Pakistan's Nuclear Doctrine and Command and Control System: Dilemmas of Small Nuclear Forces in the Second Atomic Age

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Although it emerged as an overt nuclear power by testing nuclear weapons in May 1998, Pakistan is yet to formally adopt a nuclear use doctrine. This article endeavours to construct a proto Pakistani nuclear use doctrine from its declaratory and operational postures, in particular from the statements and interviews of the Pakistani political and military leaders and government officials. Initially reflecting upon its pre-1998 nuclear strategy, which has got critical implications for the post-tests doctrinal contemplation, this article explains Pakistani attempts to develop doctrinal concepts and a command and control structure, and illuminates the dilemmas and challenges Islamabad confronts in doing so. Finally, it provides a brief assessment of the Pakistani doctrine's implications for other small nuclear powers and for crisis stability in the South Asia region.

> *The country's ultimate security lies in the use of atom bomb; it is not a mere showpiece.*
>
> Rao Sikandar, Pakistan's Defence Minister

Introduction

When a state possesses a nuclear arsenal, it has to address and elaborate on two issues to efficiently employ and manage its nuclear weapons. Firstly, it needs to develop a use doctrine that plans how, under what circumstances, and for what purposes such weapons will be used. Secondly, it needs to put in place a command and control system which ensures that nuclear weapons are only used according to the plans elaborated in the nuclear use doctrine, and not in different circumstances or for other purposes. If properly developed, doctrine and command and control system serve the deterrent interest of a state and at the same time help to avoid inadvertent, unauthorised, or accidental use of nuclear weapons.

Both issues have in recent years come under renewed discussion and debate in the context of a gradually evolving second nuclear age.[1] In

[1] On the origins of the second atomic age and its emerging structure, see P. Bracken, 'The Structure of the Second Nuclear Age', *Orbis*, vol. 47, no. 3, 2003, pp. 399-413; P. Bracken, *Fire*

addition to five traditional nuclear powers (USA, Russia, UK, France and China), four new, small nuclear weapons states have emerged by now – Israel, India, Pakistan, and North Korea, and at least one other state – Iran, is widely believed to seriously aspire to build nuclear weapons. While all these small nuclear powers are in the process of developing their nuclear force structures, two key questions that have arisen are: How, when and for what purposes do they plan to use nuclear weapons? And what command and control structures do they plan to build to manage their nuclear forces?

Given the above context, this paper examines Pakistan's attempt to develop its nuclear use doctrine and a command and control system[2] to manage its nuclear weapons and analyses the dilemmas it confronts in doing so. Pakistan is yet to reveal much of its nuclear use plan, let alone adopt a formal nuclear doctrine, and is still grappling with the rudimentary challenges of constructing doctrinal concepts and putting in place a proper command and control structure. However, official statements of the Pakistani government since the 1998 nuclear tests, interviews of officials and political and military leaders, as well as its nuclear operational postures in the last few years do highlight some key aspects of Pakistan's emerging policy about nuclear use, which could provide a rough structure of a proto Pakistani nuclear doctrine. This paper endeavours to put these bits and pieces together to understand the emerging structure of Pakistan's nuclear doctrine and its command and control system. It begins with a reflection on the pre-1998 Pakistani nuclear policy and strategy that had laid the foundation for, and had critical impacts on, Pakistan's post-tests contemplation of a nuclear doctrine.

Rise of Nuclear Deterrence, and Nuclear Use Policy in the Era of Ambiguity

The Pakistani concept of nuclear deterrence is India-specific and aims, first and foremost, to deter Indian *conventional as well as nuclear* aggression. Originally, Zulfikar Ali Bhutto, who served in different capacities, including as foreign minister, in the Ayub Khan government from 1958-1966 and subsequently became president of Pakistan in December 1971, developed a deterrent concept for Pakistan that to date remains valid and forms one of the central pillars of Pakistan's nuclear use doctrine. In *The Myth of Independence*, he argued that modern wars should be conceived of as total

in the East: The Rise of Asian Military Power and the Second Nuclear Age, Harper Collins Publishers, New York, 1999; D. L. Berlin, 'The Indian Ocean and the Second Nuclear Age,' *Orbis*, vol. 48, no. 1, 2004, pp. 55-70.

[2] I have used the phrase "command and control system" instead of "command, control, communication, and intelligence," or even "command, control, communication, computer, intelligence, and information processing." In this regard I am in full agreement with Paul Bracken who views the additional terms as redundant. See, P. Bracken, *The Command and Control of Nuclear Forces*, Yale University Press, New Haven, 1983, footnote 1, p. 3.

wars, and in this type of war Pakistan needed nuclear weapons. He explained:

> All wars of our age have become total wars; all European strategy is based on the concept of total war; and it will have to be assumed that a war waged against Pakistan is capable of becoming a total war. It should be dangerous to plan for less and our plan should, therefore, include the nuclear deterrent.[3]

As the Minister for Foreign Affairs (1963-1966) in the Ayub Khan government, Bhutto repeatedly warned the cabinet that India's ultimate nuclear intention was to build the atomic bomb. He persistently argued that eventually Pakistan would have to 'go nuclear' to thwart the looming Indian nuclear threat, as well as to offset Pakistan's conventional inferiority vis-à-vis India. He became more vocal on this issue following his resignation from the Ayub Khan government in 1966 and, while in opposition (1966-1971), he vigorously pleaded for building a Pakistani nuclear deterrent force on the logic that it was necessary to ensure Pakistan's national survival against the threat of India's nuclear as well as conventional aggression.[4] Bhutto's thinking, as will be analysed below, had far-reaching impacts on Pakistan's nuclear strategy, and on its doctrinal contemplation.

Pakistan, however, did not embark on a nuclear weapons program in the 1960s, although it did adopt a 'nuclear option'[5] posture against the backdrop of India's nuclear activities and its suspicion that New Delhi intended to build nuclear weapons.[6] Islamabad's adoption of such a policy course was clearly reflected in its refusal, along with India, to sign the Non-Proliferation Treaty (NPT) in 1968. This 'nuclear option' posture, as will be illuminated in the following, would evolve into a nuclear weapons program in the aftermath of 1971 Bangladesh war.

Bhutto assumed the presidency of a shrunken Pakistan on 20 December 1971 following the third Indo-Pakistani war. Within months, he took the decision to initiate a nuclear weapons project.[7] This decision was taken

[3] Z. A. Bhutto, *The Myth of Independence*, Oxford University Press, Lahore, 1969, p. 153.
[4] Bhutto's determination to build a Pakistani nuclear deterrent force against the Indian threat was such that at one stage he pleaded: "If India developed an atomic bomb, we too will develop one even if we have to eat grass or leaves or to remain hungry because there is no conventional alternative to [the] atomic bomb." Quoted in B. Chakma, *Strategic Dynamics and Nuclear Weapons Proliferation in South Asia*, Peter Lang, Bern, 2004, p. 136.
[5] Which meant that Pakistan would keep the option of building nuclear weapons open should necessity arise in future.
[6] For example, the former Pakistan Atomic Energy Commission chairperson, Munir Ahmed Khan, said in a recollection that "Pakistan became increasingly apprehensive of India's designs" after the "inauguration of the Canadian-Indian reactor (in 1960)" and then "after the completion of the reprocessing plant (in 1965)." See, M. A. Khan, '1993 - Crucial for Nuclear Proliferation in South Asia,' *The Muslim*, 10 January 1993.
[7] According to Munir Ahmed Khan, who was appointed chairperson of Pakistan Atomic Energy Commission by President Bhutto and who presided over the initial phase of Pakistan's nuclear weapons program, Islamabad took the decision to begin a nuclear weapons program in early

against the backdrop of three specific factors: firstly, it was a direct consequence of the 1971 war where Pakistan's conventional inferiority was demonstrated for the third time, at the cost of almost half of its territory; secondly, Pakistani leaders in general (particularly Bhutto) were convinced that India was determined to build a nuclear arsenal; and thirdly, Bhutto believed that only nuclear weapons could guarantee the national survival of Pakistan against the Indian threat.[8] It is evident that Pakistan's nuclear weapons project was initiated to deter Indian *nuclear as well as conventional* aggression, an aim that endured in the subsequent years and today constitutes one of the central pillars of Pakistan's nuclear use doctrine.

Pakistan began to employ, albeit in an ambiguous fashion, a nuclear deterrence strategy against the perceived Indian conventional threat from the mid-1980s. The first employment, and successfully from a Pakistani standpoint, was during the 1986-1987 *Brasstacks* crisis.[9] It had erupted when Indian Armed Forces began military exercises along the Indo-Pakistani border that seemed to the Pakistani leadership nothing short of India's preparation for surgical operations in the heartland of Pakistan. During the course of the crisis, Pakistan's top nuclear scientist Dr. A.Q. Khan gave an interview to a prominent Indian journalist, Kuldip Nayar, and claimed:

> what the CIA has been saying about our possessing the bomb is correct and so is the speculation of some foreign newspapers … They told us that Pakistan could never produce the bomb and they doubted my capabilities, but they now know we have done it … Nobody can undo Pakistan or take us for granted. We are there to stay and let it be clear that we shall use the bomb if our existence is threatened.[10]

The primary objective of Khan's interview during the course of the crisis was to communicate a deterrent signal to New Delhi, which in Islamabad's view worked and prevented an Indian conventional aggression against Pakistan.

Pakistan again advanced a nuclear deterrent posture in 1990 in the context of a spiralling crisis over the disputed territory of Kashmir, which developed against the backdrop of an acute separatist insurgency in the Indian part of

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1972. See, M. A. Khan, 'Nuclearisation of South Asia and Its Regional and Global Implications,' *Focus on Regional Issues*, Institute of Regional Studies, Islamabad, 1998, p. 11.

[8] B. Chakma, 'Road to Chagai: Pakistan's Nuclear Programme, Its Sources and Motivations,' *Modern Asian Studies*, vol. 36, no. 4, 2002, p. 887.

[9] For a complete account of the crisis, see K. Bajpai, P.R. Chari, P. I. Cheema, S. P. Cohen, & S. Ganguly, *Brasstacks and Beyond: Perception and Management of Crisis in South Asia*, Manohar, New Delhi, 1995

[10] K. Nayar, 'Pakistan Has the Bomb,' *The Tribune* (Chandigarh), 1 March 1987. A.Q. Khan later denied that he gave an interview to Nayar, probably because of the worldwide diplomatic uproar it triggered, which created diplomatic pressure on Islamabad. But Mushahid Hussain, editor of the Pakistani English news daily The Muslim, who had accompanied Nayar, confirmed in an editorial that the interview indeed did take place. See, M. Hussain, 'Bomb Controversy,' *The Muslim* (Islamabad), 3 March 1987.

the territory.[11] Reportedly, New Delhi planned for surgical air strikes against the militant training camps inside Pakistani territory, which prompted Islamabad to assemble a crude nuclear bomb and modify several American supplied F-16 aircrafts for its delivery.[12] The crisis was eventually averted through diplomatic intervention from Washington, but Islamabad firmly believed that Pakistan's deterrence posture prevented India from carrying out the planned strike. This crisis also marked the emergence of a nascent mutual nuclear deterrence in the Indo-Pakistani context.[13]

During the pre-tests era, Pakistan revealed almost nothing of its nuclear use plan or doctrine as it pursued a policy of nuclear ambiguity; it might even be that it did not seriously contemplate a nuclear use doctrine during this period. What did emerge during this period, primarily in the context of the 1986-87 Brasstacks crisis and the 1990 Kashmir episode, was a general notion of nuclear deterrence, which implied that Pakistan would use nuclear weapons to counter India's nuclear as well as conventional aggression. Beyond this, little is known about the employment, deployment, and development of the Pakistani nuclear capabilities during the pre-tests era.

It is also not clear what command and control structure Pakistan developed to manage its nuclear assets before the 1998 nuclear tests. There are no authentic government source materials that would indicate Islamabad's attempt to build a robust nuclear command structure. However, former Army chief of staff General Mirza Aslam Beg has claimed that the Pakistani leadership realised the necessity of establishing a command structure, because

> given the tension, mutual mistrust and suspicion between India and Pakistan, it is dangerously tempting for each to launch an attack before being attacked which could escalate to a nuclear level.[14]

Hence, according to Beg, Z.A. Bhutto had established a National Nuclear Command Authority (NNCA) in the 1970s, which institutionalised the nuclear decision-making and assumed the responsibility of developing a nuclear force structure and appropriate alert posture.[15] It is, however, difficult to

[11] For a detailed background on the development of Kashmir insurgency, see S. Ganguly, 'Explaining the Kashmir Insurgency: Political Mobilization and Institutional Decay,' *International Security*, vol. 21, no. 2, 1996, pp. 76-107.
[12] P. Hoodbhoy, 'Nuclear Deterrence - An Article of Faith,' *The News* (Rawalpindi), 17 March 1993.
[13] Devin Hagerty has concluded: "A strong case can be made that India and Pakistan were deterred from war in 1990 by the existence of mutual nuclear weapon capabilities and the chance that, no matter what Indian and Pakistani decision-makers said or did, any military clash could escalate to the nuclear level." See, D. Hagerty, 'Nuclear Deterrence in South Asia: The 1990 Indo-Pakistani Crisis,' *International Security*, vol. 20, no. 3, 1995/96, pp. 107-108.
[14] General (Retd.) M. A. Beg, *Development and Security: Thoughts and Reflections*, FRIENDS, Rawalpindi, 1994, pp. 156-57.
[15] 'NNCA Responsible for Safeguarding Nuclear Programme, Says Beg,' *The News*, 2 June 1998.

verify Beg's claims in absence of any independent confirmation or authentic government documents. It might be that Bhutto had constituted such a structure to establish civilian authority over the nuclear assets, but he was removed from power through a military coup in 1977, and since then the military has been the most dominant factor in Pakistan's nuclear command and control structure.[16]

Post-1998 Doctrinal Contemplation and the Pakistani Dilemmas

A new chapter in Pakistan's nuclear evolution began with the reactive (to India's) nuclear tests of 28 and 30 May 1998. This dramatic development not only marked the end of the era of deliberate nuclear ambiguity and transformed Pakistan's nuclear identity from an opaque proliferator to an overt, *de facto* nuclear weapons state, it also meant that many of its previous nuclear conceptions and policy orientations - both political and military - would from now on cease to apply. Hence, Pakistan, an overt nuclear power after the tests, needed to contemplate a nuclear use doctrine, and put in place a nuclear command and control structure in order to establish deterrent stability relative to India.

Notwithstanding continuity in some significant policy areas, Islamabad undertook new policy initiatives in the tests' aftermath and gradually began to construct doctrinal concepts that appeared through various operational and declaratory postures, in particular through statements and interviews of political and military leaders. Since 1998, the following key features have emerged and can be construed as a proto Pakistani nuclear doctrine:

i. Indo-centric minimum nuclear deterrence

ii. Principle of massive retaliation

iii. Policy of nuclear first-use

iv. Counter-value nuclear targeting

v. Delegative nuclear command and control structure

While Pakistan is still in the formative phase of constructing doctrinal concepts and testing them, and will certainly go through more trials and modifications, the dilemmas that it confronts in this process are formidable. The following is an analysis of Pakistani contemplation of a nuclear doctrine, its emerging structure and the dilemmas that Islamabad confronts.

[16] S. H. Hasan, 'Command and Control of Nuclear Weapons in Pakistan,' *Swords and Ploughshares*, vol. 9, no. 1, 1994, p. 13.

INDO-CENTRICITY

Pakistan's nuclear policy is primarily India-reactive and its nuclear use doctrine is unmistakably Indo-centric. Since the origin of the nuclear weapons project in the early 1970s, India-specificity of the Pakistani nuclear policy in general and nuclear use planning in particular has remained constant, and, in all likelihood, it will continue to be so at least in the foreseeable future. Pakistan's nuclear doctrine seeks to deter not only India's nuclear threat, it also aims to counter, what Pakistanis perceive to be more pressing, Indian conventional aggression. In Islamabad's view, the Indian threat to Pakistan in the future will be largely at the conventional level,[17] and Pakistan will not 'hesitate' to use its nuclear weapons against an Indian conventional attack.

The root of the India-specificity of Pakistan's defence doctrine dates back to 1947 when the subcontinent was partitioned and two states - India and Pakistan - were created upon the withdrawal of British colonial rule. Pakistani leaders in general have traditionally believed that their Indian counterparts could not accept the partition of the subcontinent and the creation of the Pakistani state. Hence, New Delhi, in Islamabad's view, has always remained bent upon undoing the creation of Pakistan and absorbing it back into the Indian Union at the earliest opportunity. India's military intervention in the internal war of Pakistan in 1971 and the resultant secession of eastern wing to become independent Bangladesh only accentuated Pakistani suspicion about New Delhi's ill intention. Therefore, the Pakistani strategic psyche since 1947 has primarily remained concerned with the Indian threat, and fear of India was the primary rationale for Islamabad's decision in the 1970s to build a nuclear deterrent force. Once Pakistan acquired the capability to produce nuclear weapons, it was viewed by the Pakistani leadership as the ultimate guarantor of Pakistan's national survival against Indian nuclear and conventional threat. Not surprisingly, then, Pakistan's nuclear strategy has traditionally been largely reactive to India's strategic postures, and its nuclear use doctrine today is India-specific. However, this Indo-centricity, to the point of being obsessive, may easily draw Pakistan into an unnecessary arms race with its much bigger neighbour because New Delhi's ambition is much larger and certainly beyond Pakistan. For example, India is poised to build a triad nuclear force

[17] Islamabad certainly took note of India's Defence Minister George Fernandes' formulation of a 'Limited War Doctrine' in a nuclear environment which asserted that nuclear weapons "can only deter the use of nuclear weapons, but not conventional war … The issue is not that war has been made obsolete by nuclear weapons (in South Asia) … but that conventional war remained feasible." See, 'Fernandes Does Not Rule Out Conventional War with Pak,' *The Hindu*, 6 January 2000. Moreover, India's new war doctrine, the so-called 'cold start' strategy, which "calls for hard strikes yet limits them to the point which should not invite any nuclear retaliation" has hardly escaped the attention of Islamabad. On the Indian formulation of the doctrine, see S. Gupta, 'No eyeball to eyeball any more in new war doctrine,' *The Indian Express*, 6 March 2004. For a Pakistani view, see S. Qadir, 'India's 'Cold Start' Strategy,' *Daily Times*, 8 May 2004; and S. Qadir, 'Cold Start: the nuclear side,' *Daily Times*, 16 May 2004.

with land, air and sea-based assets[18]; a force structure that is out of reach of Pakistan's limited resource base.

MINIMUM NUCLEAR DETERRENCE

Minimum nuclear deterrence is claimed by Pakistani political and military leaders to be one of the fundamental features of Pakistan's nuclear doctrine. Prime Minister Nawaz Sharif, for example, stated on 20 May 1999 at National Defence College that "Nuclear restraint, stabilisation and *minimum credible deterrence* constitute the basic elements of Pakistan's nuclear policy…."[19] In a similar fashion, the Defence Committee of the Pakistan government identified minimum nuclear deterrence as a key and an 'indispensable' principle of Pakistan's security doctrine.[20] What was implied in those assertions is that Pakistan would build a small, but credible nuclear force to deter Indian aggression. There was even an attempt in some quarters within the Pakistani establishment to quantify Pakistan's minimum deterrence. For example, Samar Mubarak Mund, who headed the nuclear test team in 1998, posited in an interview with *Dawn* that 60 to 70 nuclear warheads would be good enough for Pakistan to have a credible nuclear deterrence against India.[21]

It is not very difficult to conjecture the reasons behind Pakistan's contemplation of a minimum nuclear deterrence posture. Firstly, it is quite obvious, given Pakistan's limited resource base and financial constraints, that minimum deterrence is the most cost-effective and pragmatic option for Pakistan. Secondly, it is apparent that only a minimum deterrent posture can help avoid a ruinous nuclear arms race with India, and Islamabad is well aware that if a nuclear arms race were to eventuate, it would hurt Pakistan more than its larger neighbour India. Thirdly, it is easier to build an effective command and control system if the nuclear arsenal is small, which suits, as will be discussed later, Pakistani conditions.

Although minimum deterrence entered into the Pakistani nuclear lexicon at a very early stage following the nuclear tests, and was conceived of as a central pillar of Pakistan's nuclear doctrine, subsequent developments indicate that Pakistani leaders probably misjudged its full meaning and implications for Pakistan. First of all, the very approach by Pakistani leaders

[18] The draft nuclear doctrine New Delhi released on 17 August 1999 and formal adoption of a nuclear doctrine in January 2003 highlight this. On this, see H.V. Pant, 'India's Nuclear Doctrine and Command Structure: Implications for India and the World,' *Comparative Strategy*, vol. 24, no. 3 (July-September 2005), pp. 277-93.

[19] 'Remarks of the Prime Minister of Pakistan, Nawaz Sharif, on Nuclear Policies and the CTBT,' National Defence College, Islamabad, 20 May 1999. Emphasis added.

[20] The Defence Committee of Pakistan government, reacting to India's draft nuclear doctrine of 19 August 1999, resolved that despite provocations, Pakistan's nuclear policy would be "solely" determined by the requirements of the country's "minimum deterrent capability." See, 'Pakistan Says Indian Nuclear Plan Threatens Global Stability,' *The News*, 26 August 1999.

[21] Dawn, 3 June 1998. Also, A. Mahmood, 'Need for a nuclear doctrine,' *Dawn*, 19 September 1998.

of conceiving of minimum deterrence in *static* and *quantitative* terms was wrong. As it turned out subsequently, minimum deterrence as a strategic concept and posture could and should be understood in a fluid and dynamic context that might have multiple and constantly changing meanings. As Rodney Jones points out, it is difficult to exactly pinpoint what 'minimum' means in the context of Pakistan (and India); he asks:

> Does "minimum" imply the sufficiency of small numbers of nuclear weapons? Nuclear weapons held in reserve? Low readiness or alert rates of a nuclear force? Renunciation of nuclear war-fighting? Mainly counter-value targeting? Or does the term "minimum" merely make a virtue of today's facts of life in the subcontinent - limited resources, scarce weapons materials, unproved delivery systems, and still undeveloped technical military capabilities?[22]

Doctrinal concepts and nuclear postures are not made in vacuum, they are responses to ever changing strategic circumstances. Following the May 1998 nuclear tests, as the subcontinental strategic ball began to roll, Islamabad quickly realised that minimum deterrence could not be viewed in static term and the force structure and its efficacy could not be based merely on the number of nuclear warheads. The efficacy of a minimum deterrent force, on the contrary, depends on the survivability of limited number of nuclear weapons that would make a retaliatory threat credible. Hence, minimum deterrence needed to be conceived of in a dynamic context and its force structure must be determined by the level of threat that exists at a particular time or in a given context. As a group of Pakistani strategic analysts explained:

> Minimum deterrence has been and should continue to be the guiding principle of Pakistan's nuclear pursuit. Of course *the minimum cannot be defined in static numbers*. In the absence of an agreement on mutual restraints the size of Pakistan's arsenal and its deployment pattern have to be adjusted to ward off dangers of pre-emption and interception. Only then can deterrence remain efficacious.[23]

This realisation also became apparent in government circles. Minimum nuclear deterrence remained "the guiding principle" of Pakistan's nuclear policy, but its essence and characteristics underwent significant modification; as Pakistan's Foreign Minister posited:

> The minimum cannot be quantified in static numbers. The Indian build up will necessitate review and reassessment in order to ensure the survivability

[22] R. W. Jones, 'Minimum Nuclear Deterrence Postures in South Asia: An Overview,' Final Report, Defense Threat Reduction Agency Advanced Systems and Concepts Office, 2001, pp. 2-3; Web: <http://www.dtra.mil/ASCO/publications/southasia.pdf>.
[23] A. Shahi, Z. A. Khan & A. Sattar, 'Responding to India's Nuclear Doctrine,' *Dawn*, 5 October 1999. Emphasis added.

> and credibility of the deterrent. Pakistan will have to maintain, preserve and upgrade its capability.[24]

However this perceptional adjustment did not resolve a key strategic dilemma that confronted Islamabad, since it raised the prospect of the Indo-Pakistani nuclear arms race that Islamabad wanted to avoid by adopting a minimum nuclear deterrent posture in the first place. Pakistan is currently in the midst of two contradictory tendencies: on the one hand, due to resource constraints and in order to avoid an arms race with India, Islamabad intends to keep its nuclear arsenal small and at a possible minimum level, while, on the other hand, to preserve viability and credibility of its deterrent capability, Pakistan needs to respond to India's nuclear build up and constantly review, refine and upgrade its nuclear arsenal, which essentially entails an arms race with India. As a Pakistani analyst argues:

> The size and quality of the deterrent cannot be fixed. It has to be flexible so as to change with time… (but) the requirement of credibility can raise level of minimality. … it is just that need that a nuclear race is made of.[25]

Dealing with this dilemma will be a major challenge for Islamabad in the coming years.

PRINCIPLE OF MASSIVE RETALIATION

Statements of Pakistani officials, political and military leaders indicate that Pakistan has adopted a policy of massive retaliation. Within hours following the nuclear tests on 28 May 1998, Islamabad, against the backdrop of a rumour of an imminent Indian pre-emptive attack, warned New Delhi that an Indian strike would "warrant a swift and massive retaliation with unforseen consequences."[26] Since then, Pakistani leaders have repeatedly indicated massive retaliation to be a key principle of Pakistan's nuclear doctrine. General Pervaiz Musharraf, for example, in an address to the nation during the 2001-2002 Indo-Pakistani military standoff, issued a blunt warning to New Delhi: "We do not want war. But if war is thrust upon us, we would respond with full might, and give a befitting reply."[27] A few days later he repeated the same warning: "Any incursion by the Indian forces across the LoC (Line of Control) even by an inch will unleash a storm that will sweep the enemy."[28]

[24] A. Sattar, 'Pakistan's nuclear strategy,' inaugural address at a seminar on "Pakistan's Response to the Indian Nuclear Doctrine" organised by Islamabad Council for Foreign Affairs and Institute of Strategic Studies, Islamabad on 25 November 1999, printed in 'The Nuclear Debate,' *Strategic Issues*, Islamabad: Institute of Strategic Studies, March 2000, p. 3.
[25] A. Siddiqui, 'Road map to nuclear race,' *Dawn*, 10 October 1999.
[26] 'Pakistan warns India of swift retaliation,' *Dawn*, 29 May 1998.
[27] Pervaiz Musharraf's address to the nation; <http://www.infopakgov.pk/President_Adresses/presidentaddresses-27-5-2002.htm>.
[28] 'We will 'unleash storm' if attacked: vows Musharraf,' *Daily Times*, 30 May 2002

Pakistan's massive retaliation principle has stemmed from two critical factors. Firstly, a massive retaliation threat was conceived of as the best means of warding off the perceived danger of an Indian pre-emptive strike in the immediate aftermath of the nuclear tests. In general, the Pakistani leadership also considered such an approach to be the best way of making nuclear threat credible in the initial phase of Pakistan's nuclear force build up. Secondly, as the weaker party in the Pakistan-India military equation, a massive retaliation posture was, and is still, perceived to be a minimaliser of its strategic vulnerability.

Islamabad's formulation of the massive retaliation principle is quite vague. In particular, it has not clearly stated any triggering events except that Islamabad will retaliate massively if India carries out a pre-emptive strike on sensitive Pakistani targets or undertakes a conventional attack on Pakistani territories. However, Islamabad is yet to clarify where its nuclear threshold in such situations would lie. In the Pakistan-India context, the Kashmir dispute, for example, makes it difficult to define territorial aggression.

Further, at a general level, how efficacious this posture will be in a crisis-prone subcontinent, particularly in the context of the Kashmir dispute, is questionable. A nuclear war between India and Pakistan is more likely through escalation from a crisis than by any pre-planned nuclear strike.[29] The question arises then of how effective Pakistan's massive retaliation doctrine will be in containing escalation during a crisis? Will Pakistan undertake a massive nuclear strike at the beginning of a crisis, or will it do so only in retaliation of an Indian strike? If Islamabad adopts the former posture, it will make nuclear war more likely as both Pakistan and India will be tempted to carry out a first-strike. The second option may prevent this nightmare scenario, but it will invite New Delhi to play the game of brinkmanship at ease, which India indeed did in 2002 by amassing troops along the Indo-Pakistani border.[30] Islamabad is yet to find answers to these strategic dilemmas.

POLICY OF NUCLEAR FIRST-USE

Starkly contrasting India, Pakistan has adopted a policy of nuclear first-use. Rejecting New Delhi's proposal for a joint no-first use pledge in the immediate aftermath of May 1998 nuclear tests, Pakistan's foreign secretary, Shamsad Ahmed, made it clear that it was "unacceptable" to Islamabad and asked whether any such agreement had ever worked in the past anywhere in the world.[31] In simple terms, Pakistan's policy implies that it will not only

[29] This assumption is held in M. Krepon, R. W. Jones and Z. Haider, eds., *Escalation Control and the Nuclear Option in South Asia*, The Stimson Center, Washington, D.C., 2004.
[30] On this, see S. Ganguly and M.R. Kraig, 'The 2001-2002 Indo-Pakistani Crisis: Exposing the Limits of Coercive Diplomacy,' *Security Studies*, vol. 14, no. 2 (April-June 2005), pp. 290-324.
[31] 'India asks Pakistan to accept 'no-first use pact',' *The Independent* (Dhaka), 9 July 1998.

use nuclear weapons in a retaliatory strike, it is also ready to take the lead and use nuclear weapons first to counter Indian conventional aggression.

Two major factors have prompted Islamabad to adopt such a posture. First, a first-strike nuclear force is affordable in financial term and is less cumbersome to build. As first-use policy purports a small nuclear arsenal, it is easier to manage once it is built and its command and control system is less complex compared to a second-strike nuclear force. This is also consistent with Pakistan's policy of minimum nuclear deterrence, another key feature of Pakistan's nuclear doctrine. Second, India's conventional power far outweighs Pakistan's; so a first-use policy is an "equaliser" of this imbalance. Islamabad's policy in this context is reminiscent of NATO's adoption of a first-use policy during the Cold War period against conventionally superior Warsaw Pact forces in the European theatre. Pakistan's structural vulnerabilities - lack of geo-strategic depth, proximity of missile and air bases and storage facilities to international borders and within the range of an Indian pre-emptive conventional strike, further exacerbate Pakistan's military inferiority, which reinforces the Pakistani rationale to adopt a first-use policy.

Pakistan's strategic analysts in general are supportive of their country's first-use posture and the rejection of New Delhi's offer for a 'no first-use' agreement, since they argue that a no first-use policy does not address the security dilemma that Pakistan confronts regarding India's superior military power.[32] As long as war remains possible in South Asia, and asymmetrical conventional capabilities disadvantage Pakistan, Islamabad has to pursue a first-use posture to compensate for its strategic disadvantage. [33]

Despite its adoption of a first-use policy, Islamabad is yet to clearly state the circumstances or the "red lines" that will prompt a Pakistani first-use of nuclear weapons. According to a retired Pakistani air force officer, for example, Islamabad will use nuclear weapons first under the following conditions:

1. Penetration of Indian forces beyond a certain defined line or crossing of a river

2. Imminent capture of an important Pakistani city like Lahore and Sialkot

[32] A Pakistani analyst posits: "…the no first use offer cannot be acceptable (to Pakistan) unless the prospects of war are reduced because of an enormous disparity between the conventional capabilities of two countries." See, A. Mahmood, 'Need for a nuclear doctrine,' *Dawn*, 19 September 1998.

[33] For Pakistani views on India's no-first use policy, see R. Hussain, 'Thinking about Nuclear Use and "No First Use,"' *National Development and Security* (Rawalpindi), vol. X, no. 2, 2001-02, pp. 1-13; 'Assessing Pakistan's Nuclear First-Use Option,' *Defence Journal*, vol. 8, no. 2, 2004, pp. 12-15.

3. Destruction of Pakistan's conventional armed forces or other assets beyond an unacceptable level

4. Attack on any of Pakistan's strategic targets such as dams or nuclear installations like Tarbela, Mangla, Kahuta, Chashma etc.

5. Imposition of blockade on Pakistan to an extent that it strangulates the continued transportation of vital supplies and adversely affects the war-waging stamina of the country

6. Indian crossing of the Line of Control to a level that it threatens Pakistan's control over Azad Kashmir.[34]

But the above formulation is of little help for understanding the circumstances or red lines that will force Pakistan to use nuclear weapons first. For example, the factor "Penetration of Indian forces beyond a certain defined line" if anything else is no more than a vague assertion of a condition, as for Pakistan it is very difficult, in a strategic context, to draw such a definite line. Because of lack of strategic depth, and as major Pakistani targets are not very far from the border, any crossing or even non-crossing, i.e. Indian troops movement along the border, may appear threatening to Islamabad, which highlights Pakistan's dilemma in terms of defining such a line.

The closest to an official statement on this issue is perhaps an interview of Lt. General Khalid Kidwai, Director General of the Strategic Plan Division of the Pakistani nuclear command structure, given to a group of Italian researchers (he later denied it to have been official), in which he said that Islamabad would use nuclear weapons if:

a. India attacks Pakistan and conquers a large part of its territory

b. India destroys a large section of its land and air forces

c. India proceeds to the economic strangulation of Pakistan

d. India pushes Pakistan into political destabilisation or creates large-scale internal subversion.[35]

Again,, it is not very clear what is meant by, and what are the operational parameters of, such notions like 'political destabilisation', 'large scale internal subversion', and 'economic strangulation.' For one thing, these are

[34] T. M. Ashraf, *Aerospace Power: The Emerging Strategic Dimension*, PAF Book Club, Peshawar, 2003, p. 148.
[35] P. Cotta-Ramusino & M. Martellini, *Nuclear Safety, Nuclear Stability and Nuclear Strategy in Pakistan*, Landau Network, Como, January 2002; web: <http://www.mi.infn.it/~landnet/Doc/pakistan.pdf>.

essentially subjective notions in Pakistan-India context and may mean different things in different time and situations. How they are defined in peacetime may be completely different from a crisis. Moreover, subjectivity in their interpretations gets more subtlety and becomes more complex as Pakistan and India very frequently accuse each other of interfering in their internal affairs. In this sense, 'political destabilisation' as a Pakistani triggering factor for nuclear first use is constantly present.

The issue of when and at what stage to use nuclear weapons first in a crisis or war is another strategic dilemma that Pakistan confronts in terms of its nuclear first-use policy. It is not very clear from the Pakistani assertions whether Islamabad will use nuclear weapons at the beginning of a crisis/war or toward the end and only as a last resort. As a Pakistani analyst maintains: "It is not clear how far Pakistan will have to be pushed to decide on a first nuclear strike."[36] However, Pakistani officials insist that Pakistan's nuclear weapons are for defence only and that Pakistan will use nuclear weapons only as a *last* resort if its survival is threatened.[37] But "survival is threatened" can be interpreted in multiple ways at different stages of a crisis or war and Pakistan's former foreign secretary also points out that it is extremely difficult to define when is 'last' from Pakistani point of view.[38] This problem is further exacerbated for another reason since even if Pakistan undertook a first nuclear strike, its strategic gains from doing so would be doubtful. After the Pakistani first strike, India would still retain sufficient nuclear capability to undertake a retaliatory strike that may lead to the collapse of the Pakistani state. Even if New Delhi did not retaliate, Pakistan's gains would still be questionable. Because of the overwhelming international support India would receive, including from the UN Security Council, it would be difficult for Pakistan to withstand the "unacceptable political and security costs" that it would generate.[39] Therefore, Islamabad confronts formidable dilemmas and challenges in its attempts to construct a viable nuclear first-use posture.

COUNTER-VALUE NUCLEAR TARGETING

Broadly, two options are available for a nuclear weapons state in terms of choosing its nuclear targeting policy: it can opt for either a counter-force policy that makes the adversary's military assets the target of its nuclear strike, or a counter-value targeting policy in which big cities, population centres and industries are main targets. Pakistan is yet to reveal anything officially with regard to its nuclear targeting policy, however strategic rationale, technical considerations, and views of the Pakistani strategic

[36] F. Zhara, 'Pakistan's Elusive Search for Nuclear Parity with India,' *in India's Nuclear Security*, eds., R. C. C. Thomas & A. Gupta, Lynne Rienner, London, 2000, p. 161.
[37] 'Nuclear programme for defense purposes only: Pakistan renews talks offer to India,' *The Muslim*, 4 June 1998.
[38] 'Command and Control of Nuclear Weapons,' *The News*, 28 February 2000.
[39] R. B. Rais, 'Conceptualizing Nuclear Deterrence: Pakistan's Posture,' *India Review*, vol. 4, no. 2 (April 2005), p. 157

community indicate that Pakistan has adopted or ought to adopt a counter-value targeting doctrine.

Several factors make a counter-value nuclear targeting policy a natural choice for Pakistan. First, Pakistan's minimum nuclear deterrence principle and the small size of its nuclear arsenal make Pakistan opt for a counter-value nuclear targeting. Second, India's geographical depth makes a Pakistani counter-force nuclear targeting policy less viable and to a large extent ineffective. India's military facilities are dispersed, hence, as Farah Zhara notes, it will be difficult for Pakistan to reach Indian military targets as it lacks the quality and quantity of nuclear weapons for such targets.[40] Major Indian cities, population and industrial centres are, on the contrary, within striking range of the Pakistani nuclear weapons. Therefore, the choice for Islamabad in regard to nuclear targeting is clear. In the words of Shirin Mazari, Director of the Institute of Strategic Studies (Islamabad), Pakistan has to adopt a counter-value targeting policy as targeting Indian big cities and population centres like Bombay, New Delhi, Bangalore etc. serves the intended strategic purpose of the Pakistani nuclear forces.[41]

At least one problem, however, remains since it is questionable how far Islamabad would proceed with dropping nuclear weapons on Indian cities, given that they are inhabited by large Muslim populations. India and Pakistan in the past wars had never carried out large-scale strikes on each other's big cities. It is unknown how Pakistan will address this non-strategic, yet no less significant, dilemma in its nuclear targeting policy.

DELEGATIVE COMMAND AND CONTROL SYSTEM

Every nuclear weapons state has to construct a nuclear command and control structure for efficient management of its nuclear forces. A number of factors, such as technical considerations, geo-strategic compulsions, and national strategy and priorities, determine the shape and character of a country's nuclear command and control system. Through it, a nuclear power institutionalises its approach regarding employment, deployment and development of its nuclear forces. It elaborates mechanisms to prevent unauthorised, inadvertent or accidental use of nuclear weapons, and puts in place a chain of command structure to ensure authorised and verified use of nuclear weapons if it becomes necessary to do so. Depending on strategic priorities, a state can institute an 'assertive' or a 'delegative' control system; the former emphasises prevention of unwanted use of nuclear weapons by putting in place a mechanism in which the decision to launch nuclear weapons is exclusively retained by top political leaders, while the latter emphasises certainty of wanted nuclear use under 'defined circumstances'

[40] F. Zhara, 'Pakistan's Road to a Minimum Nuclear Deterrent,' *Arms Control Today*, vol. 29, no. 5 (July/August 1999); Web: <http://www.armscontrol.org/act/1999_07-08/fzja99.asp>.
[41] S. M. Mazari, 'India's nuclear doctrine in perspective and Pakistan's options', *Defence Journal* (Karachi), October 1999.

in which subordinate commanders are authorised to launch nuclear weapons.[42]

Although Islamabad announced the setting up of a National Command Authority (NCA) in February 2000 and delegated "employment and deployment control over all strategic forces and strategic organizations" to this body,[43] it is not very clear, in absence of any official indication, what control mechanism - assertive or delegative - Pakistan has adopted or will prefer to adopt. In whichever way Pakistan leans, there will always be a dilemma, as identified by Peter Feaver in the context of nuclear command and control structure of emerging nuclear nations, that if control of nuclear weapons is too loose (delegative control), deterrence can 'fail deadly' which may lead to unauthorised or accidental launch; on the other hand, if control is too tight (assertive control), deterrence can 'fail impotent' as first strike against leadership short-circuits any chance of retaliation.[44]

Notwithstanding this dilemma, it is plausible to argue, based on the Pakistani conditions, that Islamabad will prefer a delegative control system. First, Pakistan's lack of geographical depth makes its nuclear assets and command structure vulnerable to Indian pre-emptive or surprise air attack.[45] The Pakistani leadership fears that India, with its superior strike capability, may undertake a decapitating attack which would reduce Pakistan's ability to retaliate. Pakistan would therefore want to ensure authorized nuclear use by adopting a delegative and mobile nuclear command and control system.[46]

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[42] P. D. Feaver, 'Command and Control in Emerging Nuclear Nations,' *International Security*, vol. 17, no. 3, 1992-93, pp. 168-169.

[43] The NCA comprises of three organs: Employment Control Committee, Development Control Committee, and Strategic Plan Division. The Employment Control Committee is to deal with the operation of the nuclear weapons and is headed by the head of the government. Other members of the committee are the foreign minister (deputy chairperson), defence minister, interior minister, chairperson of the Joint Chief of Staff Committee, services chiefs, Director-General of the Strategic Plan Division (secretary), technical advisors, and others as the chairperson deems required. The Development Control Committee is responsible for building and upgrading the nuclear forces and is composed of the head of the government (chair), the chairperson of the Joint Chiefs of Staff Committee (deputy chair), the services chiefs, the Director-General of the Strategic Plan Division, and representatives of the strategic organizations and community (vague but presumably scientists and members of the intelligence agencies). The Strategic Plan Division acts as the Secretariat and coordinates the activities of various sections of the NCA. It is located at the Joint Services Headquarters and is headed by an army officer. The Director of the Strategic Plan Division plans and coordinates the command, control, communications, computers, and intelligence systems. See, 'National Command Authority formed,' *Dawn*, 3 February 2000. It is noteworthy that Pakistan's key nuclear installations came under the control of the NCA in November 2000.

[44] Feaver, op.cit., p. 170.

[45] E. Ernett, 'Nuclear Stability and Arms Sales to India: Implications for U.S. Policy,' *Arms Control Today*, vol. 27, no. 5, 1997, pp. 7-11

[46] Not only Pakistani analysts view that pre-delegation of authority to field commanders for nuclear use is a very likely option for Islamabad to undertake, Western analysts also equally reach to the same conclusion. For example, Hoyt notes that Pakistan is likely to lean heavily toward the always side of the always/never divide, and probably include both devolution and

Second, as is evident in its doctrine of massive retaliation and policy of nuclear first-use, Islamabad's nuclear deterrence approach is substantively aggressive, primarily to offset its strategic weaknesses and vulnerabilities vis-à-vis India. In a similar fashion, it is very likely that Islamabad, to enhance the credibility of its nuclear deterrence, will pursue an aggressive, although risky, posture and adopt a delegative control system. Third, if history is any guide, there should be little doubt that the Pakistani army, at least in the foreseeable future, will play a leading role in managing the country's nuclear forces and the command structure, announced in February 2000, also reveals the army's influential role in nuclear decision making. Therefore, pre-delegation of authority to field commanders to use nuclear weapons is not inconsistent with the Pakistani style of managing the country's security policy. A leading Pakistani analyst concludes that "even corps commanders would be involved in the decision to use nuclear weapons."[47]

Pakistan's delegative control system generates a number of risks. Geographical proximity between India and Pakistan and short flight time of delivery vehicles specifically make the Pakistani approach risky in a strategically volatile region like South Asia. In general, an early warning system will help little in reducing the nuclear danger in South Asia because of extreme geographical proximity,[48] and it is doubtful whether Pakistan would have the technological capability to build such a sophisticated system anyway. Further, Pakistan has got a history of military coups; in such a context, extremist or zealot officers could take control of nuclear weapons.[49] There is also the danger that field commanders may make mistakes or panic under stress which increases the likelihood of nuclear use.

Conclusions

As this paper illustrates, the dilemmas and challenges Pakistan confronts in its attempt to develop a nuclear use doctrine and a command and control structure are formidable. While there exists a rudimentary and rough structure of a Pakistani nuclear use doctrine, its details are yet to emerge or take a definite direction. Islamabad is still in the formative phase of building a proper nuclear force structure, a definite direction of Pakistan's nuclear use doctrine will only emerge in the future, based on what type of force posture it eventually decides to develop. Many imponderable factors, deriving from national, regional and international sources, will intervene

pre-delegation of nuclear use to the field commanders. See, T. D. Hoyt, 'Pakistani Nuclear Doctrine and the Dangers of Strategic Myopia,' *Asian Survey*, vol. XLI, no. 6, 2001, p. 966.

[47] Z. I. Cheema, 'Pakistan's Nuclear Use Doctrine and Command and Control,' in *Planning the Unthinkable: How New Powers Will Use Nuclear, Biological and Chemical Weapons*, eds P. R. Lavoy, S. D. Sagan, and J. J. Wirtz, Cornell University Press, Ithaca, 2000, p. 174

[48] MV Ramana, R Rajaraman, and Z. Mian, 'Nuclear Early Warning in South Asia: Problems and Issues,' *Economic and Political Weekly* (Mumbai), 17 January 2004

[49] P. Hoodbhoy, 'Living with the Bomb,' *Dawn*, 6 June 1998.

along the way, which will either modify or change Islamabad's current plan on force structure building and doctrinal development. Hence, considerable uncertainty will remain at least in the foreseeable future regarding Pakistan's nuclear use doctrine and its command and control structure with all attendant strategic consequences and implications.

No sweeping generalisation can be made, however it is very likely that all small nuclear weapons powers in the Second Atomic Age will experience more or less similar dilemmas and challenges like Pakistan in developing their own nuclear use doctrines and command and control systems. This will be so primarily due to the imperatives deriving from similar structural features of those states. Similar features like resource constraints, domestic political dynamics, bureaucratic momentum, relative technological backwardness, and, above all, external pressure and constraints (a key constraining factor in building force structure by second generation small nuclear powers, which was not the case for the traditional nuclear powers of the First Atomic Age) will make these states face common dilemmas and challenges in their doctrinal contemplation. For example, because of a poor and limited resource base, all small nuclear weapons powers are very likely to adopt a minimum nuclear deterrence doctrine like Pakistan in which they will commonly confront the dilemma of ensuring credibility of their nuclear deterrence and maintaining minimality.

Finally, it is worthwhile to provide a brief assessment on the impact of Pakistan's nuclear doctrine on regional crisis stability. In general, South Asia is a crisis-prone region, and in the overt nuclear era, Pakistan and India have experienced a 'limited nuclear war' - the Kargil Conflict - in the summer of 1999, and a major crisis in 2001-2002. Theoretically, crisis instability is more likely to result when there exists a military situation that favours a pre-emptive strike, which can result from asymmetric power balance in a given context, or from "escalation dominance" by a party. Given Pakistan's minimum nuclear deterrence doctrine and its relative military weakness vis-à-vis India, it is unlikely that Islamabad will undertake a pre-emptive strike to disarm India in the context of an ensuing crisis. Neither is it likely that Pakistan will acquire an "escalation dominance" that will tempt it to upset crisis stability. Very simply, there is little incentive for Islamabad to pursue an escalatory posture in a crisis situation. As was the case in the Kargil conflict and 2001-2002 military standoff, Islamabad pursued a "pure deterrence" strategy rather than an "escalatory deterrence" posture. Specifically, during the 2001-2002 crisis, Islamabad pursued a "pure deterrence" posture by communicating deterrent signal through missile movement and missile testing during the course of the crisis.[50] Therefore,

[50] Pakistan tested three missile systems - Ghauri-I, Ghaznavi and Abdali in late May 2002 when the military standoff was on its peak. A former Pakistan Army officer viewed the testing of those missiles 'was the most explicit signal by Pakistan of the readiness of its missile-deliverable deterrent during the composite crisis period.' See, F. H. Khan, 'Nuclear Signaling, Missiles, and

Pakistan's nuclear use doctrine in those two crises contributed to crisis de-escalation. Pakistan is likely to advance similar deterrent posture in future Indo-Pakistani crises.

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Escalation Control in South Asia,' in *Escalation Control and Nuclear Option in South Asia*, eds M. Krepon, R. W. Jones, and Z. Haider, The Henry L. Stimson Center, Washington, D.C., 2004, p. 89.