

NUCLEAR DANGERS IN SOUTH ASIA

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On May 11 and 13, 1998, India tested five nuclear weapons in the Rajasthan desert. By the end of the month, Pakistan had followed suit, claiming to have detonated six nuclear devices at an underground facility in the Chagai Hills. With these tests, the governments in Islamabad and New Delhi loudly announced to the world community, and especially to each other, that they both held the capability to retaliate with nuclear weapons in response to any attack.

What will be the strategic effects of these nuclear weapons developments? There are many scholars and defense analysts who argue that the spread of nuclear weapons to South Asia will significantly reduce, or even eliminate, the risk of future wars between India and Pakistan. These “proliferation optimists” argue that statesmen and soldiers in Islamabad and New Delhi know that a nuclear exchange in South Asia will create devastating damage and therefore will be deterred from starting any military conflict in which there is a serious possibility of escalation to the use of nuclear weapons. Other scholars and defense analysts, however, argue that nuclear weapons proliferation in India and Pakistan will increase the likelihood of crises, accidents, terrorism and nuclear war. These “proliferation pessimists” do not base their arguments on claims that Indian or Pakistani statesmen are irrational. Instead, these scholars start their analysis by noting

that nuclear weapons are controlled by military organizations and civilian bureaucracies, not by states or by statesmen. Organization theory, not just deterrence theory, should therefore be used to understand the problem and predict the future of security in the region.

These two theoretical perspectives thus lead to different predictions about the consequences of nuclear proliferation in South Asia. Fortunately, a new history of nuclear India and nuclear Pakistan is emerging, a history by which scholars and policy makers alike can judge whether the predictions of the deterrence optimists or the organizational pessimists have been borne out. Unfortunately, the emerging evidence strongly supports the pessimistic predictions of organizational theorists.

There are four requirements for stable nuclear deterrence: prevention of preventive war during periods of transition when one side has a temporary advantage; the development of survivable second-strike forces; the avoidance of accidental nuclear war; and finally the ability to keep nuclear weapons out of the hands of terrorists. Each of these requirements will be examined in turn.

The Problem of Preventive War

Military officers often have biases in favor of preventive war because they believe war is inevitable in the long term and thus it is advantageous to strike first when your state has a strong advantage and the other side is catching up. Pakistan has been under direct military rule for almost half of its existence and the military runs the nuclear weapons program even during the periods in which civilian prime ministers have held the reins of government. Many scholars therefore worry primarily about Pakistani military officers making poor decisions about war initiation.

The preventive war problem in South Asia is not so simple, however, for new evidence suggests that military influence in India produced serious risks of preventive war in the 1980s, despite strong institutionalized civilian control there. The most important example of preventive war thinking influencing Indian nuclear policy can be seen in the 1986–87 Brasstacks crisis. This serious crisis began when the Indian military initiated a massive military exercise in Rajasthan. The Pakistani military, fearing that the exercise might turn into a large-scale attack, alerted military forces and conducted their own exercises along the border, which led to Indian military counter-movements closer to the border and an operational Indian Air Force alert.

The Indian chief of the army staff, General Krishnaswami Sundarji apparently believed that India's security would be greatly eroded by Pakistani development of a usable nuclear arsenal and thus deliberately designed the Brasstacks exercise in hopes of provoking a Pakistani military response. This in turn could then provide the New Delhi government with an excuse to implement existing contingency plans to go on the offensive against Pakistan and take out the nuclear program in a preventive strike.

On page 280 of George Perkovich's book India's Nuclear Bomb, he reports that considerations of an attack on Pakistani nuclear facilities went all the way up to the most senior decision-makers in New Delhi in January 1987.

[Prime Minister] Rajiv [Gandhi] now considered the possibility that Pakistan might initiate war with India. In a meeting with a handful of senior bureaucrats and General Sundarji, he contemplated beating Pakistan to the draw by launching a preemptive attack on the Army Reserve South. This would have included automatically an attack on Pakistan's nuclear facilities to remove the potential for a Pakistani nuclear riposte to India's attack. Relevant government agencies were not asked to contribute analysis or views to the discussion. Sundarji argued that India's cities could be protected from a Pakistani counterattack (perhaps a nuclear one), but, upon

being probed, could not say how. One important advisor from the Ministry of Defense argued eloquently that "India and Pakistan have already fought their last war, and there is too much to lose in contemplating another one." This view ultimately prevailed.

The preventive war problem may emerge again if either side develops ballistic missile defenses. The Indian government has already expressed interest in eventually procuring or developing its own missile defense capability. Given the relatively small number of nuclear warheads and missiles in Pakistan, however, such Indian defenses would inevitably reopen the window of opportunity for preventive war considerations.

Survivability of Nuclear Forces in South Asia

The fear of retaliation is central to successful deterrence and the second requirement for stability with nuclear weapons is therefore the development of secure, second-strike forces. Before the 1998 nuclear tests, proliferation optimists used to assume that second-strike survivability would be easily maintained because India and Pakistan had a form of non-weaponized deterrence and thus could not target each other. It is by no means certain, however, that this condition of non-weaponized deterrence will continue as both India and Pakistan develop advanced missiles in the coming years.

Two organizational problems can be seen to have reduced (at least temporarily) the survivability of nuclear forces in Pakistan. First, there is evidence that the Pakistani military deployed its first missile forces, following standard operating procedures, in ways that produce signatures giving away their deployment locations. The Indian press, for example, has reported that Indian intelligence officers identified the locations of Pakistani deployments of M-11 missiles by spotting the placement of defense communication terminals and wide-radius roads outside special garages.

Second, analysts should also not ignore the possibility that Indian or Pakistani intelligence agencies could intercept messages revealing the secret locations of otherwise survivable military forces, an absolutely critical issue with small or opaque nuclear arsenals. The 1999 Kargil conflict provides evidence of the difficulty of keeping what are intended to be secret operations secret from one's adversary. Throughout the conflict, the Pakistani government insisted that the forces fighting on the Indian side of the LOC were *mujahideen* (indigenous Islamic freedom fighters). This cover story was exposed, however, when some of the *mujahideen* failed to leave their Pakistani military identification cards at their base in Pakistan while others wrote about General Musharraf's involvement in the operation's planning process in a diary that was later captured. Finally, Indian intelligence organizations intercepted a critical secret telephone conversation between General Musharraf and one of his senior military officers, which revealed the Pakistani Army's central involvement in the Kargil intrusion.

The Risks of Accidental Nuclear War

Social science research on efforts to maintain safe operations in many modern technological systems suggests that serious accidents are likely over time if the system in question has two structural characteristics: high interactive complexity and tight-coupling. While the Indian and Pakistani nuclear arsenals are small and not complex, it is also clear, that the South Asian nuclear relationship is inherently tightly coupled because of geographical proximity. With inadequate warning systems in place and with weapons with short flight times emerging in the region, the time-lines for decision making are highly compressed and the danger that one accident could lead to another and then lead to a catastrophic accidental war is high and growing. The proximity of New

Delhi and Islamabad to the potential adversary's border poses particular concerns about rapid decapitation attacks on national capitals. Moreover, there are legitimate concerns about social stability, especially in Pakistan, that could compromise nuclear weapons safety and security.

Proliferation optimists will cite the small sizes of India and Pakistan's nuclear arsenals as a reason to be less worried about the problem. Yet the key from a normal accidents perspective is not the numbers, but rather the structure of the arsenal. Here there is good and bad news. The good news is that under normal peacetime conditions, India, and most likely Pakistan as well, do not regularly deploy nuclear forces mated with delivery systems in the field. The bad news is that they both can quickly initiate nuclear alert operations such as during the 1999 Kargil conflict.

From an organizational perspective, it is not surprising to find evidence of serious accidents emerging in India's and Pakistan's nuclear and missile programs. On January 4, 2001, Indian Defense Secretary, Yogender Narain, led a special inspection of the Milan missile production facility in Hyderabad where a missile was accidentally launched, flying through the body of one official, catching on fire, and injuring five other workers. The false warning incident that occurred just prior to the Pakistani nuclear tests in May 1998 is a second case demonstrating the dangers of accidental war in South Asia. During the crucial days just prior to Prime Minister Sharif's decision to order the tests of Pakistani nuclear weapons, senior military intelligence officers informed him that the Indian and Israeli air forces were about to launch a preventive strike on the test site. Such false warnings could be catastrophic in a crisis whether they are deliberate provocations

by rogue intelligence officers, or genuinely believed, but inaccurate, reports of imminent or actual attack.

The New Challenge of Terrorism

After tragic events of September 11, 2001, no one doubts that terrorists might be interested in killing a lot of people. But it remains worth discussing in our effort to understand how serious is the risk of nuclear terrorism in the future, what is the relationship, if any, between the spread of nuclear weapons to increased numbers of states and the danger that terrorist organizations will get and use nuclear weapons?

Some terrorists, like Osama bin Laden and the Al Qaida network, have been quite open in stating their desire for nuclear weapons. Indeed, after Osama bin Laden declared a Jihad (holy war) against the United States, he was asked about reports that he wanted nuclear weapons and replied, “to possess the weapons that could counter those of the infidels is a religious duty.” Any terrorist leader with this kind of strategic vision is not likely be deterred from using nuclear weapons or radiological weapons against the United States.

Pakistan is clearly the most serious concern in this regard. Prior to September 11th, there were no specialized Pakistani teams trained on how to seize or dismantle a nuclear weapon if one was stolen. No dedicated personnel reliability program (PRP) was in place to insure the psychological stability and reliability of the officers and guards of Pakistan’s nuclear forces.

It was clear after September 11th, however, that this organizational arrangement was an inadequate answer to the vexing question of who would guard the guardians. After Pakistani President Musharraf decided to support the U.S. war against Bin Laden

and the Taliban regime, he forced a number of senior and junior officers of the Inter Services Intelligence (ISI) to leave office because of their ties to the Taliban. This was certainly reassuring news, but it is impossible for the United States (or even President Musharraf) to know many secret Jihadi supporters still exist inside the shadows of Pakistan's military intelligence agencies. Nor do we know how close those shadows fall to nuclear weapons storage sites.

The danger of terrorists gaining access to a Pakistani nuclear weapon is heightened during crises when Pakistan is likely to go on a nuclear alert and disperse weapons from storage sites to make them invulnerable to an Indian attack. Dispersal would, however, make such weapons more vulnerable to attack or seizure by terrorists or terrorists aided by insiders. The existence of vulnerability/invulnerability paradox should provide a strong incentive to reduce threats and crises in South Asia.

Conclusions: Beyond Denial

India and Pakistan face a dangerous nuclear future because they have become like other nuclear powers. Their leaders seek perfect security through nuclear deterrence, but imperfect humans inside imperfect organizations control their nuclear weapons. If my theories are right, these organizations will someday fail to produce secure nuclear deterrence. Unfortunately, the evidence emerging from these first five years of South Asia's nuclear history suggests that this theoretical perspective is powerful and its pessimistic predictions are likely to come true.

An important structural difference between the new nuclear powers and their Cold War predecessors, however, is that each new nuclear power is born into a different nuclear system since other nuclear states exist and influence their behavior. On the one

hand, the ability of other nuclear powers to intervene in future crises may be a major constraint on undesired escalation. On the other hand, this ability may encourage the governments of weaker states to engage in risky behavior—initiating crises or making limited uses of force—precisely because they anticipate (correctly or incorrectly) that other nuclear powers may bail them out diplomatically if the going gets rough.

The possibility that other nuclear states can influence nuclear behavior in South Asia does lead to one final optimistic note. There are many potential unilateral steps and bilateral agreements that could be instituted to reduce the risks of nuclear war in between India and Pakistan and the U.S. government can play a useful role in helping to facilitate such agreements. Many, though not all, of the problems identified in this article can be reduced if nuclear weapons in both countries are maintained in a de-mated or de-alerted state, with warheads removed from delivery vehicles, either through unilateral action or bilateral agreement. U.S. assistance could be helpful in providing the concepts and arms verification technology that could permit such de-alerting (or non-alerting in this case) to take place within a cooperative framework. The U.S. could also be helpful in providing intelligence and warning information, on a case-by-case basis, in peacetime or in crises to reduce the danger of false alarms. In addition, safer management of nuclear weapons operations can be encouraged through discussions of organizational best practices in the area of nuclear weapons security and safety with other nuclear states.

There will be no progress on any of these issues, however, unless Indians, Pakistanis, and Americans alike stop denying that serious problems exist. A basic awareness of nuclear command and control problems exists in New Delhi and Islamabad, but unfortunately Indian and Pakistani leaders too often minimize them. Government

officials in New Delhi sometimes speak as if nuclear safety problems have been successfully addressed, and as for their part, senior Pakistani authorities have claimed that the problem of accidental nuclear war has already been solved.

A first useful step for the U.S. is to accept that nuclear weapons will remain in Pakistan and India for the foreseeable future and that the problem of Kashmir will not be solved easily or quickly. The political problems between the two South Asia nuclear problems may someday be resolved. Until that day comes, the U.S. government has a strong interest in doing what it can to reduce the risk that India and Pakistan will use nuclear weapons against each other.