for nuclear devices.³¹

Despite official Pakistani reassurances that its arsenal is both safe from theft and secure to use or not use in times of crisis, it will take years if not decades to put in place effective mechanisms to manage the nuclear arsenal. The assurances originally were designed to win sanctions relief; now they are also designed to demonstrate effective and strong leadership

in a country with potentially severe internal problems as the war in Afghanistan winds down. Islamabad faces several fundamental challenges stemming from its nuclear doctrine that must be addressed as it considers how best to secure its arsenal. The presumed first-strike posture that Pakistan has adopted could have significant implications for command and control over its nuclear forces, especially in the absence of a sophisticated C2 architecture. The conviction that India would consider using its weapons first implies that the Pakistani leadership may need to disperse its forces early in any crisis, if not in peacetime, to avoid losing its retaliatory option should India conduct a disarming first strike. The short flight times needed for both Indian fighter aircraft and ballistic missiles to reach their targets add to the pressure to disperse. Moreover, Islamabad faces a nuclear survivability problem as a result of its conventional military weakness vis-à-vis India. A massive Indian invasion could overrun facilities and launch sites containing Pakistan's nuclear arsenal – essentially performing a disarming conventional first strike. Achieving the necessary connectivity between the leadership and military commanders is therefore a critical feature of Pakistan's command and control, particularly in times of crisis when response times are often very short. Additionally, there are many conceivable circumstances (ranging from uncertainty during crisis to miscommunication) that could tempt a commander to launch a preemptive or unauthorized strike.

Pakistan initiated its nuclear program in the early 1970s in response to its defeat in the 1971 war against India. The program accelerated after India's 1974 nuclear test. Given Pakistan's external sources of support for its nuclear program and associated delivery sys-

tems, the country probably enjoys a relatively robust and proven nuclear infrastructure for the short to medium term. China is suspected of providing warhead designs, highly enriched uranium (HEU), and uranium enrichment technologies. Beijing may even have permitted the Pakistanis to carry out detonations of weapons designs without the physics package at China's Lop Nor testing ground as long ago as 1983. After the 1998 tests, the Pakistani government declared that it had detonated six enriched-uranium based boosted-fission devices. These have a more efficient trigger mechanism that produces a higher explosive yield relative to the mass of the fissionable material. Islamabad claimed the successful tests of one twenty-five kiloton, two twelve-kiloton, and three sub-kiloton devices. As with the Indian tests, independent seismic evidence indicated that the detonation yields were much lower than Islamabad claimed.

Pakistan's nuclear infrastructure centers on uranium enrichment technologies that Islamabad acquired primarily from China. Pakistan also operates an unsafeguarded plutonium separation facility. Islamabad may be working on other enrichment and reprocessing plants that could increase the capacity for producing weapons-grade uranium and plutonium.³² Estimates have varied on the quantity of fissile material and warheads that Pakistan now possesses or has the potential to produce. Most calculations have converged on approximately six hundred-plus kilograms of HEU and over five kilograms of plutonium for thirty-five to forty warheads.³³ Substantial Chinese assistance, as noted above, may have enabled the Pakistanis to develop warheads small enough for arming ballistic missiles. Moreover, the March 2000 MSNBC report suggests that Islamabad may have weaponized far

more fissile material than Western intelligence expected.

With the help of China and North Korea, Pakistan's nuclear ballistic missiles are based on both liquid- and solid-fueled technologies (although substantial confusion persists over the designations of the missiles). Pakistan apparently acquired from North Korea technologies for the liquid-fueled *Ghauri-I* and *-II* with 1,500- and 2,000-kilometer ranges respectively.³⁴ Pyongyang's designations for the two missiles are the *No Dong-I* and *-II*. Pakistan successfully tested the *Ghauri-II* in April 1999. Islamabad may also be developing the *Ghauri-III* based on the 3,000-kilometer range *Taepodong-I* ballistic missile. This missile would enable Pakistan to hit any target in India. The Chinese have also supplied Islamabad with technologies and fully assembled missiles for the solid-fueled *Shaheen* series. The *Shaheen-I*, *-II*, and *-III* – with ranges of 300 kilometers, 800 kilometers, and 2,500 kilometers, respectively – are based on the Chinese M-11, M-9, and M-18. In April 1999, Islamabad tested the *Shaheen-I*. Pakistan indicated that the *Shaheen-II* would satisfy the nation's long-range strike capabilities, presumably against India. Indeed, the missile would put most of India's major population centers (even in the south) at risk. The solid-fuel technologies featured on the *Shaheen* will enable the Pakistanis to respond more rapidly and flexibly. Both the *Ghauri* and the *Shaheen* are mobile, suggesting that concealment and dispersement are central to Pakistan's nuclear strategy. The indigenously produced *Hatf-I* and *-II* have been deployed only on a limited basis because of their modest ranges (100 and 280 kilometers, respectively) and lack of sophisticated guidance. The total inventory and the operational status of the *Hatf* force are unknown.³⁵ It is likely that the

short-range missiles are stored clandestinely farther inland to avoid preemptive first strikes. Given their limited range, they would then be readied and deployed along the Indian border during crisis or war.

Pakistan likely had assembled nuclear devices before ballistic missiles became available, and some of its aircraft may therefore have been modified for nuclear missions. The A-5 *Fantans*, the French *Mirage-III/5s*, and F-16s in Pakistan's current fleet are all possible candidates for dropping nuclear weapons, but their limited combat ranges, penetrability concerns, and vulnerability to first strikes have likely relegated these fighters to last resort missions. The availability of ballistic missiles has also lessened the relevance of aircraft delivery. At present, sea-based nuclear capabilities belong in the theoretical realm for Pakistan. The dominance of the army and air force will ensure that developments in the naval leg of the nuclear force structure will be slow over the next ten to fifteen years.

Several preliminary conclusions can be drawn from this assessment of Pakistan's current nuclear doctrine and force structure. First, because of Pakistan's geographic, conventional military, and economic vulnerabilities, the doctrine of first use will dominate Pakistani nuclear thinking. Second, Islamabad will assiduously build up a comprehensive arsenal of ballistic missiles with ranges allowing it to strike deep into the Indian heartland. Third, Pakistan's military and industrial disadvantages will constrain its ability to expand the arsenal independently, and it will look to China and North Korea for ongoing technological assistance.

Future Nuclear Doctrines and Force Structures in South Asia

Some analysts have speculated that “recessed deterrence” – an opaque nuclear posture that both sides assumed before the tests – would continue to suffice for India and Pakistan. These observers contend that the tests were primarily politically motivated and had few strategic implications. Jasjit Singh defines recessed deterrence as a strategy that “would require a non-weaponised status, but where all necessary steps for ‘weaponisation’ and its usability have been taken.”³⁶ A recessed deterrent would permit either side to assemble a nuclear arsenal within a few months. The ability to deploy overtly would provide each with sufficient leverage to safeguard its national security interests.³⁷ Whether India and Pakistan have abandoned or are in the process of abandoning their recessed deterrence postures remains unclear. But recent evidence indicates that India and Pakistan have weaponized (by some estimates in larger quantities than expected) and have deployed or are in the process of deploying associated delivery systems. As mentioned above, “deployment” or “induction” – as Indian authorities prefer – can manifest itself in various configurations that do not fit neatly with familiar Western conceptions. For example, nuclear warheads and delivery systems that are fielded but de-mated and geographically separated by significant distances could constitute “full deployment” in the minds of Indian and Pakistani strategists. How far New Delhi and Islamabad are prepared to carry on with these nuclear developments remains unanswerable. But it is clear that the evolving force structures and doctrines outlined above suggest that the nuclear postures of both states will continue to grow in size and sophistication over the next decade.

In ten to fifteen years the interaction between doctrine and force structure within each country could create an irresistible internal logic of its own. Technological advances could change the force structure in ways that would require doctrinal adjustments to manage and harness new capabilities. Technological constraints could also shape the future command and control architectures on both sides. Safety mechanisms to prevent accidental or unauthorized launches are still in early stages of development in India and Pakistan, largely because arsenals are only now beginning to be weaponized and possibly deployed. More centralized command structures and restrictive procedures on nuclear use are therefore likely to dominate for some time to come. Alternatively, perceived satisfaction with doctrine and strategic requirements could freeze further developments in the nuclear arsenals. For example, the Indian government appears content with an assured second-strike capability, which suggests a relatively minimalist level of sufficiency to deter Pakistan and China.

Beyond the interactive process within each country, there is also an action-reaction relationship between the two states. Both sides are fundamentally at odds with each other over clashing national interests. Since each side views the strategic competition as a zero-sum game, any perceived gain on one side would likely spur the other to respond in kind or devise a counter. As mentioned above, each side suffers from grievous misperceptions (both in strengths and weaknesses) of the other, which could exacerbate acute anxieties on each side. Lessons learned from past and future crises could further feed such misunderstanding, thereby forcing the leaderships to reassess and formulate radically different nuclear strategies. Nuclear stability or volatil-

ity will depend on the potent and potentially combustible mix of these complex internal and external factors.

This section outlines three general nuclear doctrines and force structures that each side could assume in the first ten to fifteen years of the twenty-first century. Again, the fifteen-year timeline provides a useful planning parameter and allows sufficient time for the nuclear futures of each side to mature in meaningfully measurable ways. For purposes of simplification (and to avoid the common pitfalls of definitional confusion), the analysis will focus on three alternative postures (low, medium, and high ranges) that India and Pakistan could pursue. The three alternatives are not definitive. Indeed, it is entirely conceivable that certain components of all three will coexist. Moreover, incremental weaponization over the next decade would allow certain elements of the force posture to develop ahead of others. Each of these force structures will also be subject to the strategic drivers (such as deep-seated threat perceptions) mentioned at the outset of this chapter.

India's Low Nuclear Posture³⁸

A linear projection of trends since the 1998 tests suggests that India could pursue a relatively conservative nuclear strategy, essentially maintaining its current doctrine and force structure. Open source materials indicate that New Delhi has not radically expanded the number of warheads or overtly deployed ballistic missiles. India's inherent advantages over Pakistan and its satisfaction with the current level of sufficiency for deterring China could lead New Delhi to adopt a restrained posture. The nuclear doctrine that underwrites this low projection is based on a credible threat of punishment. First, India would abide by its

established stance on no first use. Second, the doctrine would be focused on guaranteed rather than rapid reaction to a nuclear first strike. Third, New Delhi's targeting would be inherently countervalue in nature. In peacetime, the components of the nuclear weapons would be dispersed geographically and placed under separate authorities. The civilian leadership would maintain control over the unassembled nuclear warheads. The military would oversee the control of the delivery systems, which would be stored away from the launch sites and the warheads. The delivery systems would be maintained at varying levels of readiness. In times of "supreme crisis," the civilian and military leaders would set in motion the process that would integrate the various parts of the nuclear weapon for deployment and employment. For this leisurely posture, an inventory of 150 weapons with ten- to twenty- kiloton yields by 2010 would suffice for deterring Pakistan and China. The delivery systems would center primarily on tactical strike aircraft and, assuming that India has successfully designed a miniaturized warhead, a handful of *Agni-II* missiles.

India's Medium Nuclear Posture

This posture resembles the first model with a few modifications. Deteriorating strategic trends and domestic considerations could undermine the constraints imposed by normative considerations and rigid civil-military relations, thereby pushing India to pursue a numerically larger and possibly technologically more sophisticated posture. New Delhi's perceptions of the Chinese threat could worsen over the next decade and a half. Recent evidence already indicates that Chinese nuclear posture will not remain static. Solid-fuel, road-mobile strategic missiles, which will replace

obsolescent liquid-fuel, fixed ICBMs, will be slowly incorporated into the Chinese inventory. Some analysts have even argued that Beijing's nuclear doctrine has shifted gradually (a process underway for more than a decade) from minimum deterrence to limited deterrence, which connotes the capacity to use nuclear weapons for calibrated escalation and warfighting.

How would Beijing's ongoing nuclear modernization affect India's security? What kind of Indian response would such developments trigger? First, since nuclear weapons are closely linked to prestige and national pride, India might feel compelled to keep pace with the Chinese. Second, a larger and more capable nuclear arsenal based on limited deterrence could enable Beijing to impose a limited form of escalatory dominance on India. The prospect of such Chinese pressure or intervention on behalf of Pakistan in a future crisis could prove politically unpalatable. Third, China may build a missile defense system that could fundamentally erode the deterrent value of India's small nuclear force. Fears about China's nuclear superiority would undoubtedly create tremendous domestic pressures and political justifications for a more powerful arsenal in India.

Similar to the first model, this model projects that India would still build a nuclear force structure designed for an assured second-strike capability. The civilian leadership would continue to maintain strict control over the decision-making process and the employment of the nuclear assets. In contrast to the first model, however, India would shift away from its tactical strike aircraft for the delivery of nuclear weapons. New Delhi would induct larger numbers of survivable mobile *Agni-II* intermediate range ballistic missiles (IRBMs),

which would form the backbone of its nuclear deterrent. The induction or deployment of these missiles could take on several configurations. The warheads and delivery systems could be de-mated but placed in closer proximity or located in the same facility. The warheads and delivery systems could be assembled but stored in a secured location away from the launch site. Both of these options enhance responsiveness while retaining a high level of procedural control over the employment of nuclear weapons.

However, several additional considerations would have to be taken into account for this posture. First, in order to heighten its deterrence credibility against China, India would have to expand its target set to include far-flung strategically important cities such as Beijing and Shanghai. Whether the longer-range *Agni-III* will be ready for deployment in ten years remains an open question. Second, India may have to increase the destructive power of its warheads, such as boosted fission and possibly thermonuclear devices, to bolster its deterrent. Given the questionable track record of India's warhead development, it is unclear whether New Delhi would be able to construct high-yield warheads and, more importantly, miniaturize them to sit atop ballistic missiles. On a related point, India may have to conduct more nuclear tests for quality control and to validate miniaturized designs. Third, a larger and dispersed force would require the civilians to improve command and control to tighten their control over the arsenal. Within the 2015 timeframe, it will be challenging for India to acquire the more technologically sophisticated C2 system that would have to accompany such a process. New Delhi would have to address a range of issues, including security (theft prevention), safety (accident prevention), reli-

ability, and survivability at a higher and more sophisticated level with such a force posture.

India's High Nuclear Posture

India may take enough steps in ten to fifteen years to ensure that it could acquire a radically larger and more sophisticated nuclear force. Such a ready arsenal would most resemble Western conceptions of full deployment. The warheads and delivery systems would be mated for employment. These assembled weapons could be stored near or at the launch site. The missiles could be at a lower readiness level whereby targeting, fueling, and other preparations could only commence with authorization from the civilian leadership. Assuming that India could design and/or acquire a robust command and control and early warning system it might even place the nuclear force on higher levels of readiness including launch on order and, most destabilizing, launch on warning. The military would enjoy a greater autonomy or pre-delegated authority to launch. While this model is the least likely politically and technologically, it is still worth examining the drivers that would compel India to move toward a far more ambitious nuclear posture in the next ten to fifteen years.

Exogenous shocks or internal assessments of the nation's defense requirements could influence Indian thinking on nuclear issues independently of each other. As the NSAB report clearly demonstrates, there are many individuals and more hawkish schools of thought in and out of government that believe India should pursue a robust nuclear posture. Influential figures, such as the current foreign and defense minister, Jaswant Singh, assert that India needs to abandon its normative constraints and pursue a realist orientation. Some analysts go further and argue that this shift

has been long overdue. They believe that India needs to energize the process further to catch up with the rest of the world.³⁹ In other words, whether the security environment worsens or not, India should nonetheless pursue a nuclear posture commensurate with its international status and its security interests. They are convinced that a credible nuclear capability at more sophisticated levels would endow India with the necessary prestige and power on the world stage.

Externally, increased hostilities (actual or rhetorical) with China and Pakistan or China's continued proliferation to Pakistan could all exacerbate New Delhi's threat perceptions. Indeed, it could strengthen the hands of the hawks noted above. China's nuclear modernization program could accelerate faster than anticipated. Should Pakistan accumulate enough weaponry and associated intelligence and targeting assets that it could threaten a disarming first strike, India would have to develop an even more robust second strike that could survive preemption. These events together could also force a gradual transformation in India's strategic culture, international outlook, and behavior. India may feel compelled to shed its normative constraints and move toward a realpolitik orientation. This may unleash its desire to play a greater role on the global stage. Provided that sustainable economic growth continues, the political will to carry the financial burden would enable India to pursue a larger and more diverse nuclear force.

These domestic or external forces would drive India to develop and begin to deploy a land-air-sea triad. While estimates of the required numbers of warheads vary widely, one study calls for an end state of an arsenal with three hundred-plus warheads. Jaswant Singh asserts that a credible deterrent for India

would require the ability to hit as many as sixty primary and secondary targets.⁴⁰ India would have to devote substantial resources to developing the sea leg of the triad to ensure maximum survivability and to safeguard its assured second-strike capability. This sea-based element could include both ballistic and cruise missiles launched from a surface ship or a submarine. Again, while analysts differ on how many submarines would be needed, most concur that at least one to two submarines, each carrying a minimum of twelve ballistic missiles, would have to be operational at any given time. Taking into account maintenance and refitting cycles, a fleet of three to four submarines could fulfill this requirement. Given the technical difficulties associated with a sea-launched capability, particularly in the SLBM configuration, India would likely still be struggling to achieve this capacity by 2010 but may reach it by 2015.

India would seek to deploy ICBMs capable of reaching as far as Beijing and all other major cities in eastern China. Bharat Karnad estimates that India would have at least five ICBMs by 2010 and as many as fifteen or more by 2020. Given the advanced stage of its IRBMs, their inventory could grow to ten by 2010 and up to twenty-five by 2020.⁴¹ With such growth, India would surely have to conduct missile tests to validate accuracy, range, and reliability in the intervening years. As mentioned for the medium-level model, India may find it necessary to increase the yield of its nuclear warheads in order to strengthen its deterrent force. There would then be more political pressure to develop thermonuclear weapons, which would heighten the likelihood of additional nuclear tests. Some additional components to the posture would be required, including space-based assets for early warning, battle

management, and command and control to help India assess the growing threats from two fronts. India already enjoys a relatively advanced space-launch industry from which to exploit commercial space technologies. As a larger nuclear state in this projection, India might seek a missile defense capability to counter accidental or unauthorized launches from either Pakistan or China or to render Islamabad's deterrent obsolete. Escalatory dominance could then become an even more attractive option for New Delhi. Many of these new elements would be in early stages of development. The technological constraints noted in the second model would persist, and it seems likely that India would be struggling to master these sophisticated technologies and the doctrines and management systems necessary to use them optimally.

Pakistan's Low Nuclear Posture

Pakistan is probably edging toward such a posture at present. Several drivers could motivate Islamabad to pursue this restrained approach. First, the external environment and relations with India could stabilize sufficiently for Pakistan to feel secure enough to freeze further nuclear developments. Second, external resources from China and North Korea could dry up unexpectedly. For example, the North Korean regime could conceivably collapse in the next decade. Alternatively, nonproliferation pressures from the United States or improved relations with Washington could decrease the willingness among external suppliers to provide further support to Pakistan and influence decisions in Islamabad itself about how far to go in developing its arsenals.

This minimum posture would entail the deployment of a limited number of weapons. There would be a mix of aircraft and ballistic

missiles as delivery vehicles. The latter, a combination of liquid-fuel and solid-fuel rockets, would over time begin to dominate the force structure. Most of the weapons would be targeted primarily against India's major cities. The rest would be kept in reserve for demonstration purposes or actual use on a conventional battlefield. Some weapons may be fully deployed (mated and otherwise prepared for launch) while others remain at low levels of readiness. The nuclear weapons would likely be mounted on road-mobile launchers. Other weaponized warheads would be de-mated from their delivery systems. Both the warheads and delivery systems might be in different storage facilities or be located at the same facilities. Both the ready weapons and the separated components of the arsenal would be widely dispersed in hidden storage sites. The command and control structure governing this force would still be relatively rudimentary. Commanders and operators on the ground would have to await orders from the highest levels of authority to launch. During crisis, the separated weapons would be reconstituted and deployed relatively quickly while the fully deployed missiles would be able to engage in evasive maneuvers to avoid preemptive strikes.

Pakistan's Medium Nuclear Posture

This more robust posture does not deviate far from the minimum stance outlined above. In this case, the Pakistani leadership would believe that a larger arsenal is necessary to maintain a credible first-strike capability. The security environment would still be tense and punctuated by regular standoffs with India over Kashmir and other issues. India would also be in the process of building up a nuclear capability that is moving beyond the low pos-

ture. As noted earlier, intensification of the Sino-Indian rivalry may automatically raise Pakistan's perceived level of sufficiency for deterrence. So long as Chinese and North Korean technology transfers continue, Pakistan would be able to sustain a larger force and keep up with new technologies.

This medium posture would consist of a larger and more sophisticated nuclear force. The solid-fueled, road-mobile ballistic missiles would begin to eclipse the liquid-fuel rockets. Many would be based on the *Shaheen-II* and perhaps the *Ghauri-III*. This would enable Pakistan to deploy its forces farther from India, making them less vulnerable to preemption. Aircraft delivery would be largely relegated to last-resort missions. Some of the weapons would be targeted at a larger set of population centers, including cities deep in southern India. The remaining force would be reserved for demonstrations and limited warfighting. Warfighting weapons would be focused primarily against an invading conventional force within Pakistani territory or close to the Indo-Pakistan border. Most of the missiles would have warheads and be fully deployed at relatively low levels of readiness. A small number of weapons might still be de-mated and hidden in separate storage facilities. The command and control system would be more sophisticated, with some ground-based radar for early warning and a more sophisticated secure communications network linking the leadership to the field commanders.

Pakistan's High Nuclear Posture

The security environment would have to deteriorate drastically to drive Islamabad to pursue such a course, resulting in a full-blown arms race on the subcontinent. China's continued nuclear modernization could enable Beijing to

field a force based on credible limited deterrence, forcing India to accelerate its nuclear program in response and setting off a chain reaction in South Asia. Major reconfigurations in regional relations could also radicalize Pakistan's threat perceptions. The United States and India could form a new strategic partnership. This could force Pakistan to foster deeper political and military cooperation with China and possibly Russia as a strategic counterweight. India could succeed in fielding a sea-launched nuclear deterrent. Unlike India's ground-based and air-launched nuclear force, a submarine fleet would be able to operate virtually undetected, thereby creating an impregnable deterrent. Given Pakistan's deep distrust of Indian intentions, a submarine lurking in the open seas could fuel fears (however unwarranted) of a bolt-from-the-blue attack.

In response to these trends, Pakistan could be compelled to develop a much more comprehensive and highly decentralized nuclear arsenal for a wider range of targets and missions. A larger number of solid-fuel, road-mobile, long-range ballistic missiles would dominate the force structure. Tactical fighter delivery would play a minor role if any at all. A larger counterforce arsenal would accompany the capacity to decimate major cities throughout India. An inventory of shorter-range missiles would be built up for use against India's conventional forces, while the longer-range weapons would be targeted against India's nuclear command and control centers and launch facilities. Islamabad would also begin to engage in the research and development of a naval nuclear option. Pakistan would harness a more sophisticated command and control system that integrates its conventional forces with the nuclear posture for a limited flexible-response capability. Many of the pro-

grams would still be in the early stages by the 2010-15 timeframe and would likely take another decade to become fully operational.

Implications for Strategic Stability

A key condition that would ensure strategic stability in ten to fifteen years is mutual vulnerability. As long as both sides can credibly inflict unacceptable damage on each other, mutual deterrence should work if neither side falls prey to mistaken perceptions or faulty decision making (as noted in chapter 1). For India, such a capability must include an assured countervalue second-strike capability to deter and, failing that, to respond to a Pakistani first strike. Over the next decade, New Delhi's level of sufficiency to retaliate against a first strike would still center on the ability to target three or four major population centers in Pakistan. As mentioned above, Pakistan would cease to function as a state with the destruction of those cities. As long as India can ensure that its forces targeted at Pakistan are survivable, New Delhi may not feel compelled to build a force beyond the low to medium postures or to move toward a first-strike policy. Even if India pursues one of the more advanced postures outlined above, strategic stability would not necessarily suffer. In fact, a more sophisticated force, particularly with an SLBM component, would bolster India's confidence in its ability to survive a first strike and punish Pakistan, thereby reinforcing its second-strike policy. While an increase in the size of the nuclear force could help India expand the list of Pakistani targets, it is more likely that India would divert those weapons for use against the more formidable threat from China.

Unlike India, Islamabad cannot strategically afford a posture based entirely on retaliation. Pakistan's first-strike policy encompasses a

broad range of objectives: 1) to deter Indian first use (a widely accepted assumption among Pakistani strategists); 2) to defend the homeland against an Indian conventional invasion; 3) to demonstrate its resolve; and 4) to internationalize any situation that could prove unfavorable. Given these more demanding requirements, Pakistan's level of sufficiency has always been higher than that of India. It would in fact increase as India's nuclear and conventional capabilities improve in the ten- to fifteen-year timeframe. In terms of deterrence, Islamabad would have to hold hostage larger numbers of Indian cities to ensure deterrence credibility. In terms of warfighting, the number of weapons required would vary depending on the intensity and severity of the crisis (such as how many conventional thrusts it must contend with). This suggests that Pakistan will pursue postures with higher numbers of weapons than India over the next ten to fifteen years to ensure mutual vulnerability. Given these factors, a more robust Pakistani nuclear posture may be the most conducive to strategic stability. For example, a larger, flexible, and responsive nuclear force would alleviate Islamabad's persistent fear of preemption by an Indian nuclear or conventional first strike, thereby minimizing or even avoiding the "use it or lose it" concern.

Assuming that both sides maintain satisfactory levels of sufficiency within the fifteen-year timeframe, nuclear weapons in South Asia would likely deter nuclear and conventional wars. Pakistan would not contemplate a nuclear first strike because this would invite national annihilation. India's second-strike policy would ensure that it would never attack Pakistan unless it was struck first. Pakistan's first-strike policy would prevent India from contemplating a conventional

invasion while Islamabad would be too weak (and even weaker in the future) to challenge New Delhi on the battlefield. However, it is unclear whether nuclear weapons would deter conflicts below the conventional threshold. Indeed, as will be seen in the next chapter, both the 1990 war and the 1999 Kargil conflict suggest that Pakistan might be emboldened to engage in low-intensity conflict under the protective cover of its nuclear deterrent. If Islamabad believes that it can resort to similar strategies in the future and if New Delhi is deterred from escalating a low-intensity conflict, then nuclear weapons could in fact prolong the ongoing struggle over Kashmir. Such an outcome, as will be shown in chapter 4, also presents the possibility for escalation through a combination of misperceptions and domestic political pressures.

The gravest danger to strategic stability in ten to fifteen years would be the emergence of an asymmetry (real or perceived) between Indian and Pakistani nuclear postures. Drastic shifts in the force posture on either side could heighten threat perceptions and trigger a vicious action-reaction cycle. A qualitatively or quantitatively higher posture in the nuclear arsenal could spark counter moves that could prove highly destabilizing. In the case of Pakistan, it could receive large numbers of fully assembled warheads or delivery systems from China or North Korea during the 2015 timeframe that significantly increase its first-strike force. A more robust Pakistani first-strike force that New Delhi perceives to be a precursor to a disarming capability might lead India to reconsider its second-strike policy or to acquire additional capabilities in order to preclude a successful Pakistani first strike. India could introduce indigenously produced or foreign built sea-based platforms into its nuclear

arsenal, which would virtually guarantee its assured retaliatory posture. The Pakistanis might then contemplate preemptive attacks before India fields such capabilities. This interactive dynamic suggests that sudden or unexpected transitions to higher postures on either side would likely be strategically destabilizing. Even if such posture changes do not occur suddenly, the perception that they have or are about to could be just as destabilizing. Such a situation could not be resolved with changes in hardware and would have to be addressed at a more fundamental level, as discussed in chapter 5.

Whether the future force structures actually turn out to be stabilizing or destabilizing depends largely on the future political and military context in which they exist and that, in turn, depends in part on the history of the region and the lessons that each side has taken from that history and will apply in future crises and wars.

Endnotes for Chapter Two

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Stability Issues from Past Wars and Crises

In thinking about future crisis stability between India and Pakistan, it is necessary to move beyond the deterrence concepts that evolved over two generations of standoff between the United States and the Soviet Union. Most South Asian analysts suggest that such concepts have limited utility on the subcontinent and that Western observers simply ignore the history and complexities of the region. In a study of the role of deterrence in the 1965 war Sumit Ganguly declares "...that notions of deterrence have to be grounded in specific historical circumstances because of the crucial role that domestic politics play in both shaping and unraveling deterrence strategies."¹ In chapter 2, the discussion began to move beyond the U.S.-Soviet Cold War experience by sketching out, as clearly as possible, the evolutionary paths that India's and Pakistan's nuclear strategies, doctrines, and force sizes and structures may take. Several important factors were presented, including domestic politics and history that help shape these possible futures.

Both New Delhi and Islamabad have obviously learned from observing the U.S.-Soviet experience, even though they are starting from different technological levels for both weapons and delivery systems. The accompanying technologies available for command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) are also at significantly different levels than at the beginning of the U.S.-Soviet nuclear competition. In South Asia the technical level of the weapons and delivery systems far outstrips those of the available intelligence, reconnaissance, and C4 capabilities, prompting the potential for different types of instability.

In this chapter, we seek to build yet more region-specific information that will help in analyzing future crisis stability. We will do this by examining the wars, crises, and near crises that have characterized Indo-Pakistani relations since 1947. The goal of this examination is to identify a number of critical variables that could influence future crises, how they might unfold, how they may escalate, and how they can be resolved. In looking at previous wars, crises, and near crises, we will seek to identify their cause or causes; the patterns of escalation in each; the critical turning points; the methods of de-escalation attempted; the lessons learned by each side; and finally, the role of nuclear weapons, if any. This chapter identifies key trends and patterns in these crises and wars. These trends and patterns will then be used in chapter 4 as a basis for developing future crisis scenarios. Combined with the analysis set forth in chapter 2, chapter 4 will then provide a sense of future crisis dynamics, escalation potential, and instabilities.

Given the large body of work that exists on the various India-Pakistan wars and crises, this study does not attempt to reassess each

of them anew. Rather it draws on key studies and histories of each, supplementing them with insights from interviews with U.S. policy makers and analysts as well as with current and past Indian and Pakistani policy makers and analysts. None of the accounts are perfect, even those that have been subjected to lengthy and rigorous historical analysis. Furthermore, India and Pakistan each viewed the crises and their outcomes very differently and for the most part continue to do so. Moreover, no two crises are the same because of differing issues as well as personalities involved and lessons learned – correctly or not – from every previous experience. However, the point of this study is not to predict perfectly the next crisis and how it will unfold. Rather it is to provide some parameters for speculating about possible future crises so as to guide analysis regarding potential stabilizing measures that would reduce the possibility of nuclear escalation and enhance the prospect that such crises might even be prevented.

Before discussing the various wars and crises that have occurred between Pakistan and India, several points should be noted. First, it is important to remember that despite the heated rhetoric and the breathless news coverage of Kashmir, the disputed territory is not the only reason that India and Pakistan have gone to war or have had disputes. The causes of wars and crises have varied over time although Kashmir has been a recurring theme in the antagonisms between the two states. There have also been long periods of relative peace between New Delhi and Islamabad. Second, not all crises involving these two states have involved antagonisms between them. Indians are quick to point out, quite rightly, that they had a war with China, and indeed that war was important in pushing decisions by India and

Pakistan with regard both to their conventional military capabilities and, at least in India's case, the public debate about the pace and purpose of their nuclear program.² Future crises involving China could include nuclear escalation as well, but for this study, we are concentrating on the India-Pakistani relationship, as the probabilities for future conflict along that axis at the moment seem significantly greater. In addition, the crisis in South Asia precipitated by the September 11, 2001, terrorist attacks on the United States has obvious nuclear stability implications, as noted at the outset of chapter 1. While the full implications of this crisis will take months if not years to unfold and assess, it shows clearly that crises in the region not necessarily directly involving conflict between India and Pakistan can affect nuclear stability in numerous ways.

Nuclear weapons have already been involved in some way or another with almost all of the major wars or crises between Pakistan and India. The involvement has varied and, as will be shown below, has included decisions to build nuclear weapons, threats to build them, to use them, and to attack nuclear production facilities. The first three wars between India and Pakistan – 1947-48, 1965, and 1971 – occurred before either state had developed nuclear weapons capabilities, but the latter two each had nuclear-related consequences, particularly the 1971 conflict. Additionally, all of the disputes between the two states have their origins in the conflict that accompanied the two states' independence. The crises and wars after 1971 took place when at least one side was able to demonstrate nuclear weapons capabilities.

Given the focus of this monograph on questions of nuclear stability, the first major war between Pakistan and India will be described only briefly. The focus will be on those wars,

crises, and near crises that had implications for nuclear weapons development or had nuclear-related threats associated with them.

Kashmir Divided: 1947-1948

The antagonism between India and Pakistan is as old as their independence.³ Before the British government granted independence in 1947, there was major strife among Hindus, Muslims, and Sikhs, which resulted in vast population shifts in anticipation of the end of British rule. Only two months after independence, India and Pakistan were at war over Jammu and Kashmir, a disputed territory that, before independence, was a princely state. Instead of following the partition formula whereby Muslim majority areas "located in territories contiguous to Pakistan would accede to Pakistan and the rest would go to India," individual rulers of princely states were allowed to accede to either India or Pakistan, with independence not being considered a real option.⁴ Communal violence escalated in Kashmir, the ruler vacillated, and rebels from Pakistan's Northwest Frontier Province crossed into Kashmir rallying behind Kashmiris from what Pakistan now calls Azad Kashmir. The Pakistani government supported the rebels, who advanced on Kashmir's capital of Srinagar, causing the monarch to flee. The next day, Kashmir's ruler signed an accession agreement with India. India airlifted troops into the region and pushed the rebels back.

The UN brokered a cease-fire that went into effect on January 1, 1949, leaving the final political status of the region unresolved and the situation on the ground divided along a cease-fire line. India was left in control of the majority of what had been Jammu and Kashmir. Kashmir's political limbo has given rise to numerous disputes between the two states,

internal political crises, and attempts by each side unilaterally to determine definitively the area's status. Neither side has been willing to compromise on the territory for two reasons. First, the land is strategically important for both, providing strategic depth for Pakistan and constituting critical military high ground for India, somewhat like the Golan Heights for Israel. More importantly, the territory is symbolic for each country in terms of its legitimacy. Pakistan was founded on the theory that Muslims on the subcontinent could only have their rights ensured if they had their own country. If a Muslim-majority area (Kashmir) could thrive in Hindu-dominated India, then Pakistan's *raison d'être* could be called into question.⁵ Conversely, India prides itself on being a secular democracy that protects the rights of all minorities. If it cannot successfully incorporate Kashmir, then its legitimacy could also be challenged.

Kashmir Again: Indo-Pakistani War of 1965

After the early battles over Kashmir, India and Pakistan managed not to fight a major war for another sixteen years. The next one, however, was again largely about Kashmir, although conventional forces also clashed farther south. The 1965 war demonstrates one way in which conventional (and possibly nuclear as well) deterrence can fail on the subcontinent.⁶

In late 1963, unrest broke out in Kashmir because of the disappearance of an Islamic religious relic. Although the relic was returned a year later, the unrest was one of several variables that caused the Pakistani leadership to believe the time was ripe to test India's control of Kashmir. In addition, Pakistani leaders saw India's military buildup after New Delhi's defeat by Beijing in a 1962 border war

as a future threat and saw a window closing for challenging India militarily over Kashmir. Nehru's death in 1964 and the subsequent struggles for leadership between Shastri and Indira Gandhi also led Islamabad to believe that India was entering a period of political weakness and division.⁷ Pakistan worried that India's legal maneuverings to remove Kashmir's special legal status and the joining together of the state's National Congress party with the Indian Congress party constituted an attempt by New Delhi to settle Kashmir's status unilaterally. Finally, and according to one prominent scholar, more speculatively, the Pakistani leadership was worried about India's progress in building nuclear weapons. Based on statements by Indian weapons scientists, Pakistani president Ayub Khan and Foreign Minister Bhutto were worried that India would have the bomb soon. In fact, Bhutto's famous statement that Pakistan would eat grass if necessary to build a nuclear weapon was made to a British journalist in 1965 in response to a question of what Pakistan would do if India got the atomic bomb.⁸

As part of President Ayub Khan's policy of "leaning on India" to test Prime Minister Shastri's mettle, in early 1965 Pakistan sent patrols into the Rann of Kutch, an area only above water about one-half of the year, near Karachi and the Arabian Sea.⁹ India responded with its own military patrols, but the Pakistanis outmaneuvered them, and the Indians withdrew as the rainy season began. Shastri agreed to submit the Rann dispute to legal arbitration, drawing howls of protest from the Indian press and Parliament, and feeding Pakistani beliefs that India was politically and militarily weak.

The summer of 1965 began with escalated rhetoric and a probing attack by Pakistan in

the Kargil sector of Kashmir. India successfully counterattacked and took some territory held by Pakistan since 1948. Under pressure from the United Kingdom, the two sides agreed to a cease-fire on 27 June. In early August, Pakistan launched Operation Gibraltar, and thousands of irregulars and special units infiltrated across the cease-fire line into Kashmir from Azad Kashmir and possibly Pakistan proper in hopes that the locals would rise up to help them overthrow Indian rule.¹⁰ However, local Kashmiris did not rise up and in fact called the police to inform on the raiders.¹¹ In late August, India successfully counterattacked, pushing many of the infiltrators back, capturing some key passes, and seizing more Pakistani territory. In response, on September 1, Pakistan escalated, striking with armor into southern Jammu near the narrow area known as the “chicken’s neck” and threatening a key road approaching the city of Srinagar, which if captured would have cut off India’s forces in Kashmir. Both sides’ air forces engaged at this point, and India responded by crossing the international border on the ground farther south, attacking with its armored forces toward Lahore and Sailkot. This move raised the stakes of the conflict considerably, as Indian forces were striking at the heart of Pakistan and threatening, if they advanced, to cut the country in two. Pakistan’s armored counterattack against this thrust was ambushed at Khem Karan in Punjab, and the overall outcome of this large tank battle was a stalemate.¹²

Attempts to De-escalate the Crisis

By this point, the international community was concerned and directly involved in trying to stop the fighting. The United States, the United Kingdom, and the United Nations all pressed both sides for restraint. Even Moscow

joined in, calling for a halt to the fighting. UN Secretary General U Thant’s early September visit to the region was unsuccessful in stopping the fighting, but after ten days of intense fighting, forces on both sides stalled, neither being able to advance upon key objectives – for Pakistan the road to Srinagar and for India, Lahore.

In an interesting twist to the crisis, on September 17 China threatened to broaden the conflict. It gave India an ultimatum to remove certain construction works in Tibet or face what it termed “grave consequences.”¹³ China had provided rhetorical support for Pakistan at the outset of the crisis, but this escalation brought both the United States and Moscow in on the other side. Washington and Moscow’s warning led Beijing to extend its deadline, diluting the ultimatum. Finally, faced with a third UN Security Council resolution, this one demanding a cease-fire, and recognizing both a stalemate on the ground and ammunition shortages, India and Pakistan accepted a cease-fire on September 20 and 22.¹⁴ Both sides claimed victory, but the result was a stalemate, forces on both sides returned to their original positions, and control of territory reverted to the status quo ante. The Tashkent Declaration of January 10, 1966, brokered by the Soviet Union, included return of prisoners of war and a withdraw to original lines of control, but it did not attempt to settle the larger issue of Kashmir.¹⁵

Lessons

New Delhi was pleased with the military outcome of the 1965 war; India had successfully held Kashmir, countered Pakistan’s escalation, and fended off China’s ultimatum. Some elements in India were not pleased with the Tashkent Declaration because India gave up

some of the territory it had captured, particularly some key passes in Kashmir, and because the accord failed to name Pakistan as the aggressor.¹⁶ Oddly enough, the victory produced renewed calls in India for the accelerated development of nuclear weapons. The drivers for these calls were China's ultimatum (Beijing had tested its first nuclear weapon less than a year before, in October 1964) and Washington's cutting off of aid during the war. Both incidents led many politicians and analysts to believe that India had to have nuclear weapons. While Prime Minister Shastri publicly rebuffed these calls, India's scientists apparently accelerated their research and development efforts, moving India even closer to a weapons capability.¹⁷

Pakistan's morale suffered a deep blow by the loss. It had believed that it was martially superior to India, if only in spirit. Moreover, the fact that Pakistan had been unable to provoke a popular uprising in Kashmir was keenly disappointing to the Pakistani leadership, who had been sure it would occur. Islamabad also felt for the first time a threat by India outside of Kashmir as New Delhi showed both a willingness and a capability to threaten the heartland of West Pakistan with armored maneuver forces. This lesson, and worry, were to be repeated in 1971, 1987, and 1990. Finally, Pakistan too learned that self-reliance was imperative for future confrontations. While China made the right noises at the outset of the crisis and tried an ultimatum, it was trumped by the two superpowers. As noted above, Pakistan might have been worried about India's progress in the nuclear field, and this concern could have been part of the reason for the 1965 conflict. If so, it would then make sense that Pakistan began thinking seriously at this point about developing its own atomic bomb. As described below,

Pakistan would move to developing an active program, starting in 1971.

One analysis postulates that the 1965 war provides a good study as to why conventional deterrence can fail, particularly in the South Asia context. Sumit Ganguly posits that the military balance at the time would have argued against Pakistan attacking and that the classic elements of deterrence were present: India's capability and credibility, recognized by Pakistan. His conclusion is that decision makers were not entirely rational and dispassionate in their decision making, largely because of domestic political factors. Specifically, India did not realize the impact that its rearmament (directed at China after 1962) would have on Pakistan's calculations about the future. On the other side, Pakistan had fundamentally flawed estimates of military success, which in turn were based on skewed estimates of the military balance and an underestimation of Indian resolve. Not only was Pakistan's analysis about the static nature of the balance flawed, but it had the incorrect, but powerful belief that time was not on the side of Islamabad.¹⁸ The conclusion to be carried forward from this war is that rational deterrence theory, at least that based on conventional weapons, needs to be adjusted for cognitive and affective limitations brought on by such variables as personalities and domestic politics.

The 1971 War – Bangladesh

The 1971 war had its origins in a domestic political crisis in Pakistan. This in turn was the result of the fact that, at the time, Pakistan was a geographically divided country, each half with a different ethnic makeup, but it was ruled by a central government, and military, dominated by Punjabis from the west. The political issues this situation raised came to a

head in December 1970 when the ethnically Bengali, Awami League from more populous East Pakistan won a majority of seats in Parliament. West Pakistan, home to the political and military elite of Pakistan, did not want to surrender its control of the state, and negotiations ensued between Zulfikar Ali Bhutto and Yahya Khan for the west and Bengali leader Mujibur Rahman for the east, seeking to find some *modus vivendi*. The negotiations broke down without agreement in March 1971, and the West Pakistan-controlled military cracked down on a burgeoning independence movement in East Pakistan. East Pakistan's political rulers fled to India and formed a government-in-exile, and refugees from East Pakistan fled the spiraling violence into India, setting off an international crisis that would lead to India and Pakistan's third war.

Bengali insurgents from East Pakistan began operating out of India, and in July, India decided that it would support a war to "liberate" East Pakistan (eventually renamed Bangladesh).¹⁹ In the fall of 1971, India's assistance to the rebels was ramped up to include artillery support for their raids, logistical support, and bases in India. India also apparently had planned for an all-out invasion in early December to liberate the East Pakistani capital of Dhaka, but the Pakistanis acted preemptively with air strikes on India on December 3 and formally declaring war on December 4. India responded with its planned invasion on December 6, and it captured Dhaka ten days later. On the same day, Pakistani forces in East Pakistan surrendered, and a day later, Pakistan agreed to an Indian-proposed unconditional cease-fire in the west as well, where clashes had been occurring along the cease-fire line in Kashmir and south in Punjab.²⁰

Attempts to End the War

This war occurred amid a swirl of international activity involving the United States, the Soviet Union, and China that colored the international reaction to it and skewed attempts to bring it to an early conclusion. Throughout the spring of 1971, the United States was negotiating its opening to China, which was formally announced on July 15, 1971. Pakistan played a facilitating role in this entente, and Washington therefore was inclined to support Islamabad's position in conflicts with India. Nixon and Kissinger decided that the United States must tilt toward Pakistan, the weaker of the two sides, as part of its grand strategy. This tilt, and its consequences in terms of China, took tangible form when Kissinger apparently told the Indians in August of 1971 that the United States would be "unable to help you against China in the event of China's involvement in an Indo-Pakistan war."²¹ Given Washington's involvement in convincing Beijing to back off its ultimatum in 1965, this confirmed for New Delhi its need for a different alignment. At the same time, India unveiled its new treaty of friendship with the Soviet Union, further alienating Washington and coloring the latter's view of the struggle on the subcontinent.

As a result of this set of events, the United States sided against India. Specifically, Washington cut off all assistance to India on December 2 and on December 10 it sent the aircraft carrier USS *Enterprise* and its battle group into the Bay of Bengal. Simultaneously, Washington advised Pakistan not to accept a cease-fire limited only to the east. It also gave Moscow an ultimatum, calling on it to reign in its new "friend," India. The Soviet Union responded that India had no aggressive intentions in the west, and Indira Gandhi

echoed this position publicly on December 12.²² Finally, on the same day China told the United States that it had no interest in intervening, pulling out the last prop from under Pakistan. The international intervention was crucial because each side refused to negotiate or communicate in any way with the other during this crisis.²³

The 1971 war was closed out with the negotiation of the “Text of India-Pakistan Agreement on Promotion of a Friendly Relationship,” more popularly known as the Simla Pact, in June and July 1972. Pakistan argued that it negotiated the agreement under duress as India still held large numbers of Pakistanis as prisoners of war.²⁴ The pact, which commits both countries to solving their differences peacefully, is to this day interpreted differently by the two sides. Indians emphasize the provision that all issues, including Kashmir, should be settled bilaterally while Pakistan points out the mention of the United Nations in the pact and argues therefore that the UN and its earlier resolutions on the Kashmir issue should still be applied.²⁵ Finally, the pact called for both sides to respect and newly demarcate the cease-fire line in Jammu and Kashmir, turning it into what was termed a line of control – essentially a de facto border.

Lessons

The lessons of 1971 for India were of two types – one related to Pakistan and another related to its place in the international order. In terms of Pakistan, the 1971 war was a clear victory for India militarily, bolstering its confidence vis-à-vis its rival and eliminating its difficult two-front strategic situation with the independence of Bangladesh. On the international front, Soviet diplomatic support coupled with the formal agreement solidified New Delhi’s

relationship with Moscow. In addition, China was shown not to be willing to challenge India’s security directly. For all of these reasons, George Perkovich argues that the 1971 war “...did not create a security imperative to develop nuclear weapons.”²⁶ Some argue that the *Enterprise* (and the implicit nuclear threat it carried) created a rationale for India to take the next step in its nuclear development, but Perkovich argues persuasively that this was more indirect and merely built on India’s desire for prestige and an improved self-image that in turn fed its nuclear program. In fact, the chronology of the decisions on the subsequent 1974 “peaceful nuclear explosion” is very difficult to piece together, but much evidence points to decisions on moving ahead having been taken before both the 1971 war and the entry of the *Enterprise* into the Bay of Bengal.²⁷

The lessons Pakistan took away from the 1971 war, however, were quite different. First, the war confirmed the worst fears of Pakistanis – that India had both the desire and the ability to dismember Pakistan using conventional forces. In fact, Pakistanis believe that India was behind the Awami League and Bengali regional separatism in the east.²⁸ Second, Pakistan’s potential ally, China, was reducing its interest in the subcontinent and would not be much help in the future conventionally if Pakistan were threatened by India. Unlike in 1965, China this time did not even attempt to pressure India and even Pakistan’s role in facilitating U.S.-Chinese ties was insufficient to bring about helpful actions from Beijing. U.S. intervention against India, while welcomed by Islamabad, came too late to “save” East Pakistan. The result was that Pakistan, under Bhutto’s leadership, took formal steps to launch a nuclear weapons program in January 1972.²⁹

Issues

One issue that became clear in the 1971 war and the international community's reaction to it, is that crises in the region do not occur in a vacuum. The level of activity and engagement by the United States, the Soviet Union, and China were all dictated by larger considerations and their maneuverings vis-à-vis one another. A second issue is that again domestic politics and political changes were catalysts to war. Neither side anticipated that the situation in East Pakistan would result in a war, at least not at the outset of the crisis. Third, each viewed the intentions of the other as implacably hostile. This colored all planning and decision making, and decisions that resulted were based on narrowed expectations and fixed perceptions based on history and fixed patterns of thinking.³⁰ Finally, the relationship between security and decisions about the need for nuclear weapons remains complex. India detonated a nuclear weapon three years after the war despite the fact that its victory and the attendant solidification of its ties with the Soviet Union should have reduced a security motive for moving ahead with its nuclear program. While as Perkovich argues, prestige and other domestic influences were significant in Indian decisions on moving ahead with its program, the recent war, regardless of outcome, likely helped to support the advocates of testing India's weapons capability, if only with a "peaceful" demonstration. Pakistan, on the other hand, provides clearer evidence of a more direct relationship between perceived security requirements and a desire to obtain nuclear weapons.

The Preemption Scares of the 1980s

Throughout the early and mid 1980s, various reports surfaced in the U.S., British, and South

Asian media about possible attacks on Pakistan's nuclear facilities. The sources for the articles were most often intelligence from the United States or statements by Pakistani leaders in response to questions about these press articles. The scenarios variously had Israel, India, the two in some combination, or the Soviet Union preparing to attack Pakistan's nuclear facilities, including reprocessing and enrichment facilities in Kahuta.³¹ The precedent set by Israel's 1981 preemptive attack on the Osirak nuclear reactor in Iraq apparently fired the imagination of the media, Pakistanis, intelligence analysts in the United States, and possibly military planners in India.

In September 1984, leaks of a U.S. intelligence briefing to the Senate caused the United States to make public statements that it would support Pakistan if it were attacked in such a way. India responded by seeking a corresponding assurance from the Soviet Union that it would support its client if the United States took any action.³² The United States also apparently told President Zia of Pakistan that it saw no immediate threat and that it would warn Islamabad if it saw signs of an imminent attack.³³ Other reports allege that Indira Gandhi considered such an attack but dismissed it because of a concern that Pakistan would retaliate against Indian nuclear facilities.³⁴ A more complex scare arose in the middle of 1986, when a Soviet demarche to Pakistan was interpreted as a threat to attack if Pakistan acquired nuclear weapons. Again, Islamabad engaged Washington, which sent a demarche to Moscow and was told that it was all a misinterpretation.³⁵ The early bilateral scares probably led to the agreement between President Zia and Prime Minister Rajiv Gandhi, announced on December 17, 1985, not to attack each other's nuclear installations. This

agreement was formally signed on December 31, 1988 and ratified on January 27, 1991.³⁶

These scares were not only prompted by the Israeli example. They were also based on changes and perceived changes in the strategic stability equation between the two sides. In one case, Pakistan was concerned when India acquired modern, long-range strike aircraft that were capable of low-level penetration of Pakistani airspace – the U.K.-manufactured *Jaguars*. On the other side, Pakistan's nuclear weapons infrastructure was still perceived to be limited in size and scope – an inviting target for preemption. Once Pakistan crossed the line to weaponization and had produced enough fissile material, it could easily be dispersed to various locations, making it more difficult to target. If India was actually considering such a strike, it would have been doing so because it believed that the broad strategic balance between the two was changing and that its window for any sort of preemptive action was closing.

Siachen Glacier

The Siachen glacier, an inhospitable piece of territory in the north of Kashmir, became the site of military confrontations between India and Pakistan in 1984. Largely because of its altitude, inaccessibility, lack of population, and lack of strategic importance, the UN did not demarcate the glacier during the cease-fire line exercise in 1949. In the aftermath of the Simla Pact, India and Pakistan chose not to remedy this anomaly when they demarcated the line of control. As a result, it was unclear exactly who had either control of, or more importantly, rights to this piece of territory. In the late 1970s and early 1980s a series of events greatly increased worry in New Delhi. These events included increased international mountain-

eering expeditions mounted from Pakistani territory to Siachen and the publication of several atlases showing the line of control extending to the Chinese border in a way that substantiated the Pakistani claim to control the glacier.³⁷

In response to what New Delhi perceived as a weakening of its claim to this territory, the Indian army launched Operation Meghdoot on April 13, 1984. The Indian military occupied key passes in the Saltoro range dominating the approaches to the glacier, and subsequent Pakistani attempts to dislodge them failed.³⁸ Fearing that ceding any ground or rights in this disputed area would cascade to further losses in Kashmir, both India and Pakistan committed substantial forces to the battle. A little over a year-and-a-half after the battle began, the two sides agreed to negotiate bilaterally in hopes of solving the dispute and easing the fighting. Six rounds of talks were held through 1992 with no resolution. Immediately before the 1990 crisis, the fifth round appeared to produce some progress, but both sides quickly retreated from any apparent concessions, and the rising tensions in the rest of Kashmir scuttled any optimism.³⁹ Meanwhile, the fighting continues to this day, at altitudes ranging from twelve thousand to twenty-four thousand feet with Indian forces still holding the high ground and Pakistani forces still seeking to dislodge them. Since 1984, over four thousand soldiers have been killed and over twice that number have been wounded, providing an ongoing source of tension between the two sides.⁴⁰

While not a crisis in which nuclear weapons have played any part, the ongoing fighting in Siachen continues to poison the atmosphere between the two parties. Moreover, it is a crisis in which there is relatively little international intervention, largely because no one has ever

seen it as having a chance to escalate. Islamabad has decried this lack of interest, claiming that the international community failed to act when India unilaterally changed the situation on the ground in disputed territory, something both sides pledged not to do in the Simla Pact. More recently, Pakistan notes that the international condemnation of the 1999 Kargil operation is evidence of bias against it because India was never similarly condemned for what they claim is a similar exercise on Siachen in 1984.

The Brasstacks Crisis of 1986–1987

In 1986 Prime Minister Rajiv Gandhi and the newly minted army chief of staff, General K. Sundarji, wanted both to show off and to test India's growing conventional capabilities. In particular, Sundarji wanted to test the ability of the Indian armed forces to conduct large-scale, combined-arms warfare with air support and new command and control concepts, building on the air-land battle concepts that he learned while attending the U.S. Command and General Staff College. Gandhi, it seems, did not have strictly military purposes in mind and was apparently fascinated simply by the idea of conducting a very large exercise – larger than anything ever conducted in South Asia. Other theories suggest that there were additional motivations for the exercises. Although key participants deny this, some circumstantial evidence suggests that at least Sundarji and Defense Secretary Arun Singh may have been setting up a situation that would coax Pakistan into attacking India, thereby providing a pretext for striking back and crushing the Pakistani military. A third possibility is that India's leadership wanted to use the exercise to send a political signal to Pakistan, warning it to cease what New Delhi saw as its meddling in the

Sikh uprising. Which of these three explanations is the truth, or whether it was some mix of the three, probably will never be known.⁴¹

The result of Sundarji and Gandhi's early 1986 discussions was a series of military exercises dubbed Brasstacks I-IV. Brasstacks I and II were map, computer, and sand table exercises. Brasstacks III, conducted in November and December of 1986, was a field training exercise conducted in segments by different services and parts of the army. Brasstacks IV, scheduled for February to March 1987, was supposed to pull it all together in a field training exercise using combined arms and multi-service coordination. This last portion of the exercise was to take place in the Rajasthan desert near the Pakistani border.

The political script for the exercise built on recent events and in many ways anticipated the actual crisis of 1990. The exercise scenario had events in Kashmir spiraling out of control and the simultaneous declaration of an independent state of Khalistan by Sikh militants. While the former was not even a remote possibility at that time, the Sikh independence movement was still very much in the minds of Indian planners. Only three years before, in June 1984, the Indian army had conducted Operation Blue Star, an assault on the Sikh Golden Temple complex, resulting in the death of an estimated six hundred to one thousand people. The Sikh rebellion was claimed by the Indians to have been supported by foreign powers, namely Pakistan, and the scenario for the exercise played out this supposition. In response to the events in Kashmir and Khalistan, the exercise script called for Pakistan to make a military thrust into India to help liberate these two lands. In response, the exercise had the Indian army halt the invasion and undertake a counteroffensive to carry the conflict into Pakistan.

The exercise transformed into a crisis after the Pakistani government became nervous about Indian intentions (because of its own internal unrest problems in the Sindh) and responded by extending the stay of its own military units in the vicinity of the border after their winter exercises ended. Pakistan's Army Reserve South, consisting of an armored division and an infantry division, remained in the Bahawalpur area near the border after their exercise ended. Army Reserve North, also consisting of an armored division and an infantry division, moved to the Gujranwala areas in the Ravi-Chenab corridor, west of the Shakargarh salient. In addition, Pakistan took other steps to prepare for possible conflict, including activating some reserves and moving ammunition forward. Finally, in early January 1987, Pakistan moved its Army Reserve South across a key river into a position that was at least theoretically better for an offensive pincer movement into India. These moves in turn triggered Indian anxieties about an invasion by Pakistan roughly along the lines envisioned in the exercise scenario. New Delhi responded by manning defensive positions close to the border and making other military preparations to blunt any potential Pakistani military thrusts across the border.

Attempts to Prevent War and De-escalate the crisis

From the first detection of the exercise plan by Pakistani intelligence in August 1986, Pakistani officials sought to gain clarification about the size and scope of the exercise. Some on the Indian side questioned the motives for Pakistani expressions of concern, arguing either that they were unwarranted or that they were merely intended to create a crisis atmosphere and wring more military assistance out of the

United States. Regardless, the communications between the two sides about the exercise during late 1986 appear to have been less than satisfactory from the Pakistani perspective, despite the fact that they apparently occurred at quite high levels including the directors general for military operations (DGMO) and even the prime ministers at the time. Interestingly, however, as the crisis continued and indeed escalated into 1987, direct communications via the DGMO hotline were not used (December 8, 1986 to January 23, 1987).

In late January both sides were sufficiently concerned to reopen several channels of dialogue with one another and begin making somewhat less alarming statements to the press. The hotline between the two DGMOs was activated on January 24 and public statements by both sides indicated a desire to de-escalate the crisis. On January 25, the two prime ministers spoke by phone, further easing tensions, and on January 31, the two sides met at the foreign secretary level for several days of negotiations on how specifically to de-escalate the crisis. An accord was reached on February 4 whereby both sides promised not to attack each other, pledged to avoid provocative actions along the border, and began to pull their units back from the Ravi-Chenab corridor over the next two weeks.⁴² The pullouts began, starting with the Pakistani Army Reserve North, and on February 21, President Zia traveled to India for an Indian-Pakistani cricket match (a trip dubbed "cricket diplomacy"), bringing the crisis to a close. India ended up holding the Brasstacks IV maneuvers in March, but they were watched closely by the press and the diplomatic corps.

Lessons

Interestingly, neither Pakistan nor India has seen fit to conduct any formal lessons-learned

studies of this crisis. Scholars outside the country or national scholars residing outside of South Asia have initiated the vast majority of the analyses. In part this may be because neither side ever had any intention to go to war and therefore the crisis is not perceived as serious. There was also no nuclear play in this crisis, perhaps adding to the perception that its origins, progress, and resolution are not worthy of extensive study.⁴³ This is unfortunate because Brasstacks represents an interesting chance to examine a crisis from at least two perspectives depending on which theory one subscribes to about the motives behind India's initiating the exercises. If one believes that India's intentions were benign, then the crisis becomes an interesting study of how the classic security dilemma works with chances to study the specifics of the action-reaction cycle in this part of the world. If one believes that India was either baiting Pakistan or sending it a message of resolve and military strength, then the study changes to one of how countries develop such strategies, believe they can control the outcomes, and de-escalate if the process gets out of control.

Despite the absence of formal studies, participants and analysts in each country have drawn different lessons from the crisis. For Pakistan, the entire affair reinforced its mistrust of India and its intentions. Specifically, it supported the theory that at least some key figures in Indian politics and the military continue to believe in a military solution to that country's problems with Pakistan. In other words, India's strategy of 1971 – intervening and supporting separatist/independence movements in parts of Pakistan – was successful and should be considered for use again. The outcome, for Pakistan, is viewed widely as a victory, and the countermove in the direc-

tion of the Indian Punjab is seen as decisive in deterring New Delhi from attacking into the Sindh.⁴⁴ For India, the Brasstacks crisis showed that at least in some situations India was still militarily vulnerable to Pakistan, which many policy makers had thought was a dead issue after it was “solved” in 1971. Both political and military hierarchies were genuinely disturbed by the crisis, and it is believed that they therefore approached the next crisis, in 1990, more cautiously. They also may have begun to think that conventional war as a method of competition was getting too dangerous, not because of escalation to the nuclear level but because of the combination of geographic vulnerabilities and domestic political problems. Finally, for India, Brasstacks was something of an embarrassment to the civilian leadership as it was led along by the military into a crisis that got quickly out of hand.

Issues

When the problem is considered from a non-participant's the point of view, a number of issues arise that are useful to consider for preventing future crises or managing them if prevention fails. First, the general view of the other side in the crisis was highly negative, which colored readings of intentions and led to assuming the worst about any capabilities and moves. As the crisis evolved, each side read the other's defensive moves as being designed to enhance its opportunities for offensive action. Second, in a different version of misperceptions than merely assuming the worst about the adversary, the Indian decision makers consistently discounted the effect their moves and statements were having on Pakistan. Third, while intelligence was fairly plentiful on both sides, it was not timely and often it was dis-

counted or not believed, owing to preconceived notions about intentions. When information was exchanged by the two sides, it was often inaccurate or sketchy, feeding worst-case scenarios and suspicions.⁴⁵ Fourth, there was little outside intervention in the crisis, with key actors like the United States playing only minimal go-between roles. Exactly why this was the case remains somewhat unclear, especially given the extensive involvement of the United States, the Soviet Union, and China in previous crises. One possibility is that the superpowers and China did not realize that there was a crisis until it was well on the way to being resolved. Finally, decision making in the lead-up to and during the crisis had considerable failures, particularly on the Indian side. Analysts have identified these failures as being of two types: overcentralization of decision making and lack of policy coordination between branches of government. Another conclusion from the crisis, according to Dennis Hagerty, was that it drove both Pakistan and India to increase the pace of their respective nuclear weapons development.⁴⁶

The 1990 Crisis

The 1990 crisis between Pakistan and India saw the revival of Kashmir as a central point of dispute. Most analysts date the beginning of the crisis from the kidnapping of the daughter of the new Indian home minister, a Kashmiri, Mufti Mohammed Sayeed. Sayeed's appointment by newly elected Prime Minister V.P. Singh was meant to follow up on campaign promises for national healing.⁴⁷ After negotiations for her release, the simmering insurgency in Kashmir exploded in January 1990. Violence skyrocketed and the economy and daily life, particularly in the Vale of Kashmir, became almost impossible. India responded by impos-

ing presidential rule from New Delhi and sending a former governor with a hardline reputation to crack down. Pakistan took advantage of the situation, with the Inter-Services Intelligence Agency (ISI), army, and other organizations providing increased material support to the insurgents, opening more training camps in Azad Kashmir, and whipping up the rhetoric. Indian analysts claim that Pakistan had been providing support for, and in fact actively fomented, the insurgency for years. Some argue that the outbreak of high-level violence in Kashmir in 1990 was a direct result of a Pakistani strategy to pursue low-intensity conflict against India under the shield of recently weaponized nuclear capabilities.⁴⁸ Others argue that it was inevitable given the growing alienation of the Kashmiris from the rest of India and indeed from their own governing bodies. The nuclear aspect of the crisis is discussed in more detail below.

Had the issue remained a struggle between insurgents in Kashmir, whether indigenous or infiltrated, and Indian paramilitary and army forces, it would not have qualified as an international crisis. In fact, early moves by the prime ministers on both sides indicated a desire to keep the crisis limited. Unfortunately, neither prime minister was politically strong, and both were pressured into upping the ante both rhetorically and militarily. The Pakistani opposition began calling for a holy war, and one party called for Pakistan to develop nuclear weapons to defend itself against India. Both to keep ahead of popular opinion and to follow the military lead, Pakistani prime minister Benazir Bhutto called for Kashmiri self-determination.

At this early point in the crisis, nuclear weapons possibly came into play. In a January 21 meeting in New Delhi between the

Pakistani foreign minister, Yakub Khan, and his Indian counterpart Inder K. Gujral, Khan made a statement about war clouds gathering that some in New Delhi took to be a veiled nuclear threat. When confronted later in the day by Indian officials, Khan apparently claimed that he had been misinterpreted.⁴⁹ Some analysts point to the fact that Khan was closely linked to the military and was given a mandate to deliver a harsh message. The same analysts note that Khan may, however, have exceeded his mandate and delivered an actual threat.⁵⁰ Thereafter the rhetoric continued to escalate and both sides began making conventional military preparations in areas outside of Kashmir.

In many ways, the military moves that escalated the crisis were similar to those in the Brasstacks crisis of 1987. Certainly that crisis was on the minds of all of the key participants in both countries in 1990 and in the mind of the most critical international observer, the United States. The Pakistanis conducted a conventional military exercise in late 1989 called Zarb-I-Momin. It was reminiscent of India's Brasstacks exercise and was meant by Pakistani army chief General Beg to send a dissuasive message to India about meddling with Pakistan. After the exercise ended the major units, including an armored division and a squadron of Apache helicopters, stayed in the field. India responded by moving some units to defensive positions along the border and keeping some tank units at the Mahajan firing range in Rajasthan, the scene of Brasstacks III and IV. Fearing that the increased insurgent activity in Kashmir might be replicated by Pakistan in the Indian Punjab, New Delhi sent more border security and army infantry units into that region. In an attempt to defuse tensions, American military attachés traveled to the border

region in February 1990 and confirmed that neither army had significant strike forces in positions necessary for offensive operations. These reassurances did not work, and each side continued both to fear the worst and to prepare to take advantage of the situation should the other move precipitously.

By April, the conventional situation was as follows. In Kashmir, India had deployed two hundred thousand army and paramilitary forces, supplemented by seventeen thousand local police, to deal with the insurgency. On the Pakistan side of the border of Kashmir, in Azad Kashmir, Pakistan had deployed one hundred thousand troops. Indian and Pakistani troops were in very close contact across the line of control. Farther south in Punjab, both sides had infantry units deployed in their forward defensive positions, but major armor and artillery units were still in their cantonments some distance from the border. Finally, in the Lahore sector, India had deployed two infantry divisions, in penny packets, near the border to help stop potential infiltration. The Indian concern that prompted the last deployment was that terrorists could infiltrate Punjab, sabotage key lines of communication, and thereby clear the way for a Pakistani army invasion.⁵¹ In sum, both sides were actually restraining themselves, keeping their mobile units capable of offensive operations in their cantonments, but they were making significant defensive preparations against an expected move by the other side.

Attempts to Prevent War and De-escalate the Crisis

Attempts by Washington and Moscow to coax the two sides into a joint statement on restraint failed, and in mid-May the now-famous trip to the region by U.S. Deputy National Secu-

rity Advisor Robert Gates took place. What prompted the trip is still a matter of debate, but most of the participants say that the United States had become increasingly worried that the posturing would spiral into a large conventional war that could then, down the line, lead to a possible nuclear exchange.⁵² However, two journalistic accounts claim that the Gates mission was prompted by intelligence reports that painted a picture of Pakistan preparing to assemble and use its nuclear weapons.⁵³

The complete record remains classified, and not all of the key participants have chosen to go on the record to clarify the issue. However, a number of elements appear to have been operating that led to varying accounts and differing interpretations. First, as always, the intelligence was ambiguous and was interpreted differently by various agencies in the U.S. government. Some of Pakistan's moves detected at the time could have been in preparation for readying a nuclear weapon for use, or they could have been precautions against a possible Indian conventional strike on Pakistani nuclear facilities. Islamabad could also have been trying to send a signal to the United States that it would consider using its nuclear weapons in extremis, hoping that Washington would intervene and defuse the crisis. If that was the case, it was a risky gamble. Second, a number of activities related to Pakistan's nuclear weapons programs appear to have been going on at once. Sometime during the crisis, it appears that Pakistan restarted elements of its weapons program that had been frozen at the insistence of the United States.⁵⁴ This may not necessarily have meant that Pakistan was assembling a nuclear weapon. It could have merely meant that it was restarting enrichment facilities. This could have led to some degree of confusion both in intelligence circles and among policy makers.

Gates visited key officials in Islamabad first and told them that Pakistan would lose any conventional war with India. He also outlined for Pakistan the political and diplomatic downsides of a war. Before Gates left for New Delhi, he was told by the Pakistani foreign minister that Islamabad would close training camps for the insurgents located in Azad Kashmir.⁵⁵ This promise was later denied by the Pakistanis. Gates was well received in New Delhi, and the conversation there apparently focused on the conventional issue and the insurgency in Kashmir with no mention of nuclear weapons.⁵⁶ Gates also provided both sides with a list of possible confidence-building measures (CBMs) that could be useful in de-escalating the crisis. Had the United States believed that there was a possibility of Pakistan's using nuclear weapons in the near term, presumably Gates would have mentioned it. This is evident by the role that the United States took in the preemption scares in the 1980s, promising to provide information if a strike seemed imminent.

Gates' trip was not viewed as a success upon its completion. In fact it took several weeks for the two sides to take visible steps to defuse the crisis. These included India's announcing that its armored units, presumably those at the Mahajan firing range, had been withdrawn. India also proposed a list of CBMs, based on those received from Gates that were largely agreed to about a year later.⁵⁷

Lessons

For India, the 1990 crisis provided further evidence that Pakistan was fomenting and supporting the insurgency in Kashmir. New Delhi believed that in the late 1970s, Pakistan realized that it could not take Kashmir by force using conventional arms, so it began a strat-

egy of terrorism and secession in both Punjab and Kashmir, with the hope that the latter at least would eventually be split off from India. In support of this strategy, India believes, Pakistan developed nuclear weapons under the umbrella of which it could carry out the insurgencies without fear of Indian escalation. In fact, many in New Delhi have concluded that Pakistan achieved a nuclear weapons capability in 1987, leading to an increase in violence (due to infiltrations) in Punjab and Kashmir in the 1988-90 timeframe.⁵⁸ Because the early 1990 violence in Kashmir exploded so quickly into an international crisis, New Delhi did not review its own governing strategy in the region or have cause to believe that it was at all to blame for the violence. India did not believe that Pakistan would actually use nuclear weapons but rather that it would bluster about them in order to bring in the international community to either rescue it or freeze in place any advantages it had gained during its incursions into Indian-controlled Kashmir.⁵⁹

For Pakistan, 1990 was a crisis with mixed lessons. On the one hand, Kashmiris took up the insurgence cause with a vengeance, something they had not done in 1965, 1971, or even throughout the 1980s when support from the ISI was on direct offer. This encouraged those in Pakistan who thought that a strategy of “bleeding India from a thousand cuts” might have promising prospects. In addition, General Beg succeeded in essentially pulling a Brasstacks on India by staging his own large exercise that got New Delhi to react nervously. On the other hand, the Gates mission, with its stern message that Pakistan could not win and that the United States would not help it, showed that the strategic partnership with Washington was truly over, and Pakistan would have to confront India in the future on

its own. This probably enhanced the belief in Islamabad that having a relatively robust nuclear capability was going to be necessary. The U.S. detection of Pakistan’s resumption of certain activities in its nuclear program, such as enrichment of uranium above a prohibited level, provides evidence of this belief.

Issues

Unlike 1965, Siachen, or 1987, this crisis was not set off by specific actions of one or the other government. It resulted from the explosion of insurgency in Kashmir, which Islamabad certainly desired but did not cause directly or all on its own. The violence took both governments by surprise.⁶⁰ This upsurge in violence did not have to lead to an extended and serious crisis, but the domestic weakness of both regimes helped to fuel the escalation. Both governments became locked into positions early on and were too weak to back down without outside intervention.⁶¹ Neither side wanted war, but each found it difficult to take the concrete steps necessary to back down. This, coupled with the rhetoric that each side felt was necessary for domestic political reasons, escalated the crisis. The fact that neither side necessarily wanted war also rules out using this crisis as a test of whether nuclear deterrence works on the subcontinent.

Unlike Brasstacks, the issue was not a lack or breakdown of communication. During this crisis, communication was fairly regular between the two sides, and as noted, included direct meetings early on that fueled rather than dampened the tensions. However, as in previous crises and wars, the information provided by each side to the other was completely mistrusted. Each side’s own intelligence was also not of high quality, and analysts on each side assumed the worst of the other side. The Unit-

ed States used fairly creative diplomacy in an attempt to help solve the information and intelligence problem, providing reports from its military attachés to each side. However, these reports were not sufficiently persuasive to move either India or Pakistan from its position. Throughout this crisis, it is likely that the United States had both a clearer and a more clear-eyed view of the actions of each side than they did of one another.

As noted above, this was not a nuclear crisis. Pakistan did not directly threaten India with nuclear weapons, either during Khan's initial trip or later through signaling actions. If Pakistan did signal to the United States its seriousness through some movement of its nuclear assets, it was a clumsy try, and it easily could have been either missed by Washington or seen and quickly misinterpreted by New Delhi, leading to an even more serious crisis.

Kargil 1999

From February to May 1999, between six hundred and seven hundred fighters from Pakistan infiltrated into Indian Kashmir in the Kargil and Dras sectors. These forces occupied key high points from which they could threaten Highway 1A, a major supply route for Indian forces on the Siachen glacier. These high points were usually contested during the summer, but the inhospitable nature of the geography meant that they traditionally remained unoccupied in the winter months. The infiltrators took advantage of this fact and occupied abandoned positions. The identity of these forces remains a hotly contested point between India and Pakistan, with the former claiming they were Pakistani regular troops and the latter claiming that they were Kashmiri freedom fighters. The truth is closer to New Delhi's version, as the operation appears to have been planned by

the Pakistani military and intelligence services, and the troops were a mix of Kashmiris, Pakistani regular forces, and mujihadeen fighters from Afghanistan (some of these being Saudis and others who originally came to the region to fight the Soviets in Afghanistan).

In addition to the military significance of the occupied positions, the incursion had political significance for three reasons. First, despite regular cross-border activity by insurgents and shelling by both sides across the line of control, this represented the first time since the 1965 war that portions of Indian Kashmir were occupied by Pakistani, or Pakistani-allied, troops. Second, the planning, infiltration, and occupation occurred when the prime ministers of the two countries were meeting in Lahore in February 1999 in an attempt to improve relations between the countries. Finally, Indian prime minister Vajpayee and his BJP-led governing coalition had lost a vote of confidence and were due to face elections in September.

Having been taken by surprise, the Indian military reacted as swiftly as it could, considering the operational difficulties associated with the geography of the region. It moved army forces into the region and on May 26 began using fixed-wing aircraft and helicopters to strike at the encampments. In addition, both India and Pakistan used artillery to shell one another across the line of control and, in India's case, to interdict supply lines to the infiltrators from Pakistan. India's use of fixed-wing aircraft drew harsh verbal responses from Pakistan, but both sides refrained from having their air forces cross the line of control. India lost two jets and one helicopter to surface-to-air weapons, but no air-to-air clashes took place. In a repeat of the conflicts of 1987 and 1990, both sides alerted forces opposite one another farther south, and armored strike forces on both

sides were activated and elements were moved to defensive positions near the border in the Rajasthan Desert region.

Attempts to End the Fighting and De-escalate the Crisis

Discussions between the two sides, including telephone conversations between the prime ministers and a visit by Pakistani foreign minister Aziz in mid-June, failed to resolve the crisis. International efforts to lower tensions did not meet with much success either. UN secretary general Kofi Annan's offer to send a special envoy to both capitals was rejected by New Delhi, which argued that any delegation should go only to Islamabad since Pakistan was the source of the problem. American calls for restraint to both sides went unanswered although India did keep to its side of the line of control with its air attacks and it did not send ground troops across the line of control. A letter sent by Prime Minister Vajpayee to President Clinton in mid-June spurred Washington to put more pressure on Pakistan to withdraw the fighters. In the letter, India warned that it might have to cross the line of control if Pakistan did not back down.⁶²

This warning, combined with the moves by both sides to activate larger conventional formations farther south, apparently led Washington to worry about escalation to a larger conventional war. As a result, the United States increased pressure on Pakistan. This pressure included a G-8 statement calling for an end to armed intrusion (although it did not name Pakistan directly) and a visit from the U.S. commander of Central Command, General Anthony Zinni, to Pakistan to tell the army and the government to pull back. After seeing few concrete results from the Zinni trip, the U.S. president called Prime Minister Sharif

on July 3 to follow up. Sharif asked for a meeting in Washington, and the next day a joint statement was issued saying that concrete steps would be taken to reduce tensions. The United States elaborated on this by saying that Pakistan would pull back.⁶³

The opposition, the military, and various jihadi groups roundly criticized Sharif for backing down. However, the then-chief of the army, General Musharraf, stated at the time that he was comfortable with the deal that the prime minister had made in Washington. As a practical matter, a pullback was at that point no longer the issue as India had succeeded in killing, capturing, or pushing out almost all of the troops that had come into the Kargil sector in the spring. Later, Prime Minister Sharif's attempt to distance himself from responsibility for the crisis and essentially throw the blame in the military led to his downfall. In October 1999, General Musharraf overthrew Sharif and took control of the Pakistani government.

Lessons

Unlike some previous wars and crises, the Indian government commissioned a formal review and lessons-learned study of the Kargil crisis. Interestingly, most of the lessons had to do with the internal Indian management of the crisis. The broadest lesson was that India must modernize its national security decision-making system to enable it to anticipate and deal with crises better, whether they stem from Pakistan or elsewhere. In addition to some minor recommendations concerning years of service in the military and paramilitary forces, the most sweeping organizational change was to recommend that the entire national security management and decision-making structure be studied and reorganized with an eye to creating

a national defense headquarters and a position of chief of defense staff.⁶⁴ Finally, the review committee recommended that a full-time position of national security advisor be established along with a separate staff from the cabinet office.

In the intelligence realm, the committee recommended the following changes. First, India must vastly improve its intelligence collection capabilities, particularly in the area of satellite imagery and unmanned aerial vehicles (UAVs). Second, organizational changes should be considered to bring signals intelligence into a single organization and to improve coordination and sharing of intelligence brought in by various intelligence branches. In August 2001, the Indian government finally seemed to be moving toward adopting the committee's recommendations on this score, announcing the creation, beginning in the next fiscal year, of a centralized defense intelligence agency. Lastly in the intelligence field, the committee recommended better "red teaming" and analysis of intentions of possible adversaries, noting as a rationale for the recommendation that Pakistan's actions in Kargil were not rational.⁶⁵

In terms of nuclear lessons, the committee basically commended India's decision, taken over years by various prime ministers, to slowly acquire a nuclear weapons capability. In order to strengthen deterrence and further point the finger at Pakistan, the committee recommended the publication of a white paper detailing India's nuclear developments, showing its broad base of support and public rationale. In addition, the white paper would describe Pakistan's continuing nuclear program and the sources of its technology.⁶⁶

Given the political situation in Pakistan since the 1999 events in Kargil, no public report has been issued on the crisis and obvi-

ously public debate and scholarly review are extremely limited. However, discussions with various officials and analysts in late 2000 revealed a basic consensus that Kargil was a tactical success militarily, but a strategic disaster politically.⁶⁷ It was seen as enabling India to take the high ground on Kashmir in the eyes of global public opinion, and New Delhi was able to paint Islamabad both as the villain in this region and as an irresponsible party in a region with newly overt nuclear capabilities. Despite this assessment, many Pakistan-based analysts believe that Pakistan cannot or should not give up the insurgency strategy in the region as this is seen as the only current point of leverage that Pakistan has regarding India. There was, however, vigorous debate over the implications of Kargil at the time although some of this has been stifled by the ascent of the military to a position of formal control of the government. Indeed, the failure of Indian aircraft to cross the line of control and India's restraint in moving forces outside of Kashmir may have reinforced the view in Pakistan that a strategy of engaging in low-intensity conflict under its nuclear umbrella was a successful one militarily. Finally, however, Kargil and the coup afterwards resulted in international isolation for Pakistan, particularly from Washington. Almost all interlocutors in Pakistan noted the need to re-engage with the United States and to ensure that Washington does not "tilt" too far toward New Delhi. This isolation ended in the fall of 2001 as a result of Washington's need for Islamabad's cooperation in the war in Afghanistan, but the risk of again becoming a pariah remains if Pakistan attempts another Kargil.

Issues

The nuclear dimension of the Kargil conflict was threefold. First, the open possession of

nuclear weapons by both sides did not deter conflict, at least low-intensity conflict. In fact, many Indian analysts posit that Pakistan attempted the operation under the cover its nuclear umbrella, assuming that nuclear deterrence would keep India from escalating to a broader conventional war.⁶⁸ Indian military officials have noted that the Indian air force did not cross the line of control because they deemed that to be one of Pakistan's "red lines" that might cause it to escalate to the nuclear level.⁶⁹ In support of this notion, the BJP often called for hot pursuit of insurgents across the line of control when it was in opposition, but the BJP-led governing coalition resisted such temptations. This could be the moderating influence of being in power or the deterrent effect of Pakistan's weaponized nuclear capabilities.

Second, the involvement of third parties to calm the crisis differed from previous crises. At the outset of the Kargil crisis, Pakistan made statements about the possibility for the crisis to escalate to conventional and then nuclear war in hopes of bringing about outside intervention to freeze the situation while Islamabad still held territory in Indian Kashmir. At the same time, in keeping with past practice, India rebuffed outside efforts to intervene. As the conflict went on and it proved to be difficult to oust the insurgents, India brought in the United States. Seeing that it was winning the military war and the propaganda war, India at that point was eager to have Washington pressure Islamabad and did so by hinting at escalation of its own, which may have raised fears of a broader war. Finally, certain Indian and Pakistani reports indicate that both sides loaded warheads on missiles during the crisis.⁷⁰ This is impossible to verify with open sources, but the specter of nuclear weap-

ons use obviously continues to worry both sides.

Cross-Crisis Patterns and Issues

Two major themes emerge from the review of past wars and crises in terms of causes that could significantly influence future stability in the region. The 1971 war was caused by a combination of domestic politics (the result of Pakistan's geographic division into East Pakistan and West Pakistan at that time), the Pakistani government's unwillingness to resolve the political issue peacefully and in accordance with democratic principles, and, a mix, on India's part, of opportunism and fear of refugees from East Pakistan. For all other wars and crises, one of two factors contributed to the cause of the conflict. The first, an obvious one, is the unresolved Kashmir question. It has been central in 1947, 1965, 1984 (Siachen), 1990, and Kargil in 1999, and it was a point of vulnerability that worried Indian planners during Brasstacks. Again, while not the sole cause of all crises or wars, it remains a point of contention that has international and domestic political implications. Other situations like Siachen help to bolster domestic saliency in both countries and keep it at the center of the political debate. Kashmir's geopolitical importance to both India and Pakistan will not change even in the medium term, and its importance to the political legitimacy of each state will remain an issue. Without at least the beginning of a process to resolve the issue, involving both bilateral and unilateral adjustments to national goals and expectations, long-term stability between the two is impossible.

The second major theme underlying the causes of wars and crises is the constantly changing military equation, on both the con-

ventional and nuclear sides, that has led to perceptions of vulnerability and opportunity that in turn have triggered actions and reactions. In 1965, Pakistan believed that India's domestic weakness opened a window of opportunity to influence the Kashmir situation. It also believed that that window would close soon because of India's defense buildup. Again, the preemption scares in the early 1980s were triggered by either Pakistani concern about vulnerability at that time or Indian perception that it may have a window of opportunity to strike Pakistani facilities before Islamabad's nuclear infrastructure became too large or too dispersed. In the 1987 Brasstacks crisis, Indian officials might have believed that they should seek to "solve" the Pakistan issue before Islamabad weaponized its nuclear capabilities. Also in 1987, Pakistan believed that India might actually team up with the Soviet Union for an attack on its nuclear facilities. The 1990 war, while triggered by domestic turmoil in Kashmir, may have been the first instance of Pakistan attempting to implement a low-intensity conflict strategy against India under the cover of its newly weaponized nuclear capabilities. Similarly, there has been much speculation, particularly in India, that Kargil 1999 represented yet another attempt to put this strategy into action, again after a perceived change in the strategic equation due to the moving of Pakistan's nuclear capabilities into the open with the 1998 tests.

In sum, both of these issues (Kashmir and the military balance) can be expected to continue to trigger crises and possibly wars through 2015. Kashmir is unlikely to be resolved any time soon, and the continuing shifting of the strategic equation will create perceptions of strategic opportunities or vulnerabilities that will tempt politicians and

worry military planners on both sides. Now that the nuclear capabilities of each side are overt, the possibility for additional perceived changes in the strategic balance will be relatively greater as development, procurement, and deployment of delivery systems, warheads, and associated infrastructure will more often be the subject of public announcements and debate or be more easily subject to discovery by intelligence capabilities.

Patterns of Escalation

One prominent pattern of escalation across several wars and crises is that of both sides moving ground forces to areas near the border where the other has geographic vulnerabilities. The moves were both defensive, because of perceptions of their own vulnerabilities, and offensive, because each side also knew of the other's geographic vulnerabilities. This was obvious in 1947, 1987, and 1990. Even in 1965 when the war was initially focused in Kashmir, Pakistan moved armored forces in from the south, striking at the narrow area through which India supplied its forces in Kashmir. In response, India invaded farther south with its armored forces, driving toward Lahore and threatening to cut Pakistan in two at its narrowest point. These geographic realities are not going to change, so forward deployment remains a likely move for each side during any future crisis – threatening the other's vulnerable points and moving its own forces into place to defend against a possible deep ground attack.

Another pattern of escalation involved bringing in outside powers in an attempt to change the balance of forces and prevail in the confrontation. This tactic was used by Pakistan in 1965 with China, in 1971 with China and the United States, and possibly in 1990 through the use of nuclear signaling to bring in the United States. Pakistan also appealed

for external intervention by the United States during the preemption scares to deter attacks against its facilities. In 1999, any hopes by Pakistan that engaging the United States would allow it to prevail were crushed by the messages delivered by General Zinni and eventually President Clinton. For the most part, India, being the dominant power, has sought external intervention less frequently, except in response to Pakistan's bringing in outside help. External powers will play a role and could potentially be brought in by one side or the other for the purposes of deterrence, escalation or, as will be discussed below, de-escalation.

Crisis Management, Communication, and De-escalation

In almost every war and crisis, India and Pakistan eventually negotiated directly to end the conflict, at times employing the good offices of a superpower. In fact, during most of the crises and wars, the two sides communicated through public statements, the media, hotlines, or meetings of senior government officials. In 1965, it does not appear that extensive communication occurred during the fighting. In 1971, as noted above, international intervention was critical to open communications because both sides refused to communicate or negotiate directly. After 1971, communication does not appear to have been a problem. With the exception of the one period during Brasstacks when both sides appeared to have chosen not to communicate, it appears that channels existed and were used, although not always with the intent of de-escalating or solving the issue at hand. The physical ability to communicate does not appear to have ever been a problem.

Not all communication during the crises was verbal. Much occurred through each side's observations and interpretations of the oppo-

nent's military moves. Throughout most of the crises, intelligence information appears to have been plentiful but not necessarily of the highest quality. Because of technological limitations, intelligence was often derived from human sources and some signals interceptions. Neither state to date has imagery satellites, and airborne reconnaissance is limited by both technology and the other side's air defenses to shallow looks into the other's territory. Intelligence appears to have been most accurate when it involved identifying large ground maneuver units, although for a time in 1987, India lost track of a multi-division Pakistani force. This type of intelligence failure has not been unusual (India again failed to detect infiltrators into Kargil in 1999) and can lead to strategic surprise that in turn could lead to precipitous actions such as escalation.

Regardless of the presence or quality of information available, one consistent pattern throughout previous wars and crises was misinterpretation of that intelligence. Almost without fail, analysts on each side would ascribe the most negative motives to the other, resulting in a worst-case interpretation of each and every piece of available intelligence. This pattern of behavior does not bode well for future crises when, in addition to concerns about large ground units and conventional aircraft located at known airbases, intelligence gathering and analysis will be focused on small, highly mobile, and difficult to detect missile systems.

As noted above, at times outside actors were invited in for the purposes of tipping the balance of forces to one side or the other. However, more often, states and at times the UN intervened for purposes of calming the situation. The success of outside intervention in damping down crises or ending wars has been

mixed. In 1965, the fighting ground to a halt, leading both sides to accept a cease-fire. In 1971, outside intervention was critical for ending the war since neither side was willing to communicate, let alone negotiate. Both the United States and the Soviet Union indicated a willingness to become involved in the preemption scares to provide support for their clients. While Brasstacks was solved directly by India and Pakistan without outside intervention, in 1990 the role of the United States was critical in ending the fighting. Washington provided information through attaché reports on the forces near the border, and more importantly it warned both sides, but particularly Pakistan, against escalating or continuing to push the other side. In this case, the United States essentially withdrew its support from Pakistan, letting Islamabad know that it was on its own if it continued fighting. In the future, the role for the United States could become more extensive, for example if the U.S. were to develop a boost-phase missile interception capability that could intercept missiles launched by India or Pakistan.

For future crises, therefore, the issues in this area are many. First, the quality of communication between India and Pakistan matters a great deal and should be significantly improved. Second, intelligence gathering should be enhanced on both sides, with multiple source types enhancing the picture with which analysts and decision makers have to work. However, regardless of the quality and quantity of information, flawed interpretation will continue to be an issue, and one not easily resolved. Finally, outside actors will play roles in future crises, often as providers of information or good offices, but also as catalysts or as interested parties preferring to see one side or the other come out on top. How the role of out-

side powers can be refined so that it can best serve to prevent crises or de-escalate ones that already have begun is an area for exploration, particularly considering the types of crises that could occur in the future involving significantly more advanced nuclear arsenals.

Role of Nuclear Weapons

The wars and crises between Pakistan and India until the run-up to the 1990 conflict all had some influence on the issue of nuclear weapons. Each war and crisis led to consideration and reconsideration of the nuclear option on New Delhi and Islamabad. In Pakistan's case, its loss in the 1971 war led directly to the start of its nuclear weapons program. India moved more steadily towards exercising the nuclear weapons option, but each war and crisis renewed the debate and saw India's scientists accelerate their work in preparation for the political signal to cross the test line in 1974 and again in 1998. As noted in the summary of the 1990 crisis, this crisis may indeed have been the first actual nuclear crisis between India and Pakistan. All this may have meant was that both sides had weaponized their nuclear capabilities. However, it is possible that Pakistan engaged in nuclear threats and signaling to both India and the United States in that crisis, although again if it did, the signals were tremendously opaque. The Pakistani leadership may have decided in the late 1980s to engage in a low-intensity conflict strategy against India because it believed that its nuclear weapons would deter India from escalating. It is highly unlikely that the two sides were minutes away from a nuclear war as some journalistic accounts would have it. Similarly, Kargil was likely not a nuclear crisis in the sense that nuclear weapons were readied for use, but the

risk of the crisis gradually escalating to that point was present as it was in 1990.

However, both India and Pakistan have shown a keen awareness of the other side's nuclear capabilities, in development or actual, and have adopted strategies and adjusted tactics accordingly. Both however were reacting to covert nuclear capabilities and not to weaponized capabilities that may be activated in crises, put on alert, or otherwise be visible to intelligence. For example, mobile launchers may be moved out of casernes and dispersed to launching or hide locations. If either side ever develops a sea-based nuclear weapons capability, submarines or surface ships that serve as launch platforms may be sortied from naval bases. These actions may be part of plans to use the weapons, defensive moves intended to protect these assets, signals of resolve, signals of escalatory intent designed to elicit outside intervention, or some combination of all of these. These considerations will be significant in future crises, and will pose a stern challenge for both sides to learn how to react but not over-react to weaponized capabilities that are now openly in the arsenals of each side.

Lessons Learned

Finally, India and Pakistan have learned numerous strategic and tactical lessons from each of their wars and crises. For India, the lessons related to conventional war with Pakistan are twofold. India can defeat Pakistan in a conventional war, but it also remains vulnerable to Pakistani conventional forces because of a combination of geographic realities (in both Kashmir and the Punjab) and Pakistan's ability to exploit domestic unrest in India for its own ends. In terms of developing a nuclear weapons capability, it is not clear that any of the wars or crises with Pakistan necessarily were

the driving force behind India's acquisition of nuclear weapons, but the ongoing clashes with Pakistan have sparked debate on the issue and have often been used as a post-hoc justification for the program. Overall in terms of relations with Pakistan, the various wars and crises have reinforced India's belief that Pakistani intentions remain malign and that Islamabad's actions in Kashmir are tied directly to its concerns about Pakistan's legitimacy as a state. Moreover, Pakistan retains the capability to initiate crises in Kashmir. The crises in 1990 and 1999 have also demonstrated to India that low-intensity conflict is an ongoing problem and that its conventional superiority and nuclear weapons have so far been insufficient to deter the use of this type of strategy by Pakistan. However, India does not believe that this is an insurmountable problem and believes that this vulnerability can be removed through changes in military equipment and tactics and changes in crisis management and decision-making structures and processes in India. Finally, India has learned several lessons about outside actors and their roles in the ongoing India-Pakistan relationship. First, its belief about the threat China represents to India's security – either directly or through Pakistan as a proxy – has fluctuated over time. Second, India believes that Pakistan, as the weaker of the two states, needs outside intervention more than India does in times of crisis. Finally, while the United States has been a fickle partner over time, India has at times found it useful to have an outside patron either to provide military technology or to face down a threat from another great power.

Pakistan's lessons, not surprisingly, are very different from those of India. On the conventional military side, Pakistan has increasingly seen that India is both capable and

willing to use its conventional forces to defeat Pakistan in limited wars. Pakistan also now knows that India has the capability, and possibly even the desire, to use its conventional superiority to defeat Pakistan in a general war and impose upon it broader settlement terms regarding Kashmir and other issues in dispute. Directly because of this concern about not just losing limited wars but of having Pakistan's national survival threatened by India, Islamabad decided that it had to develop a nuclear weapons capability. The development of this capability led to a belief, reinforced by the conflicts of 1990 and 1999, that Pakistan may be able to pursue a new strategy in its competition with India (particularly over the fate of Kashmir), one in which it uses low-intensity conflict while counting on its nuclear capabilities to deter India from escalating to the conventional or nuclear levels. Finally, Pakistan has learned that outside intervention by superpowers or great powers remains a requirement for success in its competition with India. While it has counted on China for WMD-related technology, Islamabad has learned that China has limited capability to threaten India directly and effectively. Pakistan continues to believe that it is essential to court the United States because of its status globally and in South Asia, and after 1999, wishes to re-engage with Washington and keep it from tilting too far in India's favor.

As can be seen above, these lessons are often diametrically opposed and not necessarily conducive to stability, particularly in future crises. Most of the lessons, as evidenced most recently by the official Kargil report commissioned by the Indian government, concentrated (not surprisingly) on how to do better in the next possible war or crisis rather than how to avoid crises in the first place or de-escalate

them once they have begun. After all, most of the wars and crises between India and Pakistan were intentional, that is one side or the other was attempting to use force, or the threat of it, to achieve political aims. Only the 1987 Brasstacks crisis (depending on one's interpretation of India's initial motives in holding the exercise) appears to have been a case where neither side had any intention of threatening or using force for political gains.

Looking into the future, it is necessary to think through how these various patterns of action and interaction will play out in crises or wars and how they may produce different results because of the different nuclear force strategies, doctrines, and force structures that India and Pakistan might adopt over time. This is the task of chapter 4, attempting to apply this region-specific information to future crisis models in an effort to identify the most dangerous situations and points where escalation may occur.

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Future Crises and Escalation Potential

This chapter builds on the analysis contained in chapter 2 about potential future doctrines and force structures as well as the analyses and comparisons set forth in chapter 3 of past wars and crises. We now posit a spectrum of future crises and project how escalation to the nuclear level could occur in those situations. This is done to gain a better understanding of how specific force structure and doctrine choices on the part of India and Pakistan could interact with likely crisis situations to produce destabilizing results, namely escalation to the nuclear level. This then provides a starting point for developing remedial measures that could decrease the probability of escalation – stabilizing measures – in chapter 5.

Deterrence and other Failures in Past Wars and Crises

As noted in chapter 3, India and Pakistan have had numerous failures along the conflict spectrum that have either led to wars, caused those wars to be longer and bloodier than otherwise would have been the case, and/or led to unsatisfactory outcomes that paved the way for future clashes. All of these failures have implications for the future as it is not clear that either side has learned sufficiently from them to avoid repeating them. As suggested in chapter 3, the lessons learned from past conflicts by each side focus more on how to prevail in future conflicts rather than how to avoid or damp down the levels of violence in future flare-ups.

Past deterrence failures are the most crucial starting point in understanding how the two sides have found themselves at war. Most important, the deep-seated hostilities between India and Pakistan have underscored the inherent fragility of strategies based principally on deterrence. Writing about nuclear deterrence, Keith Payne concludes:

Deterrence policies cannot succeed by design when basic ingredients as defined in deterrence theory are missing.... Even the careful manipulation of nuclear threats... cannot “ensure” deterrence policies against the possibility of misperception when the deterrer’s policy is poorly informed, when the contestants are operating outside the deterrence theory assumption of well-informed rationality, or when the challenger is simply so highly motivated that it will rationally and knowingly accept tremendous risks in pursuit of its goal.¹

Although the cases examined in chapter 3 had as their basis conventional forces (with

nuclear forces being at least theoretically part of the equation since 1974), Payne’s analysis addresses similar outcomes. In short, the potential for deterrence failure remains substantial even if both sides have nuclear weapons if we base our analysis of the conditions for success or failure on the conditions proposed by Payne. As seen in the survey of crises and wars in chapter 3, the strategic competition between India and Pakistan matches virtually perfectly with these prescriptions for deterrence failure. Each side has persistently misinterpreted the other’s political signals. Both have also misread each other’s level of resolve. India and Pakistan often have had flawed assessments of the existing situation or anticipated shifts in the military balance. They have either exaggerated their own capabilities or underestimated those of the opponent. A pessimistic outlook for the future, particularly on the part of Pakistan, has led it to foresee and fear the closing of a crucial window of opportunity. In turn this has precipitated risky behavior to halt or reverse the perceived trend. These elements have in their turn caused the deterrence mechanism to fail, leading to war. The clearest example of conventional deterrence failure was 1965, and the 1999 Kargil episode provides evidence that both conventional superiority and possession of nuclear weapons are not sufficient to deter low-intensity conflict, providing support for Glenn Snyder’s “stability-instability” paradox whereby nuclear weapons eliminate the possibility for all-out wars between opponents but raise the possibility of low-intensity conflict or conventional conflict in non-strategic areas.

On those occasions when either deterrence has failed or both sides have become engaged in a crisis short of war, both have demonstrated a persistent inability – either deliberate or

inadvertent – to manage the resulting crisis or conflict. Crisis management has internal and external dimensions. First, a complex process of internal deliberations must proceed to determine options and responses. In the past, this has often rested on individual leaders, who sometimes failed to heed prudent advice or simply miscalculated. The results have often been disastrous (such as Nehru’s “forward policy” that triggered a massive Chinese response in 1962). More recently, both sides have institutionalized the process to prevent the overpersonalization of the decision-making mechanism during crises. For example, India is moving ahead with the Kargil-related changes to establish a the position of chief of defense staff, a centralized defense intelligence agency, and a full-time national security advisor – all steps to provide better information and advice to decision makers. However, these organizational changes and processes remain untested and underdeveloped and in fact may produce similar miscalculations or as poor judgment as would a single individual.

Second, how one side interprets the signals and responses of the other is integral to managing a crisis. Reading the signals correctly enables one party to avoid certain thresholds that might lead to escalation. Unfortunately, in the annals of conflict and crisis, adversaries have often lacked the proper understanding of each other’s intentions. Even when there are exchanges of information or signals, parties involved have misinterpreted their content. Moreover, the history of modern South Asia powerfully demonstrates that the probability for breakdown in communications remains dangerously high. In some cases, the lack of means to communicate or technical problems has worsened the crisis. This has become less of an issue given the various communications

measures adopted by the two sides. However, the intentional misuse of these channels of communications has at times obviated crisis management efforts and could do so in future crises. For example, the leadership may be compelled to send a stronger message – that could signal a willingness to escalate – than warranted for domestic consumption and propaganda purposes. On a related point, the leadership could fail – intentionally or inadvertently – to make use of critical channels of communications such as the hotline connecting the top leaderships. As Stephen Cohen has argued on a number of occasions, many CBMs in South Asia have evolved into “confidence-bursting”² measures because of abuse or misuse. Past failures have then led to expectations that the other side will not use CBMs or certain channels of communication designed for crisis management properly and therefore each side avoids their use altogether.

In the past when crises have threatened to spiral out of control, both sides have often underestimated or failed to control the rate of escalation. Indeed, the historical record tends to support the case that each side has taken actions or signaled intentions that have actually accelerated escalation. The persistent failure to control escalation stems from the classic security dilemma: the action of one side provokes a corresponding or even disproportionate reaction that in turn heightens the crisis. Both sides are locked in a vicious cycle. As noted in chapter 3, defense planners in India and Pakistan tend to base their decisions on worst-case and exaggerated assumptions. For example, military exercises or maneuvers are often perceived as a disguise or a precursor to a preemptive attack. This deep distrust often triggers unwarranted fears and anxieties that have in turn forced the other side to

engage in drastic defensive reactions that are viewed as offensive by the opponent. These flawed assumptions distort calculations of the probability for controlling or prevailing in the crisis or conflict. This has led to risk-taking behaviors that have proved disastrous.

When prolonged crises or conflicts reaches a stalemate, both sides have failed politically to de-escalate and resolve the situation. Domestic political pressures have often constrained the deliberations and actions of each government. These pressures have been evident both in democratic India and even in Pakistan at times when the country was ruled by the military. New Delhi and Islamabad often fear the domestic backlash that could result from public perceptions of government weakness or lack of resolve. This internal consideration has made backing down, concessions, or negotiations on realistic terms very difficult. As a result, each side has either been unwilling or unable to end the crisis or conflict. As a democracy, India is particularly vulnerable to domestic pressures.

There are also exogenous factors that have affected how crises have unfolded. At the broadest level, geopolitics have determined the calculations and actions of each state. During the Cold War, promises of support and intervention by the superpowers had major implications for the outcome of crises and wars. The strategic alignments with outside powers have sometimes created perceptions of advantage or security that enabled or encouraged one side or the other to take action. Yet, the end of the Cold War demonstrated that such support could quickly evaporate. As Pakistan's strategic importance receded in the early 1990s, American political and military backing waned. Islamabad was then forced to rely more on China for technical and political support. This was reversed yet again in the

fall of 2001 as Washington needed Islamabad to prosecute the war in Afghanistan against the al-Qaeda terrorist network and the ruling Taliban. Such broad realignments in the future will continue to be critical indicators of how one side will react to crisis. Indeed, in the wake of increased U.S. involvement in South Asia, the region could once again become the nexus of geostrategic competition between China, Russia, and the United States although some might argue that the latest heavy U.S. presence will dampen that tendency and promote stability. Most worrisome, flawed assumptions about external assistance – that may or may not be forthcoming – could precipitate risky behavior. Should the outside power fail to respond as anticipated, the risk taker could quickly find itself in trouble. Clearly, future intervention by a great power or the international community at large will affect all aspects of the conflict spectrum.

These same failures are likely to resurface in the future. Most vexing, the potential involvement of nuclear weapons use could fundamentally alter the contours of the conflict spectrum. The nuclear calculus could exacerbate the failures to prevent or dampen a crisis and ultimately lead to war or possibly a nuclear exchange. Some failures are common and apply to interactions between all states, while others are unique to the dynamics of the intense rivalry between India and Pakistan. Understanding how these failures apply to the emergence of overt nuclear capabilities in South Asia will be important for projecting future scenarios and examining possible crisis prevention measures. The use of a “western” model has naturally drawn protestations from both sides that the conflict spectrum does not fit neatly with the unique conditions of the competition. Some have argued that their common heritage and

mutual understanding from years of interaction would enable each side to avoid the brink of the precipice. Yet the history of the region clearly shows that both are and will still be subject and vulnerable to universal principles of conflict.

Not only will these past trends and failures likely persist in the future, but the addition of nuclear weaponry makes the avoidance of past failures during crisis an even more important and dangerous task for both sides and the international community. The following section presents a series of alternative futures that involve all the potential elements of instability examined above.

Before outlining specific scenarios and attempting to identify the key variables within them that lead to escalation, it is important to note two additional areas of concern now that India and Pakistan openly possess nuclear weapons. The first is the problem of the safety, security, and reliability of nuclear weapons in the Indian and Pakistani arsenals. These are serious concerns in peacetime, crisis, or war. However, they take on a heightened level of importance in crises or wars and may require different measures or procedures during those times. As noted earlier, Pakistan upgraded and changed its security procedures at the outset of the autumn 2001 war in Afghanistan, in part in response to international pressure and in part as a result of its own assessment of the threat. During crises, procedures and technologies developed to address safety and security concerns will be subjected to significant strains, raising the chances of theft or accidental or unauthorized detonation or launch. Since this study is focused primarily on crisis situations, stability, safety, security, and reliability issues will be touched upon primarily in the context of future wars or crises

and examined in terms of how they are uniquely stressed in those situations. On all of these issues, India and Pakistan face steep learning curves. In the United States and the Soviet Union policy makers, defense planners, scientists, and military operators worked at mastering these issues over two generations. The issues are so important that they are never considered “solved,” and the United States is constantly improving its technologies and procedures in these areas. At best, India has faced these issues for a generation and Pakistan for a little over a decade, but the nature and scope of the challenges are changing significantly as the two states move to weaponize their arsenals and then to deploy forces.

The safety of a nuclear weapon, meaning the ability to keep it from either detonating inadvertently or being involved in an accident that leads to a release of radioactivity, will be more difficult to ensure in times of crisis or war. First of all, in these situations, weapons may actually be assembled. As noted in chapter two, in the current and some future force postures, particularly for India, the weapons may not necessarily have the fissile material core mated with the conventional explosives and the rest of the bomb or warhead. This raises a question that might not be as critical in peacetime when weapons are disassembled: whether there is a robust safety and arming mechanism on the weapon ensuring that it cannot be armed by accident. Second, because of the need either to disperse weapons to preserve them against a possible first strike or to ready them for use, they will be handled and moved much more than in peacetime, increasing the opportunity for accidents. Finally, if the weapons are either brought together with delivery systems or are actually mated to those missiles or aircraft, then the safety of those systems comes

into question. For example, if either India or Pakistan is still using liquid-fueled missiles as nuclear weapons delivery vehicles, then the chances for accidents rise significantly given the high volatility of that fuel type.

Similarly, it will be more difficult to ensure the physical security of weapons (the ability to keep them from falling into unauthorized hands) in times of crisis or war simply because the weapons are likely to be moving around outside of secure storage facilities. In addition, responsibility for their security is likely to be handed over at various times (from the storage facility commander to a convoy commander to a launch facility commander), opening up opportunities for miscommunication and lapses of responsibility. In the cases where India and Pakistan move to the high force posture posited in chapter two, safety and security might actually be better since both forces will be deployed and more likely will have developed procedures and technologies to address these questions during day-to-day operations and exercises. If both sides remain at a low force posture, they may only have to address these questions seriously for the first time in a crisis, whereupon peacetime measures and procedures might simply prove inadequate.

The reliability of a nuclear weapon, the ability to ensure that it performs as designed over time, is less of an issue for this study although it is usually paired with safety and security in U.S. discussions of nuclear weapons. It could be argued that less reliable weapons, or weapons where the users are unsure of their reliability, could actually be stabilizing. If either India or Pakistan were uncertain that their weapons were reliable over time, they might be reluctant to take risks in a crisis that could lead to possible use. Much of this assessment, however, is situation specific because of India's and Pakistan's

divergent doctrines on use. For Pakistan, reliability is a much greater concern because of its first-strike doctrine and its belief that nuclear weapons use may be necessary to ensure national survival of an Indian conventional or nuclear attack. For its part, India is certain that it could prevail in either a conventional or a nuclear conflict with Pakistan, making it less worried if its nuclear weapons do not perform exactly as designed. However, in a future Indian crisis or conflict with China, this issue may be more critical for New Delhi.

It is important to note that both Indian and Pakistani officials have demonstrated publicly a keen awareness of and sensitivity to safety, security, and reliability issues. Indeed, they have often taken offense at Western commentary that the two sides would be unable to manage their nuclear capabilities. As a result, they have reflexively rejected unofficial American and other assistance.³ India's NSAB report placed great emphasis on these three areas as priority tasks. Whether the declared objectives are merely rhetorical is unknown. Nevertheless, both are no doubt taking some steps to address safety, security, and reliability issues. The relatively leisurely pace with which doctrine and force structure developments have proceeded in each country may reflect, in part, the recognition that they do not yet possess all of the technologies and procedures to harness existing weaponry safely and securely. In other words, they recognize that crises and unanticipated shocks could overwhelm existing measures and ongoing efforts to address safety and/or security issues. Whether they can devote sufficient resources rapidly enough before the onset of another major crisis remains an open question.

The second general area of concern may seem obvious, but it is useful to note here since

it colors all future scenarios. This is that India and Pakistan have policy objectives regarding the other that are fundamentally at odds with one another, and this is unlikely to change over the period of this study. India wants to maintain security while achieving great-power status. These goals translate into the domination of South Asia, the pacification of Pakistan, and the reincorporation of Pakistani- and Chinese-occupied portions of Kashmir. The crusading impulses of its liberal democratic ideals, and its long history, giant landmass, impressive economic growth in the past decade, and military potential will all sustain and fuel India's hegemonic ambitions.

By contrast, Pakistan's political objectives are seen by Islamabad as matters of national survival. Their concerns are more structural in nature and include territorial claims, ideological disposition, and deep-rooted fears about possible loss of autonomy.⁴ Having been defeated by India and having seen one of those defeats result in a significant loss of territory (East Pakistan), Pakistan wishes to resist Indian domination. As noted in chapter 1, the close linkages between national identity and the unresolved Kashmir dispute have also hardened Pakistani convictions that the reunification with the Indian-held territories is vital to the nation's well-being. Given how severe Pakistan believes the consequences of failure would be, it is far less comfortable with the status quo and more insecure than India. Hence its future actions and reactions are likely to be more radical and less risk averse.

Future Scenarios

Before examining the specific scenarios, it is important briefly to note the methodologies used to select and develop them. The various doctrines and associated force structures exam-

ined in chapter 2 for India and Pakistan demonstrate the range of the possible, and as noted, elements of each of the three types of doctrines and force structures could exist at one time. With three distinct force structures for each side, nine force posture combinations are at least theoretically possible. Combine this with various crisis or war types as seen over the past fifty-plus years between India and Pakistan, and the number of potential scenarios quickly gets beyond the bounds of the reasonable. Therefore, this study reduces the scenarios to three, based on the following criteria. First, in order to ensure policy relevance, the crises are within the realm of the plausible. As such, the force structures for each alternative future are timeframe sensitive. For example, domestic or foreign acquisition of sea-launched nuclear weapons within the next five years is implausible for either India or Pakistan. Therefore, a scenario involving those capabilities is set further out into the future. Second, the scenarios all have nuclear escalation potential based on analysis of previous crises and wars. Third, each scenario highlights distinct policy dilemmas, political problems, and ambiguities in decision making for India, Pakistan, and the international community. Most important, they encapsulate some of the most destabilizing elements of each alternative doctrine and force structure that could push each side to escalate to nuclear use. Clearly, these scenarios do not cover the full range of what is possible. Nor does positing them mean that they are likely to happen or to unfold in exactly the manner described in this chapter. Rather, they are meant to serve as analytical tools to help think about what the future may be like and where the most destabilizing intersections may occur between doctrines and force structures on the one hand and future

crisis situations on the other. Each scenario begins with working assumptions and the proximate causes of the particular crisis. The narrative then turns to the description of the crisis. Each scenario concludes with an enumeration and analysis of the specific escalation potential that the mix of the scenario and doctrine/force structure elements highlight.

Scenario 1 – Kashmir Yet Again

The first scenario involves the recurring Kashmir problem and is essentially a more severe reprise of the 1999 Kargil crisis. The timeframe for analysis is 2007. By that point, the international community has long since concluded that sanctions have done little to reverse the nuclear weapons programs in South Asia. Consequently, major supporters and donors such as Japan have followed the U.S. lead from the fall of 2001 and granted broad sanctions relief to Pakistan and India. This, combined with post-Afghan war assistance from the United States, in turn leads to a partial Pakistani economic recovery and an associated rise in domestic stability. The military leadership has lived up to the promises it made in 2001, relinquished its formal political authority, and returned the country to nominal civilian rule in the autumn of 2002. As time passes and because the economic and political consequences of the Kargil crisis have faded relatively quickly, most politicians and military figures come to believe that the 1999 operation was not only a tactical military success but that the political downsides were so minimal that it could warrant a reprise. Washington's political embrace of Islamabad in the fall of 2001 only bolsters the feeling among some in the political and military elite that it has sufficient political cover from the relationship with the superpower to test India again.

Buoyed by relative internal stability and external support, the leadership draws some misguided conclusions about the Kargil conflict. First, using a combination of regular and irregular forces and better weapons and tactics, Pakistan becomes convinced that it could achieve tactical and strategic surprise against India yet again. Second, Indian restraint during the 1999 crisis (e.g., refraining from crossing the line of control with its aircraft or on the ground in hot pursuit of infiltrators) reinforces perceptions that Pakistan can act on the low-intensity conflict level with impunity under the cover of its nuclear weapons. Third, Islamabad gambles that the first two assumptions would enable it to force New Delhi to fight on Pakistani terms, limit New Delhi's escalation options, and provide Pakistan with significant leverage to force India either to cede the territory or to negotiate a solution to Kashmir on Islamabad's terms.

On the other side, India remains convinced that Kargil was a major military and political victory and continues to consolidate its control of Kashmir with little reference to popular desires in the region or any of Islamabad's interests or wishes. A confident India does not perceive any need to adjust conventional or nuclear strategies to deal with future threats from Pakistan beyond those changes recommended by the government-mandated Kargil review committee. New Delhi believes that its tactical military and organizational changes will suffice to guard against both strategic and tactical surprise by Pakistan in the future, and becomes confident that it can defeat any new, large-scale Pakistani-sponsored incursion by taking conventional military action that would stop short of what it believes to be Islamabad's "red lines" that may lead to conventional and/or nuclear escalation.

India's relatively successful consolidation process in Kashmir triggers Pakistani fears that it will soon be unable to halt or reverse this trend either through its current levels of support for the insurgency or by negotiations. Islamabad concludes that it must undertake military action whose type and scale at a minimum match those of Kargil 1999 to ensure that India does not achieve a *fait accompli* in Kashmir. In an unexpected turn, renewed uprisings in Indian-controlled Kashmir provide Pakistan with the perfect opportunity to intervene. The civilian leadership hesitates. Fearing that the civilians might squander a dwindling chance to wrest the land from India, the military places tremendous pressure on the government to ensure that Pakistan takes decisive action. The military's successful political maneuvers, coupled with a groundswell of popular support for action in Kashmir, force the civilian leadership to order another military campaign across the line of control. Regular forces, insurgents, and volunteers infiltrate weak points across the line of control. They penetrate more broadly and deeply than during the 1999 Kargil crisis. Despite New Delhi's efforts to improve intelligence capabilities, Pakistan's sudden thrust surprises India again. While New Delhi belatedly plans for a response, the infiltrators entrench their positions, which further encourages locally based insurgents. The Indian army and air force respond with massive counterattacks using the techniques and restrained rules of engagement that were successful in 1999. However, this time they are unable to dislodge or drive back the enemy.

The Indian leadership then faces an acute policy dilemma: it must either escalate the war, or capitulate to Pakistan or negotiate on Islamabad's terms, both unacceptable. New Delhi refuses to consider submission or negotiation

and begins planning for conventional escalation. Moreover, the evidence of an unprovoked Pakistani military action heightens domestic pressure in India not only to push out the infiltrators but to punish Pakistan severely and resolve the Kashmir problem once and for all. The military presents the civilian leadership with two broad sets of options that are not mutually exclusive. First, Indian ground and air forces could be allowed to cross the line of control with more relaxed rules of engagement. This would enable them to interdict Pakistani lines of communication, conduct hot-pursuit operations, and target supply bases. Second, India could escalate horizontally by mobilizing and moving armored forces forward in the Rajasthan Desert near Lahore, threatening Pakistan at a vulnerable point as in 1971, 1987, and 1990. This option avoids crossing of the line of control, which is perceived as a major escalatory threshold for Pakistan, but it does threaten Pakistani territorial integrity in another way. This type of move would send a powerful, but potentially dangerous, signal of Indian resolve. Moreover, it could function as a strategic diversion. Either choice would represent a major step toward further escalation.

Decisions and Options

At this critical point both states are confronted with various difficult decisions and options. The domestic political pressures on both sides are intense not to back down, to win, and in India's case, to broaden the conflict and "solve" the Kashmir/Pakistan issue once and for all. While outside powers may at this point attempt to intervene to ease the crisis, history shows that their influence, particularly when core issues like Kashmir are in play, is limited.

It is useful here to consider the elements of escalation inherent in the scenario and how they would play out with the assumed doctrine

and force structure variables to see exactly under what circumstances the interaction could push either side to consider escalation to the nuclear level. In terms of doctrine and force structure issues, this scenario assumes that both sides have progressed modestly in nuclear capabilities. By 2007, India and Pakistan will have likely accumulated enough nuclear weapons to fall somewhere between the low and medium ranges discussed in chapter 2, tending toward the low option. Both sides have a limited inventory of nuclear weapons and at least India still relies heavily on aircraft as its primary delivery platform. Each has a handful of short- to medium-range missiles that can be armed with nuclear warheads. Given that Pakistan enjoys tested warhead designs, it is likely to hold a numerical superiority over India in the ballistic missile area. Both sides have yet to develop fully their command and control architecture. Indeed, neither side feels compelled within the five-year timeframe to incorporate sophisticated systems to harness the small number of weapons that it has available. Nuclear forces remain for the most part undeployed, and each side must assemble warheads or bombs, move them to locations to meet up with delivery vehicles, and then disperse the launchers or aircraft to predetermined launching points or designated airfields.

The escalation potential in this scenario is particularly high when both sides still have small, relatively unsophisticated nuclear arsenals. India's two conventional escalation options (crossing the line of control or invading farther south) both may be considered by Pakistan as threats to its national survival or autonomy and therefore as warranting a nuclear response. Even if they are not considered in and of themselves as crossing a red line for Pakistan, once India begins actually to under-

take either of those conventional options, the effects may trigger other concerns about the survivability of Pakistan's nuclear forces that force Islamabad to consider nuclear use. The problem is twofold. First, India cannot know clearly exactly where Pakistani red lines are. Therefore it may mistakenly choose a conventional option that it believes is safe but is actually pushing Pakistan to the brink of nuclear use. Second, the small size of Pakistan's nuclear force structure in this scenario makes it vulnerable to Indian conventional preemption, which Pakistan may worry is also a military objective of Indian moves across the line of control or the international border farther south. Should New Delhi choose to take the war across the line of control, Indian conventional air strikes could decimate Pakistani air defenses and leave nuclear facilities and weapons vulnerable to further air or ground attacks. Also, a conventional ground invasion could overrun nuclear facilities and forces or cut the north-south lines of communications, which could prevent the Pakistani military from mating warheads with the delivery systems or moving forces to predetermined launch locations.

Regardless of the size of the Indian nuclear force, because of the small Pakistani force and the potential for conventional preemption, Pakistan is trapped in the classic "use it or lose it" dilemma. It can ill afford to refrain from nuclear use and risk a disarming conventional or nuclear first strike. Yet, nuclear use against India's soft targets would no doubt invite national annihilation. The small force structure and its vulnerability to preemptive strikes would likely force Pakistan to disperse and ready its arsenal during the early stages of the crisis if not before its onset. This very response could prove escalatory. Should India detect the movement of

the force, it could conclude that Pakistan was preparing to conduct a first strike. This could in turn spur the Indian leadership to consider preparations for a conventional preemptive strike on those assets, if they could be accurately targeted, or a punishing nuclear second strike. Should Pakistan detect that such deliberations were occurring in New Delhi or discover the actual movement of warheads or bombs to delivery platform locations, Islamabad may become less constrained and more prepared to resort to the nuclear option.

Pakistan's options under the belief that it may be in a "use it or lose it" situation are three. First it could choose to take a risk (of losing assets before it could use them) and conduct a nuclear strike of very limited scope designed to demonstrate resolve to India and signal to the international community that the situation has gotten out of hand and requires intervention. It would then reserve the remainder of its arsenal for countervalue targets if India was not dissuaded or chose to respond with its own nuclear weapons. Whether the signal would be read correctly in either New Delhi or other world capitals is an open question, and it could provoke huge political and military pressure for India to strike back before the international community figures out what its response would or should be. Politically, an Indian government may simply not be able to abide having its forces under nuclear attack without responding in kind, and militarily, given intelligence shortfalls, India may not know that this was "only" a signal or demonstration shot. In many respects, this is a high-risk proposition for Islamabad.

Second, Pakistan could attempt to use its limited force in a tactical warfighting mode to strike Indian conventional capabilities, particularly ground units if Indian forces cross

the international border in the vicinity of Lahore. The problem with this option is that the small number of weapons in Pakistan's arsenal means that this is likely to be ineffective. Moreover, it would be a useful option only if India were attacking conventionally in the south. Nuclear weapons would have little utility in Kashmir against Indian hot pursuit or against air strikes across the line of control. India would also consider such a warfighting use to be highly provocative. Furthermore, this approach would use most of Pakistan's ready weapons and invite an Indian second strike.

The final, and most likely, option would be for Islamabad to use most of its force to strike New Delhi and other identified nuclear and military command nodes, hoping to wreak enough damage and chaos to stop any Indian conventional attack in its place and to cripple India's ability to conduct a nuclear counter-attack. In any of these situations, New Delhi would be under tremendous pressure to strike back and, should the forces be available, to annihilate Pakistan.

Escalation Problems

The escalation problems in this scenario then, assuming the low force postures and associated doctrines, are six. First is the problem that Pakistan may initially believe that nuclear deterrence will work as a shield under which it can conduct low-intensity operations that would force India to come to terms over Kashmir. Second is the uncertainty on the part of India as to what constitutes a Pakistani red line in terms of Indian use of conventional force to respond to incursions in Kashmir. Third, the small size of Pakistan's force puts Islamabad in a "use or lose" situation, almost regardless of India's actions, if Pakistan believes the worst about New Delhi. Fourth, India's conventional escalation options may not in and

Kashmir Crisis Summary

Main Features of Crisis

- Both Pakistan and India have the low force postures posited in chapter 2
- Pakistan attempts another Kargil and achieves tactical surprise
- India unable to prevail using Kargil 1999 tactics and self-imposed limitations
- India chooses to escalate conventionally
- India's conventional response crosses Pakistan red lines, leading to limited nuclear use
- India responds with massive retaliation

Pakistan Escalation Issues	India Escalation Issues
<ul style="list-style-type: none">· Believes that it can conduct low-intensity conflict with impunity thanks to nuclear capability· Fears Indian conventional superiority· Small nuclear force structure leads to worries about preemption and prompts "use it or lose it" mentality· Small force size also prompts consideration of all-out use since unsure of signaling and insufficient for war-fighting mode	<ul style="list-style-type: none">· Believes that conventional changes made since 1999 Kargil conflict sufficient to deter Pakistan second attempt or defeat it should deterrence fail· Believes that it knows Pakistani red lines well and can avoid crossing them· Unaware of effect of own conventional moves on Pakistan's considerations about nuclear use· Any nuclear use by Pakistan will trigger tremendous pressure for all-out retaliation

of themselves be sufficient to threaten Pakistan's national survival and trigger a nuclear response, but they may incrementally begin to threaten the survivability of Pakistan's small nuclear force and its command and control structure. Fifth, even if Pakistan were to choose a demonstration use of its nuclear capability, India would face both political and military pressure to respond with nuclear weapons, particularly considering the small size of its own force and the potential vulnerability of its own civilian-dominated command and control system. Finally, of the three options available to Islamabad, its limited force size and the history of ineffective international intervention on its side point toward an all-out use of its nuclear capability.

Scenario 2 – Exercises in Nuclear Misperception
The second scenario examines the potential for field training exercises involving conven-

tional and nuclear forces to spiral into a crisis and introduce the risk of nuclear escalation. The timeframe for this scenario is 2010 and each side has continued the development of its nuclear doctrine and force postures to the point where they approximate the medium option outlined in chapter 2.

In the timeframe of this scenario, India has continued to modernize and expand its conventional military capabilities with an eye to dominating South Asia (including Pakistan) and expanding its power projection capabilities throughout the region. India is also keeping a close eye on China's ongoing military modernization and attempts to keep pace although at a lower level of overall expenditures. This modernization and expansion includes the acquisition of satellite-based intelligence capabilities, air-to-air refueling capability, longer-range precision strike aircraft, aircraft carriers, and a significantly enhanced ground

force capability for mobile combined-arms operations. As India modernizes, it also sees the need to expand the level and sophistication of its command post and field training exercises to improve joint operations on the conventional level. As it watches Pakistan expand its nuclear force, New Delhi also begins to increase the pace and scope of exercises for its own nuclear forces in order to be better prepared to use them if necessary. Finally, with an eye to Pakistan's nuclear force growing large enough that Islamabad may begin to consider tactical use against Indian conventional forces, India expands the equipping and exercise program for its conventional forces to be able to operate in a nuclear environment. Despite the growth of India's conventional and nuclear force structures, systems such as the early generation *Prithvi* ballistic missile remain in the inventory, and it remains unclear to outside observers, including Pakistan, whether it is a conventional or nuclear delivery system since it could carry either type of warhead. Finally, the Agra summit process, begun in 2001, has run its course over the next several years with few results. The process eventually grinds to a halt, and tensions between India and Pakistan at the time of this scenario are relatively high.

This scenario assumes that Pakistan continues to modernize its conventional and nuclear forces with assistance from both China and North Korea, but that over time it falls further and further behind India largely because of the mismatch in resources available to the respective militaries. This not only concerns Islamabad from the perspective of a future conventional clash, it also raises concerns that India may be acquiring the capability to conduct a conventional preemptive strike against Pakistan's nuclear forces. In response to this concern, Pakistan takes three steps to improve

the survivability of its growing nuclear force. First, it raises the alert levels of a larger portion of its force by co-locating warheads and launchers and pre-delegating authority to launch to lower levels in the chain of command. Second, it attempts to raise the number of potential targets for India by announcing that its *Hatf* missile force, previously thought to have been relegated to conventional missions because of its limited range and the coming on line of new missiles, is now formally dual-capable. Finally, Pakistan undertakes more regular and more extensive exercises with its nuclear forces, including short-notice alert exercises, designed to prepare it to act in case of a bolt-from-the-blue attack by New Delhi. In addition, Islamabad remains unconvinced of India's stated policy of second strike for its nuclear forces, believing instead that India would be prepared to strike first with nuclear weapons if circumstances warranted.

In this scenario the geographic vulnerabilities of India and Pakistan, evident in past crises (1965, 1971, 1987, and 1990), are exacerbated in Pakistan's case by the enhanced ability of India to conduct rapid strikes on the ground and precision strikes from the air against both its conventional and nuclear forces. Despite the passage of time and investment, at least on India's part, in new intelligence capabilities, significant gaps and shortfalls remain. One particular shortfall relevant to this scenario is the lack of understanding of the other side's nuclear doctrine, force structure, and, particularly, operational habits. This is due to the ongoing secrecy that both sides have maintained about their nuclear forces and because each has only recently begun expanding its exercises and operations to correspond with a larger and more fully deployed nuclear force structure. The result is that neither side has settled

into normal patterns of operation for its expanded weaponized and deployed nuclear forces. Because of real shortfalls in intelligence capabilities, efforts to deny the other side intelligence, and the lack of data points, neither side has a good picture of the other side's regular operating habits and procedures for nuclear forces, leading to an inability to distinguish between exercises and preparations for actual use.

In something of a repeat of the Brasstacks exercise series in 1986-87, the Indian civilian and military leadership decides to hold a large series of simulation, command post, and field training exercises for both its conventional and nuclear forces, first near the Chinese border and then near the Pakistani border. The large conventional exercise is coordinated with a field training exercise for India's strategic nuclear forces, including both aircraft and its *Agni* missile force. In a move intended both to test its own flexibility and to keep Islamabad off balance, India forward deploys *Prithvi* missiles with its conventional forces in the field, in the desert training areas near Rajasthan and, more importantly, near Lahore.

Given Islamabad's uncertainty about India's capabilities (whether the *Prithvi* is nuclear, conventional, or armed with chemical weapons), this element of the exercise in particular is disturbing. The use of a large number of *Prithvis* with either conventional or chemical warheads could slow a Pakistani conventional response to an Indian attempt to cut the country in half. If armed with nuclear warheads, such weapons could open a breach in Pakistani lines as well as target Lahore as Indian forces moved forward, should the exercise turn into an attack. With the simultaneous exercising of India's strategic nuclear forces, Pakistan worries that India is either prepar-

ing a surprise nuclear first strike or dispersing its nuclear forces to allow it to ride out any Pakistani attempt to retaliate after an Indian conventional assault. Assuming the worst case, Pakistani planners also have in mind the possibility that India is preparing for tactical nuclear weapons use, retaining its strategic weapons to hold Pakistani cities hostage as its conventional forces defeat the remainder of Pakistan's army. Consequently, Pakistan's response to all of these Indian activities is to forward deploy its conventional forces and its *Hatf* missiles. This raises Indian fears that Pakistan would use its nuclear weapons in a tactical mode to overcome India's conventional advantage, keeping back its longer-range weapons to hold Indian cities hostage.

As in 1987, attempts at communication to lower tensions fail to reassure either side. Again, the problem is not that the means to communicate do not exist. It is either the lack of will to use them or the inability to communicate reassuring messages to the other side. In their quests for more information, either for reassurance or to prepare against a possible attack, both sides engage in more aggressive monitoring of the other, and intelligence gathering efforts begin to look like preparations for an attack. Efforts to ward off intelligence collection by aircraft and on the ground also raise the prospects for clashes. Each side faces a set of decisions about whether to strike first conventionally or even with nuclear weapons, fearing that the other will take advantage of the tense situation.

The elements of potential escalation in this scenario derive in part from the relative newness of the larger and more ready force structures assumed in the medium posture postulated in chapter 2. Just as the Brasstacks exercise series was a first attempt by India to

test new theories and operational doctrines for conventional forces, the exercises in this scenario are posited to be the first, or among the first, exercises of ready nuclear forces, including those deployed with conventional forces. In our medium posture model, we assume that India will retain a second-strike doctrine, so it is unlikely that New Delhi will change course over the years and have its *Prithvi* missile armed with nuclear warheads, particularly because at the time of the scenario, 2010, it is likely to have a significant number of *Agni*-class missiles that would be both more capable and more reliable. However, the level of distrust likely to obtain during this type of scenario means that Pakistan would still assume the worst case, that the *Prithvis* are armed with nuclear weapons and that India has adopted a nuclear warfighting doctrine to augment its conventional superiority.

In the medium force posture, Pakistan will have a force just large enough to begin at least thinking about options for tactical use and warfighting with its nuclear weapons. India will likely assume that this is the case and also assume that the *Hatf* missile systems are the primary delivery vehicles for use of nuclear weapons in this mode. As the number of Pakistani missiles increases, and in a situation where Pakistani conventional forces are forward deployed with *Hatf* missiles, India will worry that Islamabad would undertake a first strike using these short-range missiles as a way to counter India's conventional superiority. Pakistani conventional forces would then be capable of striking east into the Punjab or north into Kashmir, cutting India off from that province. In the meantime, Pakistan could reserve some nuclear weapons on dispersed longer-range missiles to hold Indian cities hostage, essentially daring India to retaliate with

its nuclear forces. Indeed, massed Indian forces near the border would present a lucrative target for nuclear weapons used in a tactical or warfighting mode, and Pakistani military officials may press for such a use if they believe that India is going to attack in any case.

Even if one assumes that neither side is interested in conducting a nuclear or conventional first strike in such a scenario at least initially, escalation pressures exist because of the force structures, doctrines, and ongoing geographic vulnerabilities. Some aspects of the medium force posture may be stabilizing in this crisis, namely the elements of the force each side holds as an assured second-strike force. Again, however, the issue is how the intentions of one side, combined with the disposition of those forces, are viewed by the other side and how the two sides see interplay with potential tactical nuclear weapons use.

Moreover, India's and Pakistan's ability to manage such a crisis and eventually de-escalate it would remain questionable for the following reasons. First, absent any significant improvements in general relations between the two sides, communications during such a crisis will likely remain inadequate. Intelligence shortfalls will likely remain, and analysis will still likely center on worst-case assumptions. In addition, if small-scale conventional clashes take place near the border, it is not obvious that either side is equipped to quickly detect whether an explosion was conventional or nuclear or whether C3 is robust enough to pass information up the chain quickly in the event of an accident involving a forward-deployed nuclear weapon. Unlike the Kashmir situation, domestic politics may not play as big a role in such a scenario, so the pressures to escalate from this direction may not be as strong. In sum, however, such a situation could occur, and it could

Exercise Crisis Summary

Main Features of Crisis

- Both India and Pakistan have the medium force postures described in chapter 2
 - Field training exercises for conventional and nuclear forces by the two sides raise concerns of an attack out of an exercise
 - Both sides deploy short-range missiles that could be nuclear-armed with forward-deployed conventional forces
 - Because of newness of medium force postures, neither side has a good intelligence picture of exercise patterns with nuclear or potentially dual-capable forces
 - Geographic vulnerabilities remain and exacerbated by threats of tactical nuclear weapons use
-

India Escalation Issues

- *Prithvi* missiles forward deployed with conventional forces
- Concern about Pakistan first-strike doctrine and forward-deployed *Hatf* missiles – if nuclear could allow Pakistani forces a breakthrough in the Punjab
- Concerned that Pakistan has delegated launch authority to lower-level commanders
- Unaware or discounts that its conventional and/or nuclear exercises could be disconcerting to Pakistan

Pakistan Escalation Issues

- *Hatf* missiles have nuclear warheads and are forward deployed with conventional forces
 - Launch authority delegated to lower levels in chain of command
 - Large portion of nuclear force on higher level of alert
 - Lack of understanding of Indian exercise patterns and concern about preemption – either purely nuclear or conventional with a tactical nuclear use for a breakthrough
-

escalate to nuclear levels even though neither side was at first even intending a clash at the conventional or sub-conventional level.

Scenario 3 – Strategic Surprise

The third scenario involves the sudden opening of a strategic capabilities gap between Pakistan and India that fuels instability and heightens the potential for crisis. This scenario is set in approximately 2015 and assumes favorable domestic and international conditions for India over the intervening fifteen years. The success of India's reforms spurs economic growth and helps sustain the necessary resources to fund a significantly larger nuclear force along the lines of the high posture described in chapter 2. A new strategic orientation, spearheaded by Jaswant Singh and his followers, begins to take hold among the elite as a guiding principle of statecraft. Norma-

tive constraints about the use of force or the possession of nuclear weapons become largely symbolic while realism becomes more pronounced in India's foreign and security policy. Recognizing that a policy that actively shuns India's nuclear capabilities has proved fruitless, Washington abandons its sanctions completely and, as part of a broader Asian balance of power strategy, engages India. With greater economic and political ties, India enters a strategic partnership or entente with the United States. Washington and New Delhi slowly develop a renewed military supply relationship although India continues to purchase military items, particularly those that Washington is still reluctant to transfer, from Russia.

At the same time, India perceives a rising Chinese threat. Beijing's continued nuclear modernization and a shift toward limited deterrence deeply alarms New Delhi. China is

reportedly developing a limited missile defense system with the technical help of Russia. As a result, India feels compelled to expand its own forces to keep pace and to have the capability to defeat China's missile defense. Relations with Pakistan remain tense. Periodic summits between the top leaders fail to achieve any significant breakthroughs on the Kashmir dispute. India is also increasingly wary of the internal instability in Pakistan. Given these worrying trends, particularly China's potential military threat, India aggressively funds its nuclear program, with a particular emphasis on sea-based capabilities.

In contrast, Pakistan remains in the grip of enduring challenges that it has yet to resolve. Despite reform efforts, the economy continues to suffer from serious malaise. Domestic politics remains racked by instability. The civilian leadership is weak, corrupt, incompetent, and increasingly unpopular. Despite having returned the civilians to power, the military maintains a firm grip over national security policy. It is also eyeing the civilian elites with increasing wariness. Rumors of a new military coup abound on the streets. On the surface relations with China seem strong, but strategic preoccupation with problems in North Korea and Taiwan diverts Beijing's attention from its southern front. China is also genuinely constrained by nonproliferation agreements it signed or committed to in principle with the United States. As a result, China is not as forthcoming as in the past with technology or weapons transfers, and Pakistan feels increasingly isolated and insecure in the region especially as Indo-American relations continue to solidify. As India accelerates its conventional and nuclear capabilities, the asymmetry in power between the two rivals grows.

After years of secret and inconclusive negotiations, the Indian government finally agrees to an extensive arms deal with Russia. Despite pressure from Washington, New Delhi purchases one conventional submarine with SLBM capabilities with an option to purchase more in the future. After operational trials with an Indian crew in Russia, the submarine is delivered to India. While it will take a few more years to train the crew and achieve operational proficiency, the physical presence of an SLBM-capable submarine sends shock waves through Pakistan. Islamabad had assumed, based on past experience, that such a development was still many more years away. An Indian announcement that at least two or more submarines will be delivered over the next two years heightens Pakistani fears further. With at least three subs, India would be able to deploy one submarine armed with twelve ballistic missiles at all times. Pakistan worries that India will soon become invulnerable to a first strike designed to neutralize India's nuclear weapons and infrastructure or command system. Despite India's announced second-strike policy, Pakistan is convinced that India has never abandoned a first-strike option. With India in possession of submarines carrying SLBMs that can operate virtually undetected, Pakistan is extremely concerned about an Indian bolt from the blue to disarm or decapitate Pakistan. Moreover, India's growing land- and air-based nuclear arsenal would guarantee New Delhi an assured second-strike capability to deter any remaining Pakistani response capability. At the same time, Pakistan's strategic position vis-à-vis India in the conventional military realm has deteriorated in relative and absolute terms. Islamabad concludes that it can no longer close the strategic gap or compete with India much longer.

Pakistan perceives the submarine delivery to be a harbinger of major changes in the strategic balance that would severely undermine its security in the coming years. The leadership assumes that a fully operational submarine fleet would enable India to exercise escalation dominance over Pakistan in any situation. Fearing that India's nuclear and conventional advances would irreparably unravel mutual vulnerability, a desperate Islamabad begins to consider riskier options. The military presents the civilian government in Islamabad with several policy alternatives. First, it could seek to reverse the impending strategic imbalance by seeking Chinese or North Korean assistance in providing some sort of countervailing technology transfers such as MRV or MIRV capabilities or missile defense capabilities. Since such a transaction might take several years to complete, Islamabad must weigh the benefits of new capabilities against the time required to acquire and integrate them into its arsenal. On a related point, there is uncertainty about exactly how such capabilities could be used to counter an SLBM, which many in Pakistan consider to be the magic bullet that would unravel the nuclear balance.⁵ Second, confident that its first-strike nuclear force is still a useful deterrent against an Indian nuclear or conventional attack, Pakistan could gamble that this would be the one last opportunity to take back Kashmir. This would entail undertaking the type of extensive support for a low-intensity conflict in Kashmir detailed in the first scenario. The third, and riskiest, option would be a preemptive conventional or nuclear attack, presumably against the capability that threatened to upset the strategic balance. Such a strike could manifest itself in an air or missile strike (conventional or nuclear) to destroy the submarine in dock or a

submarine attack against the Indian platform during sea trials. Such an attack would serve as a warning to India that Pakistan will not tolerate the fielding of such a capability in the future. If done swiftly and effectively, the onus would fall on India to escalate in response, and Pakistan would attempt to bring in outside actors to stay New Delhi's hand. Such an option is not too far-fetched and would likely be painted by its advocates as the equivalent to what it believed India almost tried in the 1980s, striking against capabilities before they became a problem. Moreover, some in Pakistan might see it as a long-overdue counter to the Israeli attack on the Osirak reactor in Iraq.

Clearly, the latter two policy options, if chosen, would most likely escalate to a nuclear confrontation. Would Islamabad consider such drastic actions, particularly the preemptive strike? It would depend largely on the quality of Pakistan's intelligence capabilities, its military capability, and the confidence the leadership had in it to pull off such a strike. Good intelligence might provide adequate information with which to anticipate the arrival of the submarine. However, the tactical and targeting intelligence, especially if Pakistan were to attempt the strike while the submarine is at sea, would be a significant challenge. If Pakistan were to respond with a preemptive strike, India would be under severe domestic political pressure to retaliate in some manner, either with a devastating conventional attack on Pakistan's nuclear infrastructure (thereby raising the possibility of a Pakistani nuclear riposte) or a nuclear strike of its own.

In Pakistan, domestic political pressures would be significant for some sort of tangible reaction to India's acquisition of the SLBM capability. If Islamabad were not assuming the worst about New Delhi's intentions, then

Strategic Surprise Crisis Summary

Main Features of Crisis

- Both India and Pakistan approaching the high force structure posited in chapter 2
- India pushing particularly hard to compete with China
- Relations between the two remain tense
- India's relationship with the United States on the rise; Pakistan's still relatively distant
- With little warning, India acquires SLBM capability
- Pakistan responds in one of three ways: 1) seeks countervailing capabilities from China/DPRK; 2) tries a Kashmir attack fearing that strategic window closing; 3) conducts preemptive strike against Indian submarine(s)

Pakistan Escalation Issues

- Strategic surprise victim
- Increasing conventional and nuclear gap raises fears that window of opportunity is closing
- SLBM seen as highly destabilizing because India has assured second strike or, in Pakistan's mind, bolt-from-the-blue first strike capability
- High level of domestic pressure for short-term response to the surprise

India Escalation Issues

- Capability acquisition is response to China; impact on Pakistan downplayed
- India could also be surprised if Pakistan acquired MIRV capability from China
- If Pakistan conducted a preemptive strike against the Indian submarine, pressure for nuclear response or devastating conventional response very high, in turn risking Pakistani escalation to the nuclear level

acquisition of an SLBM capability should not, at least in theory, be seen as destabilizing. For a country with a declared second-strike doctrine, the acquisition of an assured second-strike capability would be logical, and because of the geographic proximity of the two states, having a submarine-launched weapon provides no new capability in terms of accuracy or flight time for India. However, Pakistan's reaction to India's nuclear tests in 1998 provides evidence that politics at times trumps reason (and significant pressures from the international community) in South Asia, as it does in many parts of the world. This scenario, which may unfold relatively slowly (because of the time between announcement and delivery of the submarine), may allow time for international intervention to tamp down a potential crisis. The scenario could also be played out using acquisition of other strategic capabilities by

either side, such as missile defense (by either side), large numbers of missiles, or MIRV technology. Most of these scenarios involve technology transfer, so outside actors play a role in precipitating the crisis as well as potentially having a role in ameliorating it.

The potential for escalation to the nuclear level in this scenario has less to do with the actual force structures in place at the time it takes place (assuming medium moving to high postures for both India and Pakistan) than with the fact that the levels of capability are changing rapidly and unequally. Because one side believes that it has been trumped strategically, it may be willing to take high-risk actions in an attempt to recover. In this scenario this may involve attacks that could invite nuclear retaliation or begin a conflict spiral that could end in a nuclear exchange. Pakistan in particular would be more open to risk taking if

India continues to pull away in both conventional and nuclear capability over the next decade-plus. It should be noted that the assured second-strike capability that is part of an SLBM force is stabilizing theoretically because it has deterrence value, but submarine-launched capabilities raise other possibilities for accident and incident. Sea-based assets raise new and different command and control issues, particularly if India wishes to keep tight civilian control over its nuclear assets. Similarly, the possibility of accidents at sea raises different opportunities for misunderstanding and possible miscalculation, particularly if Pakistan attempts to begin regular surveillance of an Indian SLBM capability.

Conclusions

In some ways, this chapter outlines the worst possible cases and combinations of crises and future force postures. However, it has been designed to draw out the most troubling instabilities in those combinations. As has been shown above, each doctrine and associated force structure has the potential to be stabilizing or destabilizing depending on a host of exogenous variables such as the perceptions of decision makers at the time, the quality of intelligence, and domestic political pressures. However, each force structure and doctrine carries with it unique qualities that could contribute to instability in different ways. None of the posited scenarios or associated force structures and doctrines is necessarily more or less likely to come to pass. The best that can be said is that crises involving the low force structure will occur early in the study period and those involving a high force structure could not come to pass until near the end of the study period, toward 2015. The purpose of positing these scenarios is to provide analysts and policy makers with information

that could be useful in thinking about the range of possibilities across a plausible spectrum in terms of both force structures and crises.

From a U.S. policy perspective, the point then is not to attempt to persuade India or Pakistan to adopt one or the other force posture (that is, low versus medium versus high). Rather, U.S. policy should focus on making sure that regardless of the force posture and doctrines that India and Pakistan adopt, chances of nuclear use are as low as possible. This will be a significant challenge. Despite the fact that the United States has more influence with India and Pakistan than does any other single country, that influence is still relatively limited. The reasons for this are two. First, as described in chapter 2, India and Pakistan will choose their doctrines and associated force structures based on a number of variables, only some of which the United States can affect, and then possibly only marginally. Second, and as will be discussed more fully in chapter 5, the tools that the United States has to influence Indian and Pakistani choices on doctrines, force structures, and during crises are limited by competing priorities, lack of funds, and – in some instances – international obligations.

As is evident in the three scenarios above, the escalation issues vary with not only the scenario but with the force structure and doctrine of each of the two antagonists. Therefore a supporting issue for United States policy making is determining the doctrine and force structure of each side – not an easy feat, as noted in chapter 2 – and then determining if and when those may change. This will not always be obvious given the opaqueness of the two sides' nuclear policies, but an overall increased engagement by the United States should improve Washington's insights and sources of information. Based on that information and on a renewed focus on sta-

bility issues, the United States should be able to craft policies that raise the nuclear threshold in South Asia. Specific suggestions for how the United States can craft and carry out such policies are examined in chapter 5.

Conclusions & Recommendations

The United States has a vital interest in keeping nuclear weapons from being detonated, either accidentally or intentionally, in South Asia. It also has a vital interest in preventing further proliferation of nuclear capabilities around the world – to states and non-state actors alike. The latter concern has only escalated in the aftermath of the September 11, 2001 terrorist attacks on the United States. India and Pakistan have been a potential source of nuclear proliferation since they first acquired nuclear weapons technologies, but their recent change to overt nuclear weapons states now means that the issue of further horizontal proliferation can be addressed openly for the first time. These two vital U.S. interests – keeping nuclear weapons from being used and continuing to staunch their further horizontal proliferation – are not incompatible. As was argued in chapter 1, pursuing improved safety, security, and crisis stability in South Asia need not undermine U.S. global nonproliferation goals. Therefore the United States should craft new policies designed to enhance stability, particularly crisis stability, in the region and work to advance those policies in a systematic manner. Based on the analysis in the preceding chapters, this chapter provides policy recommendations for pursuing these policies and lays out implementation considerations.

Geopolitical Considerations

One of the most significant challenges for the United States in designing and implementing new policies to enhance nuclear stability in South Asia is how to integrate and prioritize those policies with other interests the United States has with each country and in the region as a whole. In the case of India, the United States has an interest in developing a strategic relationship with a major democratic state with a growing economy. This strategic relationship will be supported by expanding trade and investment and broadening and deepening political-military relations as part of a policy of increasing stability in a critical arc extending from the Gulf to the South China Sea. India may play a role in U.S. policies regarding China. U.S. interests in and with China will continue to be significant and are likely to remain higher on Washington's agenda than issues with India in the short to medium term other than perhaps issues related directly to the war on terrorism. Therefore look for relationships with India to play a supporting role, whatever Washington's ultimate policy is toward China.

With Pakistan, the primary interest as of fall 2001 is Washington's declared war on terrorism, particularly the al-Qaeda terror network and the ruling Taliban regime in Afghanistan. As part of this battle, the United States also has an interest in seeing Pakistan remain an ally and not turn into an extremist state. In the longer term, the United States has an interest in the restoration of democracy in Pakistan and generally in building and maintaining good relations with a Muslim state that could be a moderating influence in the Muslim world. The democratic rule issue may be dispensed with in October 2002 if the Musharraf government keeps to its promise to return

control of the country to a democratic, civilian leadership by then. The terrorism issue is going to be more difficult and more complex in large part because of the events of September 11 and the tremendously difficult and fractious situation in Afghanistan. Even if the Taliban and the al-Qaeda network are vanquished in Afghanistan, the situation will not be settled for years if not decades. The implications of this for U.S. relations with Pakistan will therefore color the interactions between them for years. In terms of nuclear security and stability issues, the new closeness between Washington and Islamabad could be either helpful or harmful, depending on how it is handled. On the one hand, enhanced dialogue that results from cooperation in the war on terrorism should increase trust, improve information gathering, and provide deeper insights into Pakistan's concerns about its general security situation. One would therefore expect that to result in increased leverage on nuclear stability issues. However, on the other, the need for ongoing cooperation on terrorism between the two states might push nuclear stability issues down on the list of priorities. In addition, if Islamabad feels that Washington needs its goodwill on terrorism issues, it might be less willing to bend on nuclear stability considerations if the United States asks Pakistan to take steps that might be uncomfortable or costly (such as cutting off its technology import relationship with China). In other words, Washington's leverage on nuclear stability may be hampered by its need for Islamabad's assistance on the terrorism front.

Realities and Constraints

As noted in chapter 1, neither India nor Pakistan will be relinquishing its nuclear weapons capabilities for the foreseeable future. There-

fore U.S. policies must address the reality on the ground in the region and be flexible and forward looking enough to anticipate likely future developments. Even if both countries maintain doctrines and force structures that are along the lines of what was called the low posture in chapter 2, the possibilities exist for accidents, incidents, and crises to lead to escalation to a nuclear level. The United States, over the course of two-plus generations, has built extensive experience and developed numerous technologies to address these issues, and it needs to begin to apply this expertise in the South Asia region.

In order for such a policy to be viable, the United States must significantly decrease its policy emphasis on rolling back India's and Pakistan's nuclear capabilities. Such an emphasis, evident during the Clinton administration although never expressed as such, had detrimental effects. First, even though "cap, rollback, and eliminate" was a phrase not necessarily found in Clinton administration public pronouncements on the issue, these were assumed by much of the U.S. bureaucracy to be the core goals of the policy toward these two countries' nuclear capabilities. Therefore policies that may have considered accepting the current reality and focusing on stability were not explored in any detail. For example, it was assumed that much of the possible technology sharing with either India or Pakistan related to nuclear safety was illegal under article 1 of the NPT, but apparently no actual legal review was conducted within the interagency. This may be changing as the urgency of events following September 11 appears to be accelerating a variety of reviews in this area.¹ Just as harmful, the assumption that rollback was at the core of America's policies made both India and Pakistan less willing to listen to what the United

States had to say about safety, security, stability, or restraint measures. While understanding was expressed as to the importance of these issues during bilateral discussions, New Delhi and Islamabad felt that any and all proposals in these areas (minor though they were) during the Clinton administration were tied directly to rollback and elimination.

U.S. policy on stability issues should be tailored to current force structures and doctrines in South Asia, but it also must have an anticipatory element to it. As noted in previous chapters, doctrines and force structures will be driven by a number of variables, including the occurrence of crises. The stability issues will vary according to the actual force structure, doctrine, and type of crisis, so U.S. policies cannot be of a "one size fits all" variety. As part of a comprehensive policy on these issues, the U.S. must continually monitor the various drivers that shape Indian and Pakistani decisions about doctrine and force structure and, where possible, anticipate when changes might occur. Policy changes can then be considered ahead of the event and possibly head off certain decisions that may prove destabilizing in a future crisis. Of course, this is more easily said than done, particularly when dealing with issues that both states are likely to keep very closely held. However, as will be detailed below, improved dialogue with each state on these issues should supplement intelligence and should bring a degree of transparency to changes that could prove useful for the United States and for India and Pakistan in pursuing more stable relations.

The United States should begin pursuing a broad range of stability-related policy initiatives immediately. It should not wait for other elements of policy to fall into place and certainly should not wait until a crisis breaks out

before attempting to intervene on these types of issues. The Kargil crisis of 1999 shows that crises can emerge quickly after changes occur in the nuclear status of India and Pakistan and, indeed, can arise even when it appears that relations between the two are improving. One recent simulation exercise on South Asia involving regional participants and including escalation to the nuclear level concluded that engagement by the international community, including the United States, was of little use in stabilizing the conflict or preventing escalation if such engagement occurred only after the crisis had begun.²

Issues and Policy Recommendations

The following discussions explore the escalation issues and risks at play in each of the scenarios presented in chapter 4, along with recommendations for policy initiatives that the United States should take to head off similar crises.

Kashmir and Low Level Force Postures

The first crisis scenario outlined in chapter 4 is the closest to the situation on the ground today. As noted in chapters 2 and 4, there is reason to believe that both India and Pakistan might not move much beyond their current doctrines and force structures for at least part of the study period – through 2015. In addition, it is fairly safe to assume that the Kashmir dispute will not be settled any time soon. In fact, the fighting in Kashmir, and the rhetoric from both sides about it, has only escalated during the U.S.-led war in Afghanistan, thereby showing that it is never clear what will trigger a crisis or how outside intervention in the region will play out. Therefore, this scenario, and the escalation issues identified in it, provides the ideal starting point for considering U.S. policy prescriptions in the near term.

The first key issue in heading off a crisis involving Kashmir that could escalate to nuclear use is the possibility that Pakistani decision makers believe that their nuclear deterrent provides a cover for a low-intensity conflict strategy against India. As outlined in chapter 4, Pakistan could continue this strategy and at some point attempt a reprise of the 1999 Kargil crisis. To help avert this possibility, the United States needs to address the dangers of this type of strategy with Pakistani decision makers as part of a broader, regular dialogue on security issues. In these discussions, which must be at senior levels and regularly held, one point that must be emphasized is that the United States will not support Pakistan if such a strategy is attempted. Basically the point must be made that the United States will react as it did in the 1999 Kargil conflict or indeed more strongly. The United States should debunk any myths that the Pakistani civilian leadership “sold out” to Washington and that absent that, Kargil would have been a great military and political success. This tough talk will not be easy, but it is part of a dialogue that is necessary to re-establish serious connections with the Pakistani government on both the military and civilian sides. It will be particularly difficult, as noted above, if Islamabad comes to believe that the United States needs it more for the war on terrorism than Islamabad needs Washington for overall political, economic, and military support.

A second policy remedy that may help soften the strong no-support language if Islamabad continues to pursue the insurgency option is one of discussing with Pakistan the broader conventional balance between Pakistan and India. Again, in the context of regular, high-level dialogues, the United States should begin an exchange of views on the current and future

conventional balance between Pakistan and India. In these dialogues, the United States should have three goals. The first is to provide a forum for Pakistan essentially to set forth its perspectives on India and feel that it has the ear of a strong friend. Second, the United States should, through presentations of its own views and analyses, seek to knock down unreasonable or unrealistic assessments by Pakistan of either its own prowess or Indian capabilities. In particular, the United States should focus on countering assessments that have political appeal among more radical factions within Pakistan who advocate jihadi strategies or tactics against India. Even if some of these groups are either rounded up or discredited as part of Musharraf's policy of supporting Washington against terrorism, strong feelings about and against India are likely to prevail in broad sectors of Pakistani opinion. Finally, the United States should use these dialogues to begin to identify an agreed set of defensive deficiencies in Pakistan that could potentially be remedied by a renewed military supply relationship with the United States. While the renewal of such a relationship has begun in the wake of September 11, it needs to be carefully assessed on an ongoing basis to ensure that it serves not just the short-term purpose of rewarding Pakistani cooperation on terrorism but that it contributes to raising the nuclear threshold between Islamabad and New Delhi. In any dialogue and in the event of a renewed military supply relationship, it should continually be made clear that the United States is in no way giving a green light to Pakistan for escalation in Kashmir and, in fact, that Washington expects just the opposite to occur.

A third policy remedy for a Kashmir-based scenario is more active engagement on the part of the United States in pushing both sides for

a negotiated solution to the issue. While an agreed solution to this long-standing dispute would seem an obvious way to head off the entire problem, it should not be expected that stepped-up U.S. engagement would lead to this in the short or medium term. Rather, in terms of stability, the goal of the increased U.S. activity in seeking a solution to Kashmir is to keep Pakistan from believing that it has no option other than the use of force. In addition, the United States should press India not to create what Pakistan may see as facts on the ground that preclude a negotiated solution. Such efforts are likely to make India somewhat uncomfortable, but countervailing dialogues with India both on its relations with Pakistan and on a broader range of strategic issues will likely soften New Delhi's stiffness.

A second key issue in heading off possible escalation, should a second Kargil crisis take place, involves Indian and Pakistani perceptions of the nuclear threshold. The paradox in this type of scenario is that in order to promote nuclear stability, the views held by each country should end up being the exact opposite of the other's. To have India refrain from actions that might cause Pakistan to cross the nuclear threshold, New Delhi must believe that Pakistan's threshold for nuclear use is fairly low or at least it must be uncertain about exactly where the threshold lies. To keep Pakistan from using nuclear weapons, Islamabad must be confident enough in its capabilities (including their survivability) to have its threshold be fairly high.

The policy solutions for this situation are not terribly clear cut, but again they begin with a more serious dialogue between the United States and the two antagonists – one that starts well before any future crisis erupts. In a U.S.-Indian bilateral dialogue aimed at promot-

ing stability and managing perceptions of the nuclear threshold, the goal should be for India to believe that Pakistan's threshold for nuclear use is low. In the Kargil II scenario, the point is to keep India from engaging in conventional escalation that crosses Pakistani red lines, lines that Islamabad has established for itself in deciding whether to use its nuclear weapons. While some Indian government officials and analysts claim to know Pakistan's red lines, they can never be sure that they are right or that the situation may dictate a shifting of those thresholds for Islamabad. The United States should emphasize these uncertainties in dialogues with India and offer to play out scenarios with New Delhi in high-level simulation exercises to test its assumptions and its levels of certainty, focusing particularly on the inadvertent crossing of thresholds. The United States should also point out that two different paths could lead to Pakistani nuclear escalation. First, Pakistan's nuclear threshold could be lower than believed in New Delhi, and an Indian move such as crossing the line of control in hot pursuit of insurgents may be enough to trigger a nuclear response. Second, in conducting conventional operations against insurgency-related targets, India may inadvertently degrade Pakistan's command, control, and communications systems (C3), air defense, or the actual elements of its nuclear deterrent (e.g., aircraft, missiles co-located with logistics centers for the insurgency operations). This could lead Pakistan in turn to escalate to the nuclear level, fearing that its deterrent capability was being rapidly eroded.

On the Pakistani side, the concern is that Islamabad's low nuclear threshold will be low due to its small nuclear force and India's conventional superiority. In view of these two factors, Islamabad could believe that it is in

a "use it or lose it" situation in a crisis such as this one. Therefore, in addition to more general reassurances about the conventional military balance, future U.S.-Pakistani dialogue on security matters should focus on raising Pakistan's nuclear threshold. Specifically, the United States should walk Pakistan through the difficulties that India is likely to encounter in targeting Pakistan's nuclear weapons, particularly those mounted on mobile missiles. While not going too deeply into intelligence matters on Indian capabilities, the United States can discuss its own difficulties in countering mobile missile systems, drawing on its experiences hunting for SCUDs in Operation Desert Storm. While both India and Pakistan are aware of these issues, they may not have sufficient information to perform rational analyses and they each certainly overestimate the capabilities of the other side. The point in this exercise is to reassure Islamabad that it has very little reason to panic in a crisis if its forces are mobile and dispersed.

Of course, Pakistani fears could have another source – worry about a decapitating Indian strike at command and control assets. For this reason, and because of the importance of command and control in preventing unauthorized launches, another element of the U.S.-Pakistani dialogue should focus on command and control. The discussion should draw on the rich store of lessons and experience that the United States has had in handling both its strategic systems and, more relevant to Pakistan, in the command and control of tactical systems deployed during the Cold War in Europe as part of the U.S. commitment to NATO. Obviously, the United States cannot pass on details of its own arrangements, and similarly Pakistan is not going to reveal all of its procedures and capabilities in the C2 area,

but a discussion of principles, issues, concerns, generic solutions, and procedural and technical fixes is certainly possible. The dialogue can lay the groundwork for possible future technical assistance with command and control if it does not contravene existing U.S. laws or obligations. If such assistance is deemed essential, then it may become necessary for the executive branch to propose changes to domestic laws or negotiate for exceptions to any international obligations. The goals of a C2 dialogue, then, would be twofold. First, it should provide information that would lower Pakistani anxieties about an Indian decapitating strike, thereby raising their nuclear threshold and lengthening decision-making time in a crisis. Second, the dialogue would seek to strengthen technical and procedural controls on weapons to limit the possibilities of an unauthorized launch, particularly with dispersed weapons. The details will be important here as the goals are security and stability, not enabling Pakistan to keep its forces on a hair-trigger alert (a possible perverse result of providing certain types of C2 assistance).³ This command and control dialogue may not necessarily be replicated with India, as Pakistan's concerns are different because of its geographic situation, its overall strategic inferiority to India, and its consequent adoption of a first-strike doctrine. In other words, this set of initiatives is probably best approached as a set of bilateral talks, the United States with Pakistan and, separately, the United States with India. One set of quid pro quo that the U.S. might require in order for higher-order technology release in this area would be certain restraints on the buildup of forces and the securing of forces and materials in ways that make them difficult either to steal or to use without authorization. Fall 2001 discussions between the United States and Pak-

istan about the security of its nuclear weapons and materials produced no agreements, but it is not clear whether any carrots were offered.

A fourth issue in this scenario is the decision about an Indian response if Pakistan used its nuclear weapons in a very limited, demonstration strike after Indian conventional escalation. Indian analysts and policy makers have stated that any Pakistani nuclear use would be met with overwhelming retaliation, essentially destroying Pakistan as a functioning state. Such statements are sensible declaratory parts of a deterrent policy as they are both credible and extremely daunting. Indeed, if Pakistan were ever to use even a single nuclear weapon against an Indian target (even if it were military forces in the field), the political pressure on New Delhi for a large-scale retaliation would be enormous. The time to temper this pressure is well before any crisis breaks out and decision makers must contemplate their limited options in the glare of the public eye and under time constraints. To do this, the United States should engage with India in a series of simulations that walk through the consequences of nuclear strikes, both by Pakistan and by India in retaliation. These simulations should walk through the political, economic, environmental, and humanitarian consequences of nuclear use for both India and Pakistan. While aware of these consequences in general terms, such information is not widely known either in policy-making circles or in the general public. The goal is to provide Indian decision makers with a clear sense of the alternative consequences of acting, not acting, or responding at different levels of force. No option is without its costs, and the United States should not necessarily seek to force more serious consideration of one or the other. It should, perhaps under the

Recommendations for Low Force Postures and Kashmir Scenarios

India	Pakistan
<ul style="list-style-type: none"> · Political-Military Dialogue <p><i>Themes</i></p> <ul style="list-style-type: none"> - Uncertainty of Pakistani red lines - Broader strategic cooperation with the United States – shifting focus from Pakistan - Specific implications and downside risks for India of nuclear use on Pakistan <ul style="list-style-type: none"> · Bilateral (U.S.-Indian) simulations and exercises to highlight escalation issues · Discussion and technology transfer to improve Indian detection and analysis of WMD use · Increased U.S. involvement in pursuing diplomatic solution to Kashmir 	<ul style="list-style-type: none"> · Political-Military Dialogue <p><i>Themes</i></p> <ul style="list-style-type: none"> - Debunk myths on Kargil 1999 outcome and blame - Nonsupport for a second Kargil-like crisis - Regular exchange on Pakistani-Indian conventional balance - Command and control dialogue (including safety, security issues) - Reassurance on survivability of arsenal - Specific implications and analysis of downside risks of nuclear use <ul style="list-style-type: none"> · Bilateral (U.S.-Pakistani) simulations and exercises to highlight escalation issues · Regular joint defense assessments · Increased U.S. involvement in pursuing diplomatic solution to Kashmir · Provide technical assistance to bolster C2 capabilities consistent with safety and security goals · Deepen/renew understanding of Pakistani military through increased International Military Education and Training programs and exchanges

rubric of discussions about consequence management, walk through the various problems that would come about for India from essentially destroying Pakistan.

A second policy proposal to lower the chance that India would automatically retaliate, or would do so on a massive scale, involves enhancing India's ability to detect and analyze explosions that occur during wars or crises. In other words, the United States should assist India in improving its capability to determine whether a nuclear weapon has been detonated and if so, its location and yield. During crises, it is possible that the use of conventional munitions mounted on ballistic missiles could be mistaken for nuclear munitions. This could lead to preparations for a nuclear response. Additionally, the size and scope of a potential Indian nuclear response

could be based on its assumptions about the size, scope, and target of a Pakistani first strike. Improving India's ability to have accurate information about such a strike could have a deterrent effect on its potential retaliation.

The final escalation issue in a Kashmir scenario with low force structures is the pressure on Pakistan, due to its relatively small and potentially vulnerable nuclear force structure, to choose an all-out attack rather than a limited demonstration use. Again, the issue here is working on Pakistani decision makers' calculus of what would be a better outcome for their country. Similar to the discussion that the United States should have with India about its choices of retaliation type and scale, the United States should engage in such discussions with Pakistan, noting the significant downsides of

any nuclear use in terms of such factors as the likelihood of Indian retaliation, the fallout potential for Pakistan, and the international stigma that would result (assuming Pakistan survived as a functioning state). Similarly, the United States should conduct simulation exercises with Pakistan that sketch out the differing outcomes of a war with India where the two countries use nuclear weapons and where they do not. A conventional defeat for Pakistan, as disastrous as it may appear, is ultimately reversible and survivable whereas a nuclear exchange could have far more devastating consequences for either side. While the situation of Kuwait after its occupation by Iraqi forces in 1990 is not a perfect analogy, it should be emphasized to Islamabad that conventional defeat does not equal annihilation in scenarios such as those sketched out in chapter 4.

Nuclear Exercises and Medium Force Postures

This scenario, outlined in chapter 4, could occur as the force structures of the two sides evolve over time. As soon as significant military exercises are held involving short-range missiles and as exercises (whether command post or field exercises) begin to take place using each country's longer-range delivery systems, the possibility exists for mistrust, misreading, over-reaction, and escalation. Therefore, policy solutions aimed at heading off such potential for escalation must be in place before such exercises become routine. Remedies for escalation in this type of scenario involve traditional CBMs designed to improve transparency about conventional military exercises and more specific discussion about the capabilities of nuclear weapons used in a tactical, warfighting mode. Again, the United States has significant experience in both of these areas, and this experience should be systematically shared with both

India and Pakistan in an effort to avert future crises that could arise out of exercises. This type of crisis, and the measures designed to head it off, goes well beyond previous discussions about missile test notifications.

At the very least, the political-military dialogues that the United States should hold with each side should address the general utility of nuclear weapons in a tactical role. Drawing on U.S. experience in Europe during the height of the Cold War, Washington should make clear to each side that the number of tactical nuclear weapons required to make a real difference on the conventional battlefield is very large. Those numbers are well beyond what either side is either planning or could manufacture in any reasonable timeframe. While each side is aware of this in terms of its own planning, the tendency is to worst-case the other side's capabilities and intentions in this area. The message should be one of reassurance. If either side sees delivery vehicles on the other side during an exercise that could be nuclear capable, they should not worry. Neither side has the numbers, the targeting information, or the tactical doctrine to use nuclear weapons in a militarily significant manner on the conventional battlefield.

Given that Pakistani and Indian exercises over time will involve new elements (ballistic missiles – regardless of the warhead in question – different command and control schemes, and enhanced reconnaissance capabilities), uncertainty and concern are likely. To attempt to head off such worries, particularly as they could increasingly affect decisions about nuclear weapons use, the United States should actively support the establishment of a more robust mechanism for notifying, discussing, and monitoring exercises. As with all of the recommendations in this chapter, the concept is to begin

small and build over time. Similarly, discussions and mechanisms of this sort should build on current agreements, adding depth, complexity, and monitoring capabilities to those measures already agreed to but not yet implemented on a regular basis. Many proposals for such CBMs already exist, both in agreements signed by India and Pakistan and in various nongovernmental and expert forums.⁴ What they have lacked in the past has been systematic and high-level political support by the United States and a place for them as a centerpiece in discussions with India and Pakistan. Even this type of pressure by the United States may not suffice to get agreements implemented systematically, but without it, the political will in the region is likely to be found lacking.

With U.S. diplomatic support and consistent with agreements made at Lahore, the two sides should first be encouraged to meet regularly and discuss what current and future elements of exercises would raise the most worries. The discussion could then move on to questions of whether those elements could either be eliminated or could be notified in advance and monitored more comprehensively to ensure that they did not mask attack preparations. The United States should offer monitoring technology, beginning with demonstrations and ending with offers of discounted transfers if one or both sides are interested. Given the ambivalence in the region about past CBM efforts, the U.S. should try to encourage a competition between the two sides, seeing for example which would be the first to invite the U.S. to demonstrate its Open Skies aircraft capabilities on a national exercise.⁵ Finally, if either or both sides are actually contemplating making some of its shorter-range missile systems dual- or tri-capable, the United States should step up its offers of discussions of safety,

security, and command and control issues for systems of this type.

In consultation with both India and Pakistan, the United States should also explore whether certain elements of their nuclear forces can be subjected to monitoring to lower the chances for deployment races occurring during exercises or other crises. Ironically, the chance for competitive spirals of increasing readiness is particularly strong if each side keeps its force at a relatively low level of readiness and has warheads unassembled and geographically separated from delivery systems. Information exchange and monitoring must be done in ways that do not invite preemption. In other words, gathering all warheads and bombs in a single place and providing for transparency as to its location and status would provide a high degree of confidence that the weapons were not being moved or mated to delivery systems, but it would also be an ideal target for preemption. Therefore, remote monitoring techniques and limitations on the data shared (including exact location) would have to be adopted. Such types of systems have been explored in the United States for use in U.S.-Soviet/Russian arms control regimes and have also been explored for use in South Asia.⁶ What the United States has not done is to put its diplomatic weight, as well as resources and technology, behind such an endeavor to ensure that it gets off the ground and is used on a sustained basis. Such a move would not only provide incentive for the two states to consider the measures seriously; it would also cushion efforts from the ups and downs in relations between India and Pakistan, a phenomenon which has destroyed several promising starts at more systematic confidence-building and security measures.

One way to increase the chances that nuclear stability measures are more systematically and rigorously applied is to have them linked to

Recommendations for Medium Force Postures/Exercise Scenario

India	Pakistan
<ul style="list-style-type: none"> · Politcal-Military Dialogue <div>Themes</div> <ul style="list-style-type: none"> - <i>Same as low posture, plus discussion of low utility of nuclear weapons in a tactical warfighting mode</i> - Regular discussion (bilateral between antagonists or with U.S. participation) on specific exercise concerns <ul style="list-style-type: none"> · Enhanced exercise notifications and information exchange · U.S. monitoring technology demonstration (e.g., <i>Open Skies</i>) · Exploration of remote monitoring of nuclear weapons sites · Establishment of permanent, joint risk-reduction center 	<ul style="list-style-type: none"> · Political-Military Dialogue <div>Themes</div> <ul style="list-style-type: none"> - <i>Same as low posture, plus discussion of low utility of nuclear weapons in a tactical warfighting mode</i> - Regular discussion (bilateral between antagonists or with U.S. participation) on specific exercise concerns <ul style="list-style-type: none"> · Enhanced exercise notifications and information exchange · U.S. monitoring technology demonstration (e.g., <i>Open Skies</i>) · Exploration of remote monitoring of nuclear weapons sites · Establishment of permanent, joint risk- reduction center

a permanent joint center that acts as a monitoring center and clearinghouse for information. Such a center, or centers (one in each country but linked and having joint manning), would be similar to the nuclear risk reduction centers set up by the United States and the Soviet Union near the end of the Cold War but would handle conventional as well as nuclear information exchanges and monitoring tasks. Again, sustained U.S. interest in such a venture combined with a willingness to act as a lead fund raiser and provider of technology are key to making such an approach work and shielding it from the inevitable political strife in the region. This is a considerable undertaking politically for the two states and is likely not to be a realistic policy option until extensive discussions have taken place both bilaterally between the United States and each country and also between India and Pakistan.

Strategic Surprise and High Force Postures

At almost any level of force posture, it is possible for strategic surprise to occur. In the

India-Pakistan context, strategic surprise can be particularly destabilizing. As shown in the notional scenario in chapter 4 where strategic surprise occurs at high force postures, the reaction of the side that is surprised can range from ratcheting up the arms race yet another notch to sudden preemptive action to counter what it perceives to be a disastrous and potentially irreversible shift in the strategic balance of power. It is impossible by definition to anticipate strategic surprise, so policy remedies are limited. However, it is clear in mapping out possible trajectories of nuclear or strategic arsenals on both sides what some particularly destabilizing acquisitions could look like. As noted in chapter 4, Pakistan has already strongly hinted at what it would consider destabilizing when it proposed to India a moratorium on the acquisition and deployment of SLBMs or ABM systems.

What any policy remedy is looking to achieve in this case is both to reduce the probability of strategic surprise and to tone down any reactions to it. For the United States,

Recommendations for High Force Posture/Strategic Surprise

India

- Political-Military Dialogue

Themes

- Same as lower force structure levels plus transparency on future plans
- Offense/defense dialogue with emphasis on missile defense
- Regular India-Pakistan strategic discussions
- Provision of U.S. strategic early warning of major changes in the military balance

Pakistan

- Political-Military Dialogue

Themes

- Same as lower force structure levels plus transparency on future plans
- Education on stabilizing qualities of certain capabilities
- Offense/defense dialogue with emphasis on missile defense
- Regular India-Pakistan strategic discussions
- Provision of U.S. strategic early warning of major changes in the military balance

this means promoting transparency between India and Pakistan about their nuclear futures. Again, this should be done first in bilateral dialogues between Washington and either New Delhi or Islamabad. Then, the United States should push for serious dialogues at multiple levels between the two antagonists. The goal is to preempt surprise so political pressures for destabilizing responses can be countered. Ideally, if one side were to express a strong enough reservation about a particular capability, the other side would consider foregoing it or would consider adopting other measures to reduce concerns about its unsettling effect on the strategic balance. Of course, this will be difficult with India given that its nuclear force structure and doctrine are not just aimed at Pakistan but also have potential utility against China and are a tool for enhancing New Delhi's world status more generally.

In terms of toning down possible reactions to certain acquisitions, the United States should use its extensive knowledge of nuclear weapons and changes in strategic balances in discussions with both India and Pakistan about how perceived shifts can be remedied in ways that are not themselves destabilizing. In addition, the

United States should be looking to debunk various concerns about certain types of capabilities. For example, it is possible that acquisition of SLBMs or missile defense systems on both sides (depending on the configuration and coverage of the latter) could indeed be stabilizing in the long run, reducing the chances for war in general and for nuclear escalation should conventional war break out. The issue in this type of scenario is how these capabilities are acquired and whether the other side can accept them as stabilizing. Part of this discussion (between the United States and each of the two countries) should be a series of exchanges on missile defense and the ways in which it may enable the two states to pursue stability with relatively low levels of offensive weapons. Finally, the United States should consider adopting a policy of warning India and Pakistan of possible changes in the strategic balance if the United States picks up intelligence that they are going to occur and if Washington believes that the surprise could lead to a particularly destabilizing reaction.

Implementation Strategy

Many of the recommendations above center on dialogue and risk-reduction measures that have

either been proposed but never adopted or have been formally adopted but have failed in their implementation. Talk is cheap and CBMs are more often than not used as confidence-busting measures on the subcontinent. Therefore how the United States goes about pursuing these various initiatives is critical to the chances for their success. Five specific issues have to be addressed in implementing such a strategy to improve chances for success. First, despite the urgency of the issue – nuclear crisis stability – the United States is going to have to move ahead slowly, building a consensus within the U.S. interagency, with Congress, with key international partners, and with India and Pakistan on how to address the question. Second, the United States must tailor its approach to India and Pakistan and recognize that the two approaches will not be the same, because of history, geography, political structure, and doctrine and force structure issues. Third, the United States must work to create and sustain political, military, and economic leverage on these issues with each country. Fourth, the U.S. interagency must be organized around a new comprehensive plan for engagement with these two countries. Finally, the executive branch must construct a public diplomacy strategy that will help build broad support for its new policies in Congress and with key international partners. Each of these issues is examined in detail below.

A Phased Approach

Before September 11, the Bush administration was signaling that it was going to take a significantly different tack on policies toward South Asia and the nuclear question than the Clinton administration. This change has been accelerated because of the September attacks and the subsequent war in Afghanistan. Despite this

desire for a new policy approach and the acceleration that occurred post-September 11, there are limits to how fast and how far changes can go. Many of the suggestions made above require significant detail work before they can be implemented. This analytical work takes time, and finding the necessary resources to implement certain policy decisions also takes time and requires building political consensus in the interagency, with Congress, and with key international partners (see below). In particular, the focus on the war on terrorism will drain ideas, resources, and manpower that will be necessary to develop a long-range and comprehensive policy to address the nuclear stability part of new U.S. policies toward South Asia. Moreover, the United States still has much work to do in turning around the nature of its cooperation and dialogue with both Pakistan and India. A greater degree of trust has to be built with each. While Islamabad is no doubt thrilled with the positive attention it has been receiving from Washington after September 11, it retains the residual fear that it will be abandoned by the United States yet again, as it was in 1990, when its cooperation on Afghanistan is no longer seen as being so urgent. At the outset of the Bush administration, India was hoping to benefit from a new and broad relationship with Washington. While still hoping to develop such a relationship, New Delhi is more cautious about Washington because of what it sees as an overly eager courting of Pakistan as a partner in the war on terrorism. New Delhi continues to point out that it is the victim of terrorism in Kashmir and that the Pakistani government is its sponsor. If, after the war in Afghanistan winds down, the United States does not engage on this core issue for India, it may prove difficult to build habits of consultation and cooperation with New Delhi.

Therefore new approaches to stability measures will have to be taken slowly with dialogue preceding ad hoc cooperation and ad hoc cooperation coming before institutionalized or systematic measures. In addition, measures that require cooperation (and therefore some degree of trust) between India and Pakistan will have to be introduced slowly and in sync with improvements in overall relations between the two sides. The Agra summit process provides some hope in this regard, but it remains uncertain if it will stay on track. Much has been thrown off by the upheaval in the region in the fall of 2001, and it is unclear whether and how the dialogue will get back on track. Finally, some of the more institutionalized measures, such as risk reduction/crisis management centers, will require discussion, design, funding, construction, and training for staff, so a phased approach will be required.

Tailoring Strategies and Approaches

As made evident throughout this study, the nuclear doctrines and force postures of India and Pakistan have significant differences requiring varying measures and approaches. For example, Pakistan's first-strike doctrine makes a discussion and possible exchange of information or provision of technology on command and control more central than with India, where a more leisurely second-strike posture and doctrine mean that simpler measures may suffice. What is offered to one country, either in terms of topics for discussion or technical assistance, does not have to be identical to what is offered to the other. For political reasons, it will have to be perceived as having a rough equity in terms of the level of the dialogue and the value of what is being offered, but exact parallelism would

severely limit what the U.S. could accomplish with either country.

Similarly, the implementation of the measures will require different approaches. For a start, the interlocutors on these subjects will likely be different in each country. In Pakistan, civilian political leaders will have to be engaged once they are restored to power, but the focus will be on the military as they will have the predominant role in making national security policy for the foreseeable future. In India, at least in the short to medium term, the civilian leadership is the primary target audience for dialogue and exchange, and the military is secondary. In both countries the technical scientific community must be engaged as well, but again the channel through which the United States must go to link up with that group will be different.

Creating and Sustaining Leverage

A strategy focused on improving stability, particularly crisis stability, on the subcontinent requires the cooperation of India and Pakistan. As noted earlier, it is not necessarily clear that either side sees this as an urgent issue. New Delhi may view discussion of these issues with Washington, and indeed even with Islamabad, as a necessary evil while not being interested in pursuing any of the remedies seriously because it simply views it as a problem. Islamabad, on the other hand, may be very eager to engage on these issues as a way to ensure staying in Washington's good graces, but like New Delhi, may have very little actual interest in pursuing stability measures seriously. Moreover, domestic politics in both states may limit the realm of the possible in publicly visible cooperative measures. Given this context, how is Washington going to create and sustain leverage on these issues, particularly given that it will be

engaging with these countries on various other issues at the same time (such as terrorism, trade, intellectual property rights, and democracy)?

The Bush administration has already determined that sanctions, at least of the types that were applied to India and Pakistan after the nuclear tests, were not useful. Indeed more generally the Bush administration is doubtful that sanctions will produce many useful results at all. Indeed, in the area of nuclear stability, cooperation of the parties in question is essential, so incentive packages are more sensible than sanctions. These incentives should be tailored to the country and issue in question and should be explicitly linked to actual adoption of certain measures to ensure implementation – a perennial problem in the region. For example, a resumption and expansion of the International Military Education and Training program (IMET) for Pakistan should include a requirement that a certain percentage of the courses or participants focus on nuclear safety or security issues or on crisis management. Similarly, expanded military supply relationships with either side should hinge on at least some acquisition of technologies that enhance command and control, crisis management, information distribution, or other elements that could contribute to stability in peacetime and in future crises.

It should be recognized that the leverage that the United States will have with the two states will be limited and uneven. The United States is likely to have more influence on Pakistan, at least in the short run, as Islamabad has greater need for sustained, improved relations with the United States and Washington is in a position to limit much-needed funds for Pakistan from the international financial institutions. As noted above, however, reverse

leverage and influence may apply in the Pakistani situation if Islamabad begins to view itself as an essential ally for Washington in the war on terrorism. Over time, as the relationship grows, U.S. leverage on India may increase if only because more linkages will have been established.

Not all sanctions possibilities should be eliminated and indeed congressional interests or legal restrictions may prevent the formal ruling out of some. For example, the nonproliferation sanctions will not be taken off the books, but the president will be able to waive them on a regular basis, as he did in the fall of 2001, as long as Congress is kept on board with the policy. Once the immediate issue of Afghanistan as a safe haven for terrorists is ameliorated, Congress may begin to look harder at waivers on such items absent progress on issues such as nuclear safety, security, and stability. It may be useful to establish certain clear red lines for the re-imposition of current sanctions or the development of new sanctions. These red lines would include the transfer of nuclear technology to a third state or other third party. Another red line would be the explicit threat of nuclear use by either India or Pakistan.

The final element of leverage is simply the political level and frequency of engagement. As noted early in this study, U.S. engagement in South Asia has been sporadic at best, and high-level, sustained engagement has been nonexistent. Regardless of the political system in place in India or Pakistan, much of the question of cooperation with the United States is political. For Pakistan, this means being seen to have connections to a great power that can balance India. For India, it means being seen as being accepted in the circles of the elite in international politics. The United States must

capitalize on these facts of politics and ensure that both India and Pakistan are much more regular destinations for high-level U.S. delegations, that they are brought into our counsels on a variety of issues more frequently, and that they are subject to more attention than they have been heretofore (other than, perhaps, immediately after their nuclear tests). High-level engagement with Pakistan has become the norm since September 11, but the issue will be regularizing it, sustaining it, and refocusing it – once the immediacy of issues in Afghanistan subsides – on nuclear stability issues.

Organizing the U.S. Interagency

Because the United States does not have a long-standing and set policy toward the South Asia region, it has historically not been well organized to implement policies in this region. During times of no crisis when interest was low, policy was driven primarily by the regional components of various elements of the bureaucracy – the State Department, the National Security Council (NSC) staff, and the Office of the Secretary of Defense (OSD). When crises arose or certain functional issues were deemed to be paramount (such as nonproliferation or counterterrorism) then policy making either rose to higher organizational levels – usually with a broader view and responsibility – or was handed over to the functional entity responsible for the issue in question (for example, the nonproliferation directorate at the NSC or the counterterrorism coordinator at the State Department). Left to their own devices with a new policy that focused on nuclear stability and that promoted greater engagement, the elements of the national security-making bureaucracy would each pursue their own parochial interests with a

veneer of nuclear stability as an overlay and justifying rationale.

Therefore, a new policy toward India and Pakistan that emphasizes nuclear stability will have to be led by a strong interagency process that provides clear guidance as to goals and objectives and regularly evaluates progress toward these goals. One way to ensure that such a process reaches throughout various parts of the bureaucracy is to conduct a comprehensive review of all elements of policy related to the two countries. Existing policies should be updated to reflect top-level guidance as to the new U.S. strategic goals for the region and for each country individually. Good examples of this are the various export control guidelines and limitations on military contacts and interactions that exist for both India and Pakistan. While some of these restrictions are the result of nuclear testing-related sanctions legislation that may be loosened or lifted entirely, other restrictions and guidelines are a continuation of policies left over from the time when the United States was not seeking to expand its relationship with India or when the United States was seeking to keep both countries from acquiring nuclear capabilities. What is needed is a sunset review of these restrictions to ensure that new initiatives are not stymied by old rules that no longer conform to new overarching policy guidance or realities on the ground. The timing for such a review should be ideal in the wake of an eventual wrapping up of the military phase of the war on terrorism in Afghanistan. The United States will then be shifting to a longer-term policy of engagement in the region, with the goal of ensuring no resurgence of terrorist activity at the top of its agenda. A more comprehensive look at how best to shift policy gears from crisis to long-term management should include issues

related directly to nuclear stability as well as terrorism.

The policy process should be under the direction of the National Security Council staff, both to ensure that parochial interests of any of Washington's bureaucratic players do not dominate but also to show a high level of political interest. This in turn will assist in getting the best possible responses from both India and Pakistan. Under NSC direction, delegation of implementing authority will have to vary for Pakistan and India and specific guidance will have to be provided as various agencies and experts are engaged. One valid concern expressed by nonproliferation supporters is that an engagement policy will let loose various elements of the bureaucracy like unguided missiles. Each will engage, provide untailored set-piece briefings, and advance its parochial interests without necessarily advancing the central policy interests. Again, specific guidance will have to be set out and regular reviews conducted of programs to ensure that they are advancing the higher-order goals set by the president.

The Defense Department in particular will have to adjust its usual temptation to delegate most engagement activities to the regional CINCs for three reasons. First, issues related to nuclear stability in Pakistan, which is in the United States Central Command's (CENTCOM) area of responsibility, may simply be too much to add to the already full plate of the current CENTCOM commander. While intentions may be good and history has shown that intervention by the CENTCOM commander can be useful, the fairly full list of operational responsibilities in the war on terrorism and in the Gulf means that CENTCOM simply may not be up to taking on too many new responsibilities for nuclear stability in Pakistan without

additional resources and/or significant backup in Washington. Second, for India, the United States Pacific Command (PACOM) provides a good start for engagement, but India's civilian-dominated national security structure means that the civilian side of OSD, State, and the NSC must take a much larger role. For nuclear stability policy questions in India, currently, the military simply is not the right address for dialogue. This of course does not mean that the military should be ignored. They may matter more in the future if India moves up the ladder to a more fully deployed nuclear posture, and of course PACOM has other reasons to engage more fully with India. Finally, those other interests of CINCs may not necessarily be related to nuclear stability. They may be interests related to warfighting considerations, counterterrorism, or other operational concerns (port calls, access to facilities). The Washington-based bureaucracy will simply have to keep this in mind and regularly monitor CINC-led activities to ensure that they support both the CINC's warfighting responsibilities and the broader policies on nuclear stability set by the interagency.

Public Diplomacy – Building Support in Congress and Internationally

In order to generate and sustain support for a policy shift that focuses on nuclear stability, the U.S. administration will have to engage in a fairly vigorous public diplomacy campaign, focused on the United States and key allies and supporters. Congressional support will be necessary for any legislative changes that the administration deems necessary. While most sanctions legislation related to India and Pakistan now has national security waiver clauses, if the administration fails to provide an ongoing and cogent rationale for its new policy

as well as evidence that it is working, those waiver clauses could be rescinded or Congress could find other ways to stymie policy. Moreover, congressional support will be necessary to fund new initiatives such as a risk-reduction center or the restarting of old standbys of foreign and national security policy such as IMET for Pakistan. Finally, congressional approval is required for any significant military sale, something that may eventually be desired for both Pakistan and India.

On the international front, the United States will have to engage in some careful explaining to various friends and allies, particularly those who are ardent nonproliferation supporters. On the one hand, the United States simply wants to avoid diplomatic fallout that makes it more difficult to advance its policies. On the other, it may also need financial or political support for some of its initiatives from key foreign governments such as Japan, the UK, and/or France. Understanding about engagement with Pakistan is high in the wake of September 11, but that level of agreement may ebb over time if nuclear and democracy issues are not eventually addressed.

The key themes in such a campaign could be as follows. First, in addition to the obvious issue of terrorism, the United States is refocusing on the most immediate nuclear weapons dangers in South Asia – the chance that those weapons may be used either accidentally or inadvertently during peacetime or a crisis. It is seeking to engage the governments of India and Pakistan to reduce those chances. To this end, the United States is going to use all of its decades of experience with these issues and, where appropriate, share that knowledge with India and Pakistan. Second, in no way does this refocusing mean that the United States has changed its policy on nonproliferation or

will be seeking to modify the NPT to add new nuclear weapons states. Finally, the United States will engage more vigorously in working with the Indian and Pakistani governments to remedy the conditions that caused them to seek nuclear weapons in the first place.

Conclusions

Nuclear weapons are not going to disappear from the subcontinent any time soon. India, Pakistan, China, the United States, and many other states will have to adjust to this reality and adapt their national security policies to it. For the United States this means focusing on what it can do, given this situation, to best advance its national security interests. Such a focus requires a re-balancing of priorities to favor enhancing crisis stability over global nonproliferation. Actively pursuing policies to enhance crisis stability in the region will require a sustained and greatly deepened engagement with both India and Pakistan on a range of issues. It should be remembered, however, that despite a willingness, or even an eagerness, on the part of the United States to re-engage with these two countries and to offer all of the assistance it can to enhance stability on the subcontinent, ultimately it is up to Pakistan and India to establish a *modus vivendi* that lowers the chances for a nuclear confrontation. The United States, as the first nuclear power, and as the world's sole superpower, however, has both the interest and responsibility to do all that it can to assist them in reaching this situation.

Endnotes for Chapter Five

- 1 Douglas Frantz, "U.S. and Pakistan Discuss Nuclear Security," *New York Times* October 1, 2001.
- 2 Bradd C. Hayes, "International Game '99: Crisis in South Asia, January 20-28, 1999," Research Report Decision Support and Strategic Resource Departments of the Center for Naval Warfare Studies, United States Naval War College.
- 3 As noted in chapter 2, however, more and faster are better from the Pakistani perspective in terms of stability, and to some degree an ability to keep forces at a higher level of alert may actually raise the Pakistani threshold for use.
- 4 The most recent official agreement on CBMs is the Memorandum of Understanding signed in Lahore in February 1999, which commits the countries to a range of dialogues and enhancements on existing CBMs. Because of the 1999 Kargil crisis, none of these measures has been implemented. Text of the Lahore documents available at <http://www.stimson.org/cbm/sa/drs/lahore.htm>.
- 5 The concept has been raised in the U.S. nongovernmental community, but it has yet to be adopted by the U.S. government. John H. Hawes and Teresita C. Schaffer, "Risk Reduction in South Asia: A Role for Cooperative Aerial Observation?" Nuclear Risk-Reduction Measures in Southern Asia, Stimson Center Report no. 26 (November 1998), <http://www.stimson.org/pubs/cbm/cbmgen/saaerial.pdf>.
- 6 Kent L. Biringer "Missile Reduction and Monitoring in South Asia," Cooperative Monitoring Center, Sandia National Laboratories, June 2001. This and other papers on the subject available at <http://www.cmc.sandia.gov/Links/regions/regions-mainframe.htm>.

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