India: A Nuclear Update

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Summary

Since the 1998 nuclear tests, India and Pakistan have engaged in a slow but steady arms race, gradually consolidating their nuclear weapon infrastructure. In the case of India, there have been three noteworthy developments, all aimed at operationalizing its nuclear arsenal for prompt use. The first is the official announcement of a formal nuclear doctrine and a command and control structure to manage nuclear decisions. The second is the increasing role played by the military and the preliminary efforts at making detailed operational nuclear plans. The third is the continued development of ballistic missiles and acquisition of aircraft to deliver nuclear weapons and preparations to deploy them with nuclear weapons on a regular basis. Such deployment would considerably worsen the already tense security situation, which has been marked by repeated military crises between Pakistan and India, all prominently featuring nuclear threats.

Doctrines and Command and Control

In August 1999 the Indian National Security Advisory Board released the Draft Nuclear Doctrine (DND). Though there is now a brief official nuclear doctrine, the DND remains the most comprehensive semi-official view of India's emerging nuclear posture. Largely patterned after the doctrines and deployment postures of the nuclear weapon states, the DND stated that 'India shall pursue a doctrine of credible minimum nuclear deterrence'. This in turn, according to the DND, required: (a) sufficient, survivable and operationally prepared nuclear forces, (b) a robust command and control system, (c) effective intelligence and early warning capabilities, (d) planning and training for nuclear operations, and (e) the will to employ nuclear weapons. The requirement for India to have "operationally prepared" nuclear forces is usually interpreted to mean deployment of nuclear weapons on delivery vehicles. Deployment of India's nuclear weapons would, according to the DND, involve a "triad of aircraft, mobile land-based missiles and sea-based assets" structured for "punitive retaliation" so as to "inflict damage unacceptable to the aggressor". The DND envisaged an "assured capability to shift from peacetime deployment to fully employable forces in the shortest possible time."

More recently, in January 2003, the Indian government came out with a brief official nuclear doctrine. Though it provides few concrete details, it is significant that the Indian government has, for the first time, claimed the right to a nuclear retaliation to an attack with chemical and biological weapons. In this it appears to be following the lead of the US, which had announced a similar policy a few months earlier. Through this announcement, the Indian government has significantly weakened its earlier No First Use pledge of not using nuclear weapons against non-nuclear states.

As part of the same announcement, the government also declared that a two-layered structure called the Nuclear Command Authority (NCA) had been set up to manage its nuclear and missile arsenals. The NCA comprises the Political Council, chaired by the Prime Minister, and the Executive Council, chaired by the National Security Adviser to the Prime Minister. According to the announcement, the Political Council is the sole body that can authorize the use of nuclear weapons. But it also talked about "arrangements for alternate chains of command for retaliatory nuclear strikes in all eventualities". That is, it anticipates contingencies wherein someone other than the Prime Minister may have to, and will be able to, order the use of nuclear weapons.

The Role of the Military

The January 2003 announcement also approved the appointment of a Commander-in-Chief for the Strategic Forces Command; this is to be the official body that will manage and administer all of India's nuclear weapons. The command is to have representation from all the three armed services; an Air Force officer will be the first

commander. This development is yet another step in the process of nuclear weapons being handed over to the armed forces and their evolution into military instruments.

The armed services have been preparing for this possibility. Following the announcement of the 1999 DND, the three armed service headquarters were reportedly "involved in drawing up detailed schemes for inducting a variety of nuclear armaments and ancillary and support equipment in their orders-of-battle…[and] appropriate command and control frameworks." Subsequently the Indian Air Force publicly announced that it had decided on its operational plans. It has been reported that an internal Air Force document advocated the acquisition of a nuclear first strike capability. This led one analyst to suggest that the Air Force may conduct pre-emptive strikes should it receive strategic warning that "enemy nuclear missiles are armed and ready for launch" and "not wait for them to be up in the sky."

The military is also preparing to induct delivery vehicles for nuclear weapons, in particular ballistic missiles. A special missile regiment has being raised to operate the intermediate range Agni missiles, capable of delivering a nuclear warhead. Military officers have been reportedly undergoing training at the Bhabha Atomic Research Centre to handle nuclear devices. In May 2001 India conducted large-scale military exercises, during the course of which Abdul Kalam, the 'father' of the Indian missile program and the current President of the country, revealed that the armed forces were training to use nuclear weapons.

Delivery Vehicles and Deployment of Nuclear Weapons

As envisioned in the DND, India has been continuing to develop or acquire a triad of delivery vehicles: ballistic missiles, a nuclear submarine and aircraft capable of delivering nuclear weapons.

Among ballistic missiles, the most significant are the Agni series of intermediate ballistic missiles, which are capable of being armed with nuclear weapons. Being solid fueled missiles, they can be quickly fired. Two varieties have been tested so far. Agni-I has a range of 700 km with a 1000 kg payload, which makes it clearly Pakistan specific. Agni-II has a range of about 2000 km with a 1000 kg payload; this is still insufficient to hit major Chinese cities like Beijing and Shanghai that have been touted as potential targets in a war with China. A third, even longer range one, is being developed. India has also developed the nuclear capable short-range Prithvi missile in two versions, Prithvi-I with a range of 150 km range with a 1000 kg payload, and Prithvi-II has a range of 250 km with a 500 kg payload. The army has deployed Prithvi-I. While it is capable of delivering nuclear weapons, it is reportedly not armed with nuclear weapons. Nevertheless, it is significant that in 2002, during the ongoing military crisis, the army was authorized to use it without having to require orders from the political leadership. Since the missile is nuclear capable, the launch of such a missile, or preparations for launch, could potentially be misinterpreted as a nuclear strike or preparations thereof.

India has at least four types of aircraft that could be used to deliver nuclear weapons: the Jaguar, the Su-30MK, the MiG-27 and the Mirage 2000. Analysts have argued that the Mirage 2000 and the Jaguar may be the most suitable for nuclear delivery missions. India has also leased four nuclear capable Tu-22 Backfire bombers from Russia.

India has been continuing to develop a nuclear submarine (the Advanced Technology Vessel) though it is still far away from completion. It has also been developing a submarine launched ballistic missile called the Sagarika. There have been reports that India is planning to lease an Akula class nuclear submarine from Russia.

In terms of nuclear weapons useable fissile material, India is currently estimated to have 300 to 600 kg of weapons-grade plutonium (enough for 60 to 120 bombs). It has two operating plutonium production reactors and the attendant reprocessing facilities. The production capability is estimated at 22-36 kg of plutonium per year. There have been reports that a new, larger, plutonium production reactor is to be constructed but that appears to be still at the planning stage.

Currently neither India nor Pakistan are believed to have mated its nuclear weapons onto missiles and kept them ready for launch. However, they could, should the decision be made, get their nuclear weapons ready and launch within a fairly short period of time – possibly as little as a few hours. This would be reduced with deployment of these weapons on a regular basis. As detailed earlier, India has been proceeding gradually towards this stage. Should India proceed along this path, Pakistan is sure to follow.

Military Crises and Nuclear Threats

One recurring pattern in the many South Asian military crises in recent years has been nuclear threats by Indian and Pakistani leaders, who seem to see this as one way to use their nuclear weapons.

In May 1999, just one year after the nuclear tests, two months of bitter fighting broke out when Pakistani soldiers and Islamic mercenaries occupied a mountain ledge near the town of Kargil, Kashmir. To dislodge them, the Indian army literally and figuratively had to fight an uphill battle, taking heavy casualties in the process. Estimates of the number of casualties range from about 1200 to about 2000. During the Kargil war, Indian and Pakistani officials and ministers delivered indirect and direct nuclear threats to one another no fewer than 13 times.

The most important lesson that Indian leaders have taken from the Kargil war has been that India would have to find ways of waging limited war without crossing the nuclear threshold. In January 2000 Indian Defence Minister George Fernandes declared that the Kargil conflict had shown that the acquisition of nuclear weapons by India and Pakistan had not made conventional wars obsolete. Then Army chief V. P. Malik elaborated on this by predicting that 'The escalation ladder would be carefully climbed in a carefully controlled ascent by both protagonists.' Given the confusion and chaos that would prevail during a war, such ideas would seem to be wishful thinking at best. Malik also said that the decision not to cross the LoC that separates the Indian and Pakistani portions of Kashmir 'may not be applicable to the next war.'

The next military crisis followed the attack of 13 December 2001 on the Indian Parliament in Delhi by Islamic militants. At the height of the ensuing crisis around one million troops, about two-thirds of them Indian, faced each other across the border. According to the Indian Defence Minister, George Fernandes, the Indian military was 'raring to go'. He also warned Pakistan not to consider using nuclear weapons saying 'We could take a strike, survive, and then hit back…Pakistan would be finished'. Pakistan's foreign minister, Abdul Sattar, was quoted as saying that his anxieties were 'mounting not only by the day but by the hour'.

Though it did not develop into war, there are a number of reasons that made the 2002 crisis more dangerous, especially in its implications for Indo-Pak relations in the future. Unlike Kargil where Pakistan is clearly seen to have lost, especially politically, the 2002 crisis is claimed as a victory on both sides. On the Indian side the promise from General Musharraf in January 2002 that he was reining in some of the militant organizations is seen as proof that India's 'coercive diplomacy' worked. Pakistan's case is easier to make – despite the huge buildup of forces by the Indian side and much talk of attacking so-called terrorist camps within Pakistan, India did not actually conduct any military attacks. That a massive military confrontation with strong nuclear overtones is seen as a victory for one side is dangerous enough, but with two viewing it the same way one can expect more of the same in the near future.

There are those in India who see General Musharraf's concessions as not being particularly effective in controlling the militancy in Kashmir. However, their conclusion from this observation is not to call for a different, political strategy but a more aggressive military response, including strikes into Pakistan. This again makes the situation very unstable.

One key difference in the case of the 2002 crisis was that it followed soon after the US decision to unilaterally bomb Afghanistan without going through the United Nations. That led several Indian politicians, media commentators and military personnel to recommend that India follow the US lead and attack facilities in the part of Kashmir in Pakistan. In November 2001, for example, even before the attack on the Indian Parliament, a meeting of high-level Indian army officials recommended going in "for 'hot pursuit' of terrorists in Pakistan-occupied Kashmir and destroy[ing] their training camps."

The 2002 crisis also prominently featured nuclear threats. Jana Krishnamoorthy, President of the ruling Bharatiya Janata Party was the most dramatic when he warned that if a nuclear weapon were used by Pakistan, 'its existence itself would be wiped out of the world map.' Prime Minister Vajpayee reportedly stated that: "no weapon would be spared in self-defence. Whatever weapon was available, it would be used no matter how it wounded the enemy." Indian Army chief S. Padmanabhan warned that if Islamabad dared unleash its nuclear arms, "The perpetrator of that

particular outrage shall be punished, shall be punished so severely that the continuation of any form of fray will be doubtful," and expressed his readiness "for a second strike" since he felt that India had "enough" nuclear arms.

Occasionally these nuclear threats also reveal how policy makers are thinking about their nuclear weapons. An example comes from February 2000, when Prime Minister Vajpayee, in responding to threats of a Pakistani nuclear attack, said: "If they think we will wait for them to drop a bomb and face destruction, they are mistaken." This suggests that despite all the public rhetoric about India having a No First Use of nuclear weapons policy, Indian policy makers have not thought through the full implications of a NFU policy. A strict NFU policy would entail waiting for the bomb to explode before responding.

India and Arms Control and Disarmament Initiatives

While proceeding on this path to operationalizing and enlarging its nuclear arsenal, India has continued to claim that it supports arms control initiatives. This dual posture has been aided by the general slowdown of the multilateral arms control and disarmament process at the CD and elsewhere. Though Indian leaders have claimed to support a Comprehensive Test Ban Treaty, there is practically no likelihood of India signing the treaty because of the US Senate's veto of the treaty and the current administration's opposition to the treaty. While India does maintain a moratorium on nuclear tests, the influential National Security Advisory Board has recommended that if the US resumes nuclear testing, then India should conduct nuclear tests of its own. Earlier this month (April 2003) US government officials confirmed that they had concluded last year that the three organisations charged with India's nuclear weapons programme (the Department of Atomic Energy, the Bhabha Atomic Research Centre and the Defense Research & Development Organisation) had asked Prime Minister Vajpayee to allow them to test three further nuclear devices. Indian officials have said fresh tests may not be technically required for several years but that testing this year would carry little sanction from the US based on its behaviour since the 1998 tests and the US courting of India in its "war on terrorism".

On the Fissile Materials Cutoff, India's position has key similarities to the positions of the US and other NWSs. India, keen to build up its own fissile holdings, is opposed to extending the treaty to cover stockpiles, and is willing only to discuss a freeze on future production. The glacial pace at which FMCT negotiations are going on, coupled with the expectation that there would be major differences of opinion among the countries at the CD, imply that India could continue expressing willingness to participate in the negotiations but continue to increase its fissile material stocks. In addition, "civil" plutonium production could continue under a non-military banner, thus failing to comprehensively address the threat of growing fissile material stocks. For example, India was due to begin construction of its first "commercial-scale" Fast Breeder Reactor (FBR) this month, which "breeds" weapons-usable plutonium. The FBR will not be under IAEA safeguards.