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Tactical Nuclear Weapon: Deterrence Stability between India and Pakistan

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India and Pakistan relations have been fraught with conflict since 1947. New Delhi's recent doctrinal transformation, upsurge in its anti-missile program, and gigantic investment in the conventional weaponry have obliged Islamabad to reciprocate by manufacturing and testing a credible-cum-transparent new weapon-NASR missile on April 19, 2011. Indeed, to prevent India's hegemony in South Asia, Islamabad requires an unyielding conventional fence and credible nuclear second strike. The solidification of the Pakistani defensive fence needs three things: strategic vigilance, a sophisticated national military buildup program,¹ and above all, finances to bear the burden of military modernization. The first two are easier to accomplish provided the third article is on a positive trajectory.

India's growing economy encourages colossal investment in its military arsenals. Conversely, Pakistan's increasing economic fragility and unending war on terrorism limits the latter's options to invest in the military buildup. This prevalent economic equation obviously facilitates New Delhi to shift the balance of power in its favor. The overwhelming majority in Pakistan believe that if the balance of power were heavily skewed in favor of India, it would be likely to launch a hegemonic war against Pakistan.

The gradual fattening of the Indian military muscle naturally exacerbates the military vulnerability of Pakistan. Therefore, the latter's defense planners continuously endeavor to preserve the balance of power to sustain the deterrence stability between the belligerent neighbors in South Asia. Though Islamabad has limited options to cope with the emerging strategic puzzles due to its economic challenges, it still has room for maneuvering. The economic limitations also necessitate that Islamabad must be vigilant, calculated, and sensitive to India's bait-and-bleed and bloodletting strategies,² i.e. a costly arms race, limited war, and luring it into a prolonged struggle with religiously radicalized/extremist groups through its armed forces.³ Nonetheless, India's doctrinal change entailing military buildup necessitates that Islamabad implement countermeasures— albeit at a reasonable cost.

¹ Pakistani strategic enclave is determined to uphold balance of terror with India to deter its aggression or blackmailing tactics. The deterring capabilities can be acquired through internal build-up and/or via alliance formation. Pakistan's alliances (SEATO & CENTO) and bandwagoning (United States & China) did not prevent its dismemberment in 1971 war with India. Since 1971, therefore, it has been focusing on internal build up. That is why, despite the opposition, economic sanctions (1970s, 1980s, 1990s) and negative signalling over safety and security of its nuclear weapon program (since 9/11) by the United States and like-minded states, Islamabad has been upsurging its nuclear arsenal.

² The bait-and-bleed and bloodletting strategies mean to keep rival or strategic competitor into protracted internal or external conflicts to enable oneself to get relatively stronger on the sideline while the adversely is wasting its resources in fight.

³ Since 9/11, Pakistani armed forces have been conducting military operations against the terrorist groups on its territory.

India's revisionist military strategy and Pakistan's status quo-oriented tactics at the technical level of grand strategy may be perilous for the current deterrence stability between India and Pakistan. Hence, the subject of deterrence stability between India and Pakistan has been attracting an immense amount of attention to strategic observers since the latter tested its NASR Missile in April 2011. The NASR missile test has instigated a debate about the tactical nuclear weapons' (particularly in Pakistani arsenal) role in the deterrence stability between India and Pakistan.

Strategic pundits, intoxicated with the concept of 'minimum nuclear deterrence,' confidently plead that India's military buildup could not destabilize Pakistan's defensive fence because of its nuclear arsenal. They tried to establish that Islamabad's anxiety over India's anti-missile program and Cold Start Doctrine, declassified on April 2004, has been due to its strategic alarmist miscalculations.⁴ Significantly, many analysts concluded that Pakistan's pursuit of a new generation of nuclear weapon, i.e. tactical nuclear weapon, for its deterrence credibility contains ingredients of instability.

Indeed, a new generation of weapon creates power transition and intensifies the security dilemma between the strategic competitors. The introduction of a newly invented weapon taxes the strategic stability and thereby could jeopardize deterrence stability. Conversely, in certain cases, if the new generation of weapon is invented and introduced in arsenals as a reaction to the strategic revisionist state's military buildup, particularly designs to defend or preserve the balance of power or status in the prevalent strategic environment, it bolsters the strategic stability. However, it is a tested verity that the new generation of weapon is a catalyst for arms race. The arms race always fabricates misperceptions and miscalculations, which are injurious to deterrence stability between the strategic competitors.

India's doctrinal transformation obsessed with the revisionist strategic outlook, and Pakistan's endeavors to seize every opportunity to maximize its power, including new generation of nuclear weapons despite being a military cost-sensitive state, marked that the arms race continues between South Asian nuclear capable states. In addition, New Delhi's steadfast denunciation of Islamabad's Nuclear Restraint Regime proposal underlines the absence of solid constructs—arms control arrangements between the strategic peers—of deterrence stability between the belligerent neighbors. The threat of the use of nuclear weapons cannot be ruled out completely in the future war between India and Pakistan. In this context, the duelling impact of the tactical nuclear weapon on the deterrence stability between India and Pakistan necessitates an objective analysis. In the following discussion, the analysis will be based on intensely debated paradoxes, i.e. the strategic stability/instability paradox and vulnerability /invulnerability paradox.

⁴ Many analysts argue that in the aftermath of the terrorists attack on Mumbai in November 2008, India refrained from conducting surgical strikes inside Pakistan despite having the Cold Start Doctrine. According to these analysts, India refrained from military adventurism due to Pakistan's nuclear weapon capability. But one cannot ignore that India Army Chief, General Depik Kapoor, expressed his satisfaction with Cold Start Strategy on December 29, 2010.

Reinforcing Stability/Instability Paradox

South Asia has been experiencing fierce India-Pakistan security competition fuelled by the power and fear of a rising India.⁵ The United States Strategic Partnership with both India and Pakistan has failed to cool the security competition between India and Pakistan. Though Washington played a decisive role in lowering the tensions or facilitated in averting tension escalation into war during the last two decades,⁶ it has failed to prevent them from military modernization. Nor has Washington helped constitute a substantial bilateral arms control agreement/treaty. In reality, the Indo-U.S. nuclear deal and India-U.S. Space Cooperation have had bolstering impact on India's military modernization. The benign inclination towards India is an outcome of Washington's global policy of 'engagement and enlargement' in the 21st century. Accordingly, it needs an Asian power to check China's prospects of becoming a potential regional hegemon in Asia and a peer competitor of the United States.⁷ More precisely, India's military buildup, which is perilous for the regional strategic stability, receives assistance from the United States.

India has been on a path to major military development—nuclear weapons, offensive strategic/tactical ballistic and cruise missiles, missile defense system, and conventional arms.⁸ The missile defense system program reveals that India has not been content with the development of its triad of nuclear forces and relying on its nuclear second-strike capability. Although an operational missile defense system is years away, this is certainly a first step in changing the nuclear balance between India and Pakistan. In addition, India's Cold Start doctrine and military purchases signify the increasing conventional asymmetry between India and Pakistan. These developments reinforce stability/instability paradox in the region.

Absence of Arms Control between India and Pakistan

The intellectual and political movements in favor of a nuclear-weapon-free South Asia suffer from unconvincing rationales, inherent contradictions, and unrealistic expectations. They have failed to bring about any shift in the perceptions of India-Pakistan nuclear optimists. Hence, the vertical proliferation of nuclear capabilities is inevitable in India and Pakistan due to the emerging South Asian regional security architecture. Indeed, Islamabad proposed to New Delhi a nuclear restraint regime with a concrete proposal to prevent missile race between them. Unfortunately, India-Pakistan belligerency and New Delhi's obsession with regional superiority have prevented New Delhi and Islamabad from chalking out a bilateral arms control agreement. India's Cold Start Doctrine and missile defense program further minimized the possibility of an arms control arrangement between India and Pakistan. The strategic calculations indicate that the fattening of one party's military muscle obliges the other party to take equal actions in order to solidify its defensive fence.

⁵ India has been economically rising and politically pursuing great power stature in the global politics. It feels insecure due to Pakistan's potential to exacerbate intra-state conflicts within India by supporting the Indian radical groups. Simultaneously, it is strategically afraid of China despite having immense bilateral trade volume between India and China.

⁶ The United States played a very constructive role in defusing tension in summer 1990, Kargil conflict of 1999, 2001-2002 military standoff between India and Pakistan.

⁷ China would be a peer competitor of United States. Peter Toft, "John J. Mearsheimer: an offensive realist between geopolitics and power," *Journal of International Relations and Development*, 8 (2005), pp. 381-408: 397.

⁸ India conducted the first test of its tactical ballistic missile Prahaar having 150 km range on July 21, 2011. It is capable to carry a 200 kg conventional warhead and can be fired in salvoes of six independently targeted missiles.

Minimum Deterrence: Unconvincing

Both New Delhi and Islamabad reiterate credible minimum deterrence doctrines. Theoretically, minimum deterrence offer clarity, but practically, it is more intangible. The inbuilt abstraction in the concept does not only defy the literal meaning of minimum deterrence, but also creates a space for the strategic alarmists' fascination with the worst case scenario in the strategic discourse. Therefore, instead of adopting a minimalist approach, India and Pakistan have been executing 'maximal' deterrence doctrines, which continuously build up their nuclear arsenals qualitatively and quantitatively. The gradual fattening of India and Pakistan nuclear muscle immensely dented the strategic notion that 'nuclear deterrence is not about numbers.' India's nuclear devices, offensive and defensive missiles, conventional arms development, and procurement manifest that it has no faith in the mere possession of nuclear capability at the limited scale, and thereby it has been very much uncomfortable in the strategic environment constructed by the balance of power (?) due to the nuclearization of belligerent neighbors in May 1998. New Delhi's endeavor to overcome its prevalent strategic anxiety necessitates Pakistan to adopt certain measures for the sustainability of the status quo, i.e. strategic equilibrium between India and Pakistan. These measures defy the philosophy of minimum deterrence that prevents arms race between the strategic competitors.

Cold Start Doctrine: Limited War with Impunity

India declassified its new military doctrine—Cold Start Doctrine— on April 28, 2004.⁹ This new doctrine marked a break from the fundamentally defensive orientation that the Indian military has employed since independence in 1947.¹⁰ It visualized a tri-service doctrine, which necessitates restructuring of the Indian Army and reorganizing the Indian Army's offensive power away from the three large strike corps into eight smaller division-sized "integrated battle groups" (IBGs) that combine mechanized infantry, artillery, and armor.¹¹ The eight battle groups would be prepared to launch multiple strikes into Pakistan along different axes in advance to destroy its defensive and offensive corps.¹² The ground operations of the IBGs require integration with close air support from the Indian Air Force and naval aviation assets to provide highly mobile fire support.¹³ In addition, the holding corps would be redesignated as "pivot corps" and would be bolstered by additional armor and artillery. This would allow them to concurrently man defensive positions and undertake limited offensive operations as necessary.¹⁴ The major emphasis of Cold Start is on the speed of both deployment and operations to multiply its war fighting capability against Pakistan. Zachary Davis opined: "Under Cold Start, India would conduct quick, punishing strikes into Pakistan, hopefully without crossing Pakistan's fuzzy redlines for a nuclear response. The vague redlines include cutting off a major supply route, seizing key territory, defeating a major Pakistani military group, or blockading Karachi with Indian naval forces. Indian planners believe they can achieve a

⁹ Firdaus Ahmed, "The Day After 'Cold Start'," *Military – Articles*, No. 2424, Institute of Peace & Conflict Studies, November 23, 2007. <http://www.ipcs.org/article/military/the-day-after-cold-start-2424.html>, accessed on July 16, 2010.

¹⁰ Walter C. Ladwig III, "A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine," *International Security*, Vol. 32, No. 3, Winter 2007/08, p. 158.

¹¹ *Ibid.*, p. 164.

¹² It appears that the goal would be to have three to five IBGs entering Pakistani territory within seventy-two to ninety-six hours from the time the order to mobilize is issued. *Ibid.*, p. 165

¹³ *Ibid.*, p. 164.

¹⁴ Walter C. Ladwig III, "A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine," *International Security*, Vol. 32, No. 3, Winter 2007/08, p. 165.

quick military victory and sue for peace without Pakistan resorting to nuclear weapons.”¹⁵ New Delhi’s doctrinal shift alarmed the policy-makers in Pakistan, and thereby they were obliged to take conventional and nuclear countermeasures.

The review of Indian military field exercises since 2005 and organizational developments within India’s military manifests that Indian armed forces have been endeavoring to institutionalize the operational capability of the Cold Start Doctrine. For instance, in May 2006, Indian armed forces conducted the Sanghe Shakti (Joint Power) exercise, which brought together strike aircraft, tanks, and over 40,000 soldiers from the 2nd Strike Corps in a war game near the Pakistani border. General Daulat Shekhawat, Commander of the Corps, when explaining the purpose of the exercise, stated “to test our 2004 war doctrine to dismember a not so friendly nation effectively and at the shortest possible time.”¹⁶ He added that: “We firmly believe that there is room for a swift strike even in case of a nuclear attack and it is to validate this doctrine that we conducted this operation.”¹⁷ On December 29, 2009, General Deepak Kapoor, India’s Army Chief stated, “A major leap in our approach to conduct of operations (since then) has been the successful firming-up of the cold start strategy (to be able to go to war promptly).”¹⁸ The Cold Start Doctrine would give India an opportunity to keep military operation at the level of limited war. The limited war can be evaluated by four parameters: time, geography, weaponry used, and objectives sought. P. R. Chari pointed out:

The Cold Start strategy, which seeks to call Pakistan's nuclear bluff with limited offensives, provides all corps with offensive capability and upgrades the role of Special Forces. The tactical objectives may include a rapid shallow invasion, destroying terrorist infrastructure or Pakistani military assets, or hot pursuit of militants - all limited objectives. The strategic objective would be to get India out of its post-1998 ‘strategic box’ of being deterred by Pakistan's nuclear arsenal from acting against Pakistan's proxy war in Kashmir.”¹⁹

Ironically, the Indian strategic community has been debating the advantages of Cold Start Doctrine, rather than the specific conditions that produce the destabilizing characteristics of Cold Start operational plan — the need for prompt mobilization, the immediate attack on Pakistan, and the plan to knock Pakistani nuclear capable armed forces out of the war before international community mobilizes and intervenes in the crisis. These destabilizing features not only unleash a deadly arms race, but intensify security dilemma between the nuclear capable belligerent neighbors.

¹⁵ Zachary Davis, “Stepping Back from the Brink: Avoiding a Nuclear March of Folly in South Asia,” *Arms Control Today*, January/February, 2009.

http://www.armscontrol.org/act/2009_01-02/stepping_back_from_the_brink, accessed on July 16, 2010.

¹⁶ This exercise took place near Pakistan border. A.H. Nayyar and Zia Mian, “The Limited Military Utility of Pakistan’s Battlefield Use of Nuclear Weapons in Response to Large Scale Indian Conventional Attack,” Pakistan Security Research Unit (PSRU), Brief No. 61, November 11, 2010, p. 3.

¹⁷ Ibid.

¹⁸ Rajat Pandit, “Army Reworks War Doctrine for Pakistan, China,” *The Times of India*, December 30, 2009. http://articles.timesofindia.indiatimes.com/2009-12-30/india/28104699_1_war-doctrine-new-doctrine-entire-western-front, accessed on September 18, 2011.

¹⁹ Prof PR Chari, “Limited War Under the Nuclear Shadow in South Asia,” in Arzan Tarapore, Report of the seminar presenting key findings of the USIP report held on January 19, 2005 at the IPCS conference room, *Military – Articles*, No. 1623, Institute of Peace & Conflict Studies, January 29, 2005.

<http://www.ipcs.org/article/military/limited-war-under-the-nuclear-shadow-in-south-asia-1623.html>, accessed on July 17, 2010.

Pakistan's Strategic Anxiety & Countermeasures

The Cold Start Doctrine necessitates the integrated groups' deployment and mobilization into 'highly mobile formations' on hair-trigger alert for launching limited war. The speed and efficiency of a military force's Observation-Orientation-Decision-Action (OODA) loop would disrupt Pakistan's decision cycle, allowing the Indian Army to change the ground reality fast enough to leave Pakistan Army constantly reacting to an inadequate understanding of the situation. The key is maintaining the initiative, continually disorienting the enemy through rapid and unpredictable change in tactics. The ultimate result should be strategic paralysis of the enemy, so that it is blind, disoriented, confused, and incapacitated, thereby offering a faster and more efficient way of fighting and winning a conventional war.²⁰ If the Cold Start Doctrine operational plans are materialized in the future, it could pose the following strategic challenges to Pakistan:

1. India's "surprise" factor in terms of when, where, and how a "Cold Start" battle group would be launched. Indians believe that the element of surprise would be achieved.
2. Fighting the air battle in an environment where the IAF has significant superiority in terms of numbers and quality of numerical strength. The Pakistan Air Force would be knocked out.
3. Devising a credible anti-ballistic missile defense. Pakistan's ballistic and cruise missile strikes would be defied.
4. Re-constitution of Pakistan's "strike corps" and its three 'Army Reserve' formations, which were so far configured and located to take on India's three "Strike Corps".
5. Having eight IBG (rather than three) units capable of offensive action significantly increases the challenge for Pakistani intelligence's limited reconnaissance assets to monitor the status of all the IBGs, improving the chance of achieving surprise.

The preceding assumptions raise a few questions about when and how Pakistan's nuclear deterrent and its doctrine of "First Use" come into play. How can Pakistan offset India's overwhelming long range artillery fire support? How can it counter India's force projection capabilities deep in Pakistan's rear? The aforementioned perceived and real threats necessitate that Pakistan revise its nuclear strategy

Islamabad seems very sensitive to India's Cold Start Doctrine, especially after General Kapoor's expression of confidence in India's new doctrine. On January 13, 2010, the National Command Authority (NCA) of Pakistan declared that it had taken "serious note of recent Indian statements about conducting conventional military strikes under a nuclear umbrella." It added that "such irresponsible statements reflected a hegemonic mindset, oblivious of dangerous implications of adventurism in a nuclearized context General Parvez Kayani, Pakistan's Chief of Army Staff, stated on January 1, 2010: "Proponents of conventional application of military forces, in a nuclear overhang, are chartering an adventurous and dangerous path, the consequences of which could be

²⁰ Arzan Tarapore, "The New Army Doctrine in Limited War," *Nuclear – Articles*, No. 1588, Institute of Peace & Conflict Studies, December 2004. <http://www.ipcs.org/article/nuclear/the-new-army-doctrine-in-limited-war-1588.html>, accessed on July 18, 2010.

both unintended and uncontrollable.”²¹ These statements manifest Pakistan’s resolution to respond to the Cold Start Doctrine militarily.

The Pakistani Army conducted substantial war-readiness exercises, codenamed “Azme-e-Nau III” (New Resolve), from April 10 - May 15, 2010. It involved more than 50,000 troops. It started in the Bahawalpur desert area of South Punjab and culminated in Northern Sindh. The exercise was held contextually in the backdrop of India’s Cold Start Doctrine. The geographical extent of this exercise manifests that Pakistan is very much sensitive to the Indian Cold Start Doctrine and its armed forces are militarily capable of repealing India’s offensives emanating from latter’s Cold Start Doctrine. Second, newly-inducted F-16 C/D Block 52 aircraft stationed at upgraded the Pakistan Air Force (PAF) Base Shahbaz at Jacobabad, Province Sind. These fighter jets provide PAF all-weather precision attack capability day and night in the Southern theater.²²

The preceding discussion underscores that Islamabad has been strategically vigilant and systematically responding to the Indian Cold Start Doctrine. The countermeasures do have limitations because of Pakistan’s economic situation. Its weapons purchasing power from the international market has drawbacks. It seems that the Azme-e-Nau military exercise was very significant for revising Pakistan’s nuclear posture. It may have exposed Pakistan’s conventional and nuclear limitations against the gradual modernization of the Indian armed forces. For instance, hypothetically speaking, it seems that without the possession of tactical nuclear weapons, and without the option of a flexible, measured, and proportionate response, Pakistan was faced with the grim option of either calling for a massive and suicidal attack against Indian cities in response to India’s limited conventional aggression or surrendering. Indeed, these limitations necessitated the revision of nuclear posture and necessitated the introduction of a new generation of weapons in the Pakistani nuclear arsenal.

Pakistan’s nuclear doctrine speaks of minimum deterrence and a last resort. Would it be credible for Pakistan to stick with the last resort? Or should the doctrine prescribe a graded and proportional punitive retaliation option. Presently, however, a very important link is missing in Pakistan’s nuclear strategy, i.e. tactical nuclear weapons development and deployment. Though it sounds jingoistic-alarming, it is a reality. Pakistan will come under increasing pressure to rely on its nuclear arsenal for self-defense due to India’s unrestrained military buildup. Moreover, Pakistan has not foreclosed its tactical weapons option due to following factors:

- Pakistan retains a robust nuclear arsenal to provide deterrence against nuclear, chemical and biological weapons. Its nuclear weapons also guard Pakistan’s national interest from the conventional superiority of the adversary. It could develop in the future low-yield-battle field nuclear weapons to solidify its defensive fence or to tackle the eventualities sprouting due to increasing conventional asymmetries between India and Pakistan.
- The quantitative and qualitative gradual upgrading in both conventional and nuclear weapons remains the priority of the Pakistani armed forces. During the improvement of armed forces arsenals, policy-makers ought to remain vigilant about the repercussions of the defense industry on the country’s socio-economic development. That is very

²¹ Iftikhar A. Khan, “Tough Kayani warning to proponents of adventurism,” *Dawn*, January 2, 2010. <http://iaoj.wordpress.com/2010/01/03/kayanis-tough-warning-to-india/>, accessed on September 18, 2011.

²² “PAF to use F-16s as it wishes,” *The News International*, June 28, 2010.

important because Indians believe that they would win against Pakistan by using the ‘arms-race’ as a weapon of war. This hidden component of the Indian Cold Start Doctrine, i.e. strategy of economic exhaustion/collapse, ought to be carefully considered. The perfect balance between both the sectors (economic and military) ensures the sustainable increment in the armed forces power.

TNW: Hatf IX—NASR

Pakistan successfully conducted the first flight test of the newly developed, short range surface-to-surface multi-tube ballistic missile, Hatf IX (NASR) on April 19, 2011. The Inter-Services Public Relations (ISPR) press release revealed: “the NASR missile, with a range of 60 km, carries nuclear warheads of appropriate yield with high accuracy and shoot-&-scoot attributes.”²³ Importantly, the range and nuclear warhead characteristics of the NASR missile indicate that it may be a tactical nuclear weapon (TNW) that could be used in the battlefield. Though its exact yield, deployment location, and rank of the custodian in the battlefield were not announced, the perception persists that its warhead would be low-yield.

Director General of the Strategic Plans Division (SPD), Lieutenant General (Retired) Khalid Ahmed Kidwai, announced Pakistan’s test of NASR. He stated that: “the test was a very important milestone in consolidating Pakistan’s strategic deterrence capability at all levels of the threat spectrum.” He added: “that in the hierarchy of military operations, the NASR Weapon System now provides Pakistan with short range missile capability in addition to the already available medium and long range ballistic missiles and cruise missiles in its inventory.”²⁴ Indeed, General Kidwai declared NASR missile as a short range missile but refrained to call it a tactical nuclear weapon. This raised a question whether we call NASR a TNW. It is because of the simple range and the nature of the payload that the missile cannot be used as a yardstick to make a distinction between tactical and strategic weapons. Despite all of the anonymities, can we consider NASR as a TNW due to its short range, nuclear warhead, and shoot-&-scoot attributes in the following discussion. This issue drives our attention towards the question how one can catalog or make a distinction between the weapons.

In the lexicon of weapons, nuclear weapons are cataloged into two categories: ‘tactical nuclear weapons’ and ‘strategic nuclear weapons.’²⁵ Generally, it is said that the tactical nuclear weapons are those weapons which are designed for use against tactical targets on the battlefield or in a theater of war.²⁶ In peacetime, making this distinction is simple, but during war, the division is

²³ Inter-Services Public Relations (ISPR), ‘Press Release,’ 19 April 2011.

²⁴ ISPR, ‘Press Release,’ 19 April 2011. See also, Anita Joshua, ‘Pakistan tests short-range ballistic missile’, *The Hindu*, April 19, 2011. <http://www.thehindu.com/news/international/article1709352.ece> (24 April 2011).

²⁵ The strategic weapons are typically targeted on the enemy country’s homeland — on targets varying from leadership centers to cities to nuclear missile silos. In addition, many tactical weapons were designed to be used against mobile targets while strategic weapons are almost exclusively intended to be delivered to predetermined geographic points. George Lewis & Andrea Gabbitas, “What Should be Done About Tactical Nuclear Weapons?” *Occasional Paper* (Washington D.C. The Atlantic Council of the United States, March 1999), pp. 2-3.

²⁶ There is sometimes a distinction made between theater and tactical nuclear weapons. Shorter-range weapons (those with ranges of a few tens of kilometers) have been referred to as tactical weapons while longer-range nonstrategic weapons were called theatre weapons. The United States and Russian Federation TNW inventories today include long-range land-attack sea-launched cruise (SLCMs) and air-deliverable bombs. Notably, the long-range nuclear SLCMs, have

tricky because the TNW could be delivered against a strategic target during the war. The possibility of the use of the TNW on the battlefield as well as against strategic targets brings into calculation the significance of the intentions of the employer of nuclear weapon. The intention is an intangible determinant; therefore, one needs to take into account the other characteristics of the weapon while cataloging the nuclear weapon. Thus, in addition to the intentions of the employer, four factors—range and payload capacity of delivery vehicle; yield of device; geographical location or deployment area of weapon; and the nature of the command—serve as the basis for cataloging the nuclear weapon. For example, the general understanding is that the weapon intended for the battlefield always has shorter-range and lighter-payload carrying delivery vehicle. The lighter-payload capacity of vehicle automatically limits the yield of the warhead. Moreover, the battlefield weapon is supposed to be deployed in the battlefield and it is in the command of the local commander during the crisis. In this case the National Command Authority delegates the power of the use to the local commander.²⁷

Hypothetically speaking, the NASR missile would be used to deter or inflict punishment on mechanized forces such as the armored brigades and divisions envisaged in India's Cold Start Doctrine. In addition, the successful test of the NASR missile indicates that Pakistan has succeeded scientifically in miniaturizing its nuclear weapon designs to the extent that these can be launched by tactical and cruise missiles.²⁸ It seems that there would be shells for artillery guns carrying atomic explosives deployed on the India-Pakistan border. More precisely, Pakistani defensive formation would be capable of using nuclear strikes to annihilate the adversary's advancing rapid cavalry/armored thrust in the Southern desert theatre or taking advantage of the short distance from the border to takeover Lahore.²⁹

TNW: Invulnerability vs. Vulnerability

The Grand Strategy constituted to encourage covert war or limited conventional conflicts is perilous for deterrence stability between the belligerent states. The tactical weapons surfacing in South Asia may purge these tactics from the grand strategies of India and Pakistan. This optimistic conclusion about the constructive role of tactical nuclear weapons has been strongly questioned on the premise that battlefield weapons increase the possibility of use of small nuclear weapons. This undesirable trend—proliferation of tactical nuclear weapons in South Asia—necessitates that we think rationally in order to chalk out a strategy to avoid the nuclear land combat operations in the future.

The likely modernization of tactical weapons will blur the line between conventional and nuclear weapons by making the use of nuclear capability a feasible option. In addition, the

ranges well over a thousand kilometers and have characteristics similar to some types of strategic weapons. The Russian stockpile also includes ship-attack SLCMs, air-launched anti-ship weapons, torpedoes, airdefense weapons, artillery shells, short-range ballistic missiles, and possibly land mines. George Lewis & Andrea Gabbitas, "What Should be Done About Tactical Nuclear Weapons?" *Occasional Paper* (Washington D.C. The Atlantic Council of the United States, March 1999), p. 2.

²⁷ It can be a unit commander, i.e. in Pakistan Army Lt. Colonel.

²⁸ Ahmed, Mansoor, "Why Pakistan needs tactical nuclear weapons," *The Weekly Pulse*, May 6, 2011. <http://weeklypulse.org/details.aspx?contentID=563&storylist=9>, accessed on September 16, 2011.

²⁹ It is illogical to draw an analogy with NATO vs WARSAW pact deployments and use of nuclear weapons during the Cold War with India-Pakistan. The vulnerability of Americans was lesser because WARSAW deployments were not directly threatening United States heartland. Whereas, Lahore, the second biggest city of Pakistan is in the range of Indian Artillery. Therefore, Pakistan needs weapons, to prevent both blackmailing and aggression.

introduction of TNW would increase chances of accidental, unauthorized, and inadvertent use of nuclear weapons. Conversely, the proponents of the TNW opine that the fallout of even a small nuclear weapon makes its use unwise and therefore, the nuclear weapon states ensure their safety and security and also do their best to avoid the use of TNW. They are also convinced that battlefield nuclear capability could lead to the shunning of conventional limited war or operations and low intensity tactics from the grand strategies of both India and Pakistan.

The endeavor to negotiate a comprehensive arms control agreement to prevent both nuclear and conventional arms races between India and Pakistan does not discount the utility of tactical nuclear weapons in the defensive arrangements of Pakistan in the prevalent military asymmetries between the belligerent neighbors. Brodie pointed out: “It is nonsense to hold that a force trained and equipped to fight conventionally—even though it has some essentially unusable nuclear weapons behind it—makes a better deterrent than one of comparable size trained and equipped to fight from the beginning with nuclear weapons designed exclusively for tactical use”.³⁰

It is a realistic calculation that without tactical nuclear weapons, the strategic stability/instability paradox cannot be replaced with strategic stability/stability steadiness. Hence, the NASR missile adds to deterrence stability. It is because Pakistan’s conventional muscle has been gradually losing its defensive punch/guard that a force-multiplier response from the Pakistani defense planners is needed. The weakening of the conventional fence encourages adversaries to initiate limited blackmailing or adventurous military operations which are prone to risk escalation. More precisely, the threat of tactical nuclear weapon use will deter limited war between India and Pakistan.

Conclusion

India’s doctrinal transformation and anti-missile development underscore that it is inclined to maximize its relative power to punish or blackmail Pakistan. Meanwhile Pakistan’s pursuit for a tactical nuclear weapon is very much to maximize its security by sustaining and enduring the prevalent strategic equilibrium with its eastern neighbor. Therefore, the argument that NASR missile development, test, deployment, and operationalization would destabilize the deterrence stability between India and Pakistan seems incorrect. The balancing dynamic of the NASR missile frustrates or makes futile the power-maximizing strategy of India. Nevertheless, the constructive role of the NASR missile in the deterrence stability does not undercut the negativity of the deployment and operationalization of a NASR missile in the battlefield. Thus, it is imperative that India and Pakistan negotiate and implement a bilateral comprehensive arms control treaty. The comprehensive arms control treaty not only prevents the tactical weapons deployment in the subcontinent but also promises deterrence stability between India and Pakistan.

³⁰ Brodie, “The Development of Nuclear Strategy,” 65-83.