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Tactical Nuclear Weapons (TNW) – The Pakistani Perspective

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Abstract

Tactical Nuclear Weapons or TNW as seen through the Cold War lens are weapons with lesser yields or shorter ranges as compared to strategic weapons meant for counter value and counter force targets. During the East-West conflict these weapons were located in advance positions for use on the European battlefield to deter or counter a Soviet invasion. To rival these, the Soviets developed a whole range of their own TNW. Some of these weapons are still deployed in Europe and form part of the non-deployed arsenals of US and Russian nuclear forces.

Ever since Pakistan introduced the battlefield range Nasr/Hatf IX ballistic missile a few years ago, it has been criticized for triggering a new arms race in the region. Pakistan's security establishment regards all kinds of nuclear weapons as guarantors against a growing existential threat. Initially it was argued that the term TNW did not necessarily hold true in the context of the South Asian subcontinent, where all nuclear weapons irrespective of ranges or yields are basically weapons of deterrence but, subsequently, it was argued that these missiles were part of the concept of Full Spectrum Deterrence. Under this arrangement, the TNW covered the immediate battlefield to deter the short sharp thrusts at multiple points below the perceived nuclear threshold within the framework of the Cold Start Doctrine (CSD). Combined together, a mix of short and long range missiles is also expected to find a chink in the Indian Ballistic Missile Defense Shield (BMDS) system.

This paper examines in an objective manner the Pakistani motivations to pursue this developmental strategy and why it will persist with it.

Keywords: India, Pakistan, Tactical Nuclear Weapons (TNW).

Introduction

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Pakistan first test fired the multi barreled Nasr/Hatf IX short range (60km) shoot and scoot missile in April 2011.[1] The second test was conducted in October 2013.[2] Nearly a year later another test was carried out on September 26, 2014. According to an official handout, four missiles were fired in salvo mode to confirm its place in what has been described as the concept of "full spectrum deterrence against the prevailing threat."[3] It was further reported that the new missile had been fully integrated into the command and control system of the Pakistani strategic forces.[4]

In July 2011, a few months after Nasr's maiden flight, the Indians tested their own version of a TNW called the Prahaar ('to strike' in Hindi). They proudly compared it with the US Army Tactical Missile System (ATACMS) and claimed that it had taken their Defence Research and Development Organisation (DRDO) about two years to develop the missile. *Prima facie*, this means that the development of the Pakistani and Indian missiles was taking place almost simultaneously, irrespective of each other and as part of a well-considered development strategy and not as part of an arms race. Although it has a longer range (150 km), the Prahaar has many similarities with Nasr. It can be deployed rapidly within a few minutes and fired from a road mobile launcher. As per reports the Prahaar missile bridges the gap in the ranges between the unguided Pinaka rocket (45 km) and the guided Prithvi missile variants (250 - 350 km). The Prahaar carries a 200-kg conventional warhead and six of these can be launched in salvo mode in different directions. It has sophisticated inertial navigation,

[1] Inter Services Public Relations (ISPR) Press Release PR94/2011, April 19, 2011, http://www.ispr.gov.pk /front/main.asp?o=t-press_release &id=1721 (accessed February 1, 2013).

[2] Usman Ansari "Experts: Missile Test Firing Shows Development Complete," *Defense News*, November 6, 2013, http://www.defensenews.com/article/20131106/DEFREG03/311060029/Experts-Missile-Test-Firing-Shows-Development-Complete?odyssey=nav%7Chead (accessed January 12, 2014).

[3] ISPR Press Release, September 26, 2014, https://www.ispr.gov.pk/front/main.asp?latest=1&o=t-press_release (accessed September 27, 2014).

[4] Ansari "Experts: Missile Test Firing Shows Development Complete," *Defense News*.

guidance and electro-mechanical actuation systems. Its on-board computer helps it to home in on the targets with an accuracy of 10 metres.[5]

Whereas, there has been no pointed reaction to the appearance of Prahaar, Nasr has been opposed for a number of reasons. It has been surmised that it will not deter an Indian leadership incensed by a terrorist attack allegedly sponsored by Pakistan to respond militarily.[6] It has also been said that it will not only lower the nuclear threshold,[7] but will also in the long run trigger another round of debilitating arms race in the region.[8] Quite naturally, the fiercest detractors of this development have been Indians,[9] followed by non-proliferationists in the western camp.[10]

Initially, commentators representing the Strategic Plans Division (SPD) contended that the Nasr was merely a short range weapon and not a TNW *per se*. They emphasized that the effects sought from this missile were strategic in nature and it would be significantly adding to the existing

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[5] T.S. Subramanian & Y. Mallikarjun, "Prahaar Missile Successfully Test-fired," *The Hindu*, July 22, 2011, http://www.thehindu.com/news/national/prahaar-missile-successfully-testfired/article2279166.ece (accessed September 15, 2014).

[6] David O. Smith, "The US Experience With Tactical Nuclear Weapons: Lessons for South Asia," in Michael Krepon & Julia Thompson eds. *Deterrence Stability & Escalation Control in South Asia* (Washington DC: Stimson Center, 2013), 84, http://www.stimson.org/images/uploads/research-pdfs/Deterrence_Stability_Dec_2013_web.pdf (accessed August 13, 2015).

[7] Vijay Shankar, "India-Pakistan and Tactical Nuclear Weapons: A Step Closer to the Abyss," *IPCS*, November 30, 2013**,** http://www.ipcs.org/article/indo-pak/ipcs-debate-special-commentary-india-pakistan-and-tactical-nuclear-weapons-4202.html (accessed February 14, 2014).

[8] Bhumitra Chakma, *South Asia's Nuclear Security* (New York: Routeledge, 2015), 94, https://books.google.com.pk/books?id=fG7fBQAAQBAJ&pg=PA94&lpg=PA94&dq=nasr+missile+will+trigger+an+arms+race+in+the+region&source=bl&ots=ZS2U_h0tmT&sig=0-6UAadFacsl2Y1kJdmt6JXPW7g&hl=en&sa=X&ved=0CEwQ6AEwB2oVChMI4POqvLSlxwIVyLwUCh0xcAvz#v=onepage&q=nasr%20missile%20will%20trigger%20an%20arms%20race%20in%20the%20region&f=false (accessed August 13, 2015).

[9] Varun Sahni, "Pakistan's Tactical Nuclear Weapons: The Inevitability of Instability," *IPCS*, September 22, 2014, http://www.ipcs.org/article/indo-pak/pakistans-tactical-nuclear-weapons-the-inevitability-of-instability-4670.html (accessed September 24, 2014).

[10] Michael Krepon, "Tac Nukes in South Asia," April 18, 2012, *Arms Control Wonk*, http://krepon.armscontrolwonk.com/archive/3419/tac-nukes-in-south-asia (accessed April 25, 2014).

deterrence capability.[11] It was earlier this year that Lieutenant General Khalid Kidwai, the former Director General (DG) of Strategic Plans Division (SPD) came clean on the subject and expressly declared that Nasr was a TNW and that it forms part of the Full Spectrum Deterrence doctrine.[12]

The development of short range missiles is based on Pakistan's unwritten but consistent security policy that relies on nuclear deterrence to make up for shortfalls in conventional asymmetry in conventional weapons and rapidly shrinking defense budget.[13] Pakistan's defense budget of Pak Rs700. 2 billion (roughly equivalent to 700 million US dollars at the current exchange rate) for the 2014-15 fiscal year,[14] contrasts sharply to the Indian military budget of 2.29 trillion Indian rupees ($38.35 billion) for 2014-15.[15] Pakistan can match the Indian defence expenses but wants to maintain its posture of minimum credible deterrence within its limited financial means.

This paper intends to examine the Pakistani motivations to opt for short range nuclear capable missiles, and why these are considered essential to plug the holes in what they term as 'full spectrum deterrence.'[16]

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[11] Zahir Kazmi, "Nothing Tactical about Nuclear Weapons," May 17, 2014, *Express Tribune*,http://tribune.com.pk/story/709277/nothing-tactical-about-nuclear-weapons/ (accessed June 8, 2014).

[12] Peter Lavoy, a conversation with Gen. Khalid Kidwai, *Monitor 360* (Carnegie International Nuclear Policy Conference 2015, March 23, 2015), http://carnegieendowment.org/files/03-230315carnegieKIDWAI.pdf (accessed August 13, 2015).

[13] Adil Sultan, "Pakistan's Emerging Nuclear Posture: Impact of Drivers and Technology on Nuclear Doctrine," *Strategic Studies* (2012): 147, http://www.issi.org.pk/publication-files/1340000409_86108059.pdf (accessed October 3, 2014).

[14] Ismail Sheikh & Kamran Yousaf, "Budget 2014: Govt Announces 700bn Defence Budget," *Express Tribune* (Islamabad), June 3, 2014, http://tribune.com.pk/story/716913/budget-2014-defence-budget-increasing-at-diminishing-rate/ (accessed June 8, 2014).

[15] Sanjiv Miglani, "India Raises Military Spending, Eases Foreign Investment Limit in Arms Industry," *Reuters*, July 10, 2014, http://in.reuters.com/article/2014/07/10/india-budget-defence-idINKBN0FF0WQ20140710 (accessed August 7, 2014).

[16] Baqir Sajjad Syed, "NCA Stresses Full-spectrum Deterrence," *Dawn*, September 6, 2013, http://www.dawn.com/news/1040865 (accessed September 6, 2014).

TNW

Before proceeding any further it is important to understand what a standard TNW is like. Sometimes also referred to as a non-strategic weapon, TNW like most other nuclear weapons, is a product of the Cold War. After the iron curtain fell across Europe,[17] the US considered it expedient to deploy TNW on the territories of their North Atlantic Treaty allies to make up for the shortage of manpower and conventional weapons against the offensively configured Soviet Motor Rifle (MR) Divisions. The TNW along with the ICBM became part of the US policy of extended deterrence to thwart the Soviet aggression in Europe. Although the TNW is patently US property, sometimes the host nations are involved in the safety and security of these weapons under dual key guardianship system. This also means that their permission could be required for launching these weapons.[18] The North Atlantic Treaty Organization (NATO) war fighting strategy in Europe during the peak days of the Cold War was conceptualized at three levels. In case deterrence failed and hostilities broke out, the first phase was conventional war in the European continent. This was to be followed by a tactical nuclear battle before it evolved into an intercontinental nuclear war. In the Cold War scenario, the TNW were meant for use on the battlefield as opposed to strategic nuclear weapons, which were designed for counter value or counter force targets against big cities or large military formations, whose destruction could severely retard the enemy's war-fighting/deterrence capabilities.[19] Conventional wisdom dictated that the TNW should become obsolete after the demise of the Cold War. However, these still form part of the post-Cold War arsenals of the US and Russian nuclear forces. According to 2015 estimates the US still possesses 500 TNW, while the Russian Federation has 2000 of these.[20] Some of these

[17] Iron Curtain was the ideological conflict and physical boundary dividing Europe into two separate areas from the end of World War II in 1945 until the end of the Cold War in 1991. Read for instance Anne Applebaum, *Iron Curtain: The Crushing of Eastern Europe, 1944-1956* (Anchor, Reprint 2013).

[18] A. DeVolpi, V.E. Minkov, G.S. Stanford, and V.A. Simonenko, Alexander DeVolpi, Vladimir Minkov, Vadim Simonenko, George Stanford *Nuclear Shadowboxing: Cold War Redux* (Michigan: Fidlar Doubleday, 2004), II-23.

[19] For details of this concept read General John W. Hackett, *Third World War August 1985: A Future History* (UK: Berkley Books, 1980).

[20] Daryl Kimball, "Nuclear Weapons: Who Has What at a Glance, *"Arms Control Association*, August 2015, http://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat

TNW remain deployed in Europe. Under the East-West Confidence Building Measures (CBMs) some TNW were retired but others like the B61 gravity bombs deployed in Germany were upgraded under the Life Extension Programme (LEP) at the exorbitant cost of $6 billion.[21]

The opinion of the experts is divided about how exactly to categorize a nuclear weapon. The two commonly used methods to segregate these are their ranges and yields. However, this is perhaps an imperfect method. Traditionally lower yield weapons are considered TNW; however, some non-nuclear weapons such as the Conventional Prompt Global Strike (CPGS) weapons can actually bolster the effect of strategic deterrence manifold.[22] Another factor often overlooked in this respect is the question about who exercises authority over the use of these weapons. Whereas, the decision to use a nuclear weapon is vested in the supreme political leadership, sometimes the control is delegated to very junior officers like submarine captains and fighter pilots. The political and the military high command may actually be out of the decision making loop, when these tactical commanders are faced with the nuclear moment. During the Cuban missile crisis, there were occasions, when the world stood at the cusp of a nuclear war, as submarine commanders,[23] and strategic bomber pilots carrying nuclear weapons were tempted to press the button.[24] Junior officers, low down the chain of command have at times exercised their own judgment to prevent an automatic release of nuclear weapons. A good

(accessed August 2015).

[21] Markus Becker, "US Nuclear Weapons Upgrades: Experts Report Massive Cost Increase." *Der Spiegel*, May 16, 2012, http://www.spiegel.de/international/world/upgrading-us-nuclear-weapons-more-expensive-than-planned-a-833586.html (accessed June 15, 2014).

[22] Amy F. Woolf, "Conventional Prompt Global Strike and Long-Range Ballistic Missiles: Background and Issues," *Congressional Research Service* (February 6, 2015), https://www.fas.org/sgp/crs/nuke/R41464.pdf (accessed August 13, 2015).

[23] William Craig Reed, "Cuban Missile Crisis Secret Revealed – Four Soviet Submarines Came Within Moments of Firing Nuclear-Armed Torpedoes at US Fleet," *Ottawa Citizen*, October 31, 2012, http://blogs.ottawacitizen.com /2012/10/31/cuban-missile-crisis-secret-revealed-four-soviet-submarines-came-within -moments-of-firing-nuclear-armed-torpedoes-at-u-s-fleet/ (accessed October 3, 2014).

[24] Noam Chomsky, "Cuban Missile Crisis: How the US played Russian Roulette with Nuclear War," *The Guardian*, October 15, 2012, http://www.guardian.co.uk/commentisfree/2012/oct/15/cuban-missile-crisis-russian-roulette (accessed October 3, 2014).

example in this respect is that of Lieutenant Colonel Stanislav Petrov of the Soviet air defense command. Petrov was commanding an early warning bunker in Moscow, when an alarm sounded shortly after midnight on September 26, 1983 indicating a US missile attack. The warning was based on convincing satellite imagery, leaving Petrov with little time to validate the alarm. The Soviet colonel relied on his instincts to reject the automated suggestion, which was subsequently blamed on a freak technical happening.[25]

TNW include a wide range of weapons such as gravity bombs, short-range missiles, artillery shells, land/sea mines, depth charges, and torpedoes. Smaller man- and truck-portable weapons, like the Special Atomic Demolition Munitions,[26] and the Davy Crockett recoilless rifles, had limited utility.[27] Hypothetically, atomic demolitions can be used to render chokepoints such as at tunnels, narrow mountain passes, and long viaducts unusable. It was alleged that on January 10, 1970, a Soviet attack submarine had actually laid twenty nuclear torpedo sea mines in the Bay of Naples to deny access to the US 7th Fleet.[28] Some TNW have special features to enhance their battlefield characteristics, such as variable yield, which allows their explosive power to cover different situations, or enhanced radiation weapons – the so-called neutron bombs – to maximize ionizing radiation exposure while minimizing blast effects. New TNW may include earth penetrating bombs designed to target caves or deep-underground bunkers. Some studies indicate that these may be low yield nuclear weapons, other suggest that these may be high energy explosives. In any case the difference between nuclear and conventional weapons has blurred. The US used BLU118B Massive Ordnance Air Blast

[25] Geoffrey Forden, Pavel Podvig and Theodore A. Postol, "Colonel Petrov's good judgment," *IEEE Spectrum*, vol. 37, no. 3. (March 2000), http://www.armscontrol.ru/start /publications/petrov.htm (accessed September 19, 2014).

[26] "Atomic Demolition Munitions," http://www.brookings.edu/about/projects/archive/nucweapons/madm (accessed October 3, 2014).

[27] "M28/29 Davy Crocket Recoilless Rifle (1961)," http://www.militaryfactory.com/smallarms/detail.asp?smallarms_id=570 (accessed August 14, 2014).

[28] "Soviet Navy 'left 20 Nuclear Warheads in Bay of Naples,'" *Independent*, March 19, 2005, http://www.independent.co.uk/news/world/europe/soviet-navy-left-20-nuclear-warheads-in-bay-of-naples-6150280.html (accessed February 2013).

bomb (MOAB) to flush out Osama bin Laden and his cohorts from Tora Bora caves in 2001.[29] In December 2012, there were reports of the US Government (USG) supplying five thousand bunker busting bombs to Israel on the promise that these would not be used against buried Iranian nuclear facilities.[30] The Israelis did use some earth penetrating weapons to destroy the alleged Syrian chemical and biological weapons facility at Jimraya, near Damascus on January 31, 2013.[31] There is no credible information to prove that these were the ones supplied by the US.

National Security Policy: Deterrence versus Non-Proliferation

The Syrian example is a stark reminder that Pakistan succeeded, where many other countries failed.[32] Pakistan's nuclear quest was perilous indeed. It survived diplomatic and economic sanctions, isolation, threats of decapitating airstrikes against its enrichment facilities to build the nuclear bomb. Firebrand national leader Zulfiqar Ali Bhutto declared after the 1965 war that "*even if we have to eat grass, we will make nuclear bomb. We have no other choice.*"[33] Bhutto would not forget his famous pledge after he took over the reins of the country in 1971. He told his scientists to make him the bomb to make up for the lack of degraded conventional forces after the recent loss of East Pakistan. The Indian nuclear explosion in 1974, served to enhance the sense of urgency in the Pakistani camp to get a bomb of its

[29] U.S. Veteran reveals Atomic Bombs Dropped on Afghanistan and Iraq, PART III Nuking Tora Bora, http://www.nogw.com/download/_07_5_nukes_part3.pdf (accessed August 13, 2015).

[30] Michael Kelley, "Israel is set to Receive 5,000 US Bunker Buster Bombs after Delaying its Attack on Iran," *Business Recorder*, December 13, 2012, http://www.businessinsider.com/the-us-sale-of-5000-bunker-buster-bombs-to-israel-israel-bunker-busters-in-exchange-for-not-striking-iran-2012-12#ixzz2Jkl7qzAO (accessed January 12, 2014).

[31] "F-16s 'Fired 8 Missiles, Bunker-Buster at Syria Chemical Site,'" *Arutz Sheva*, January 31, 2013, http://www.israelnationalnews.com/News/News.aspx/164785#.UQ0oR6U4uUI (accessed August 7, 2014).

[32] Tughral Yamin, "Chemical & Biological Weapons: Positions, Prospects and Trends," *Policy Perspectives*, vol. 10, no 1, 2013.

[33] Carey Sublette, "Pakistan's Nuclear Weapons Program: The Beginning," *FAS*, January 2, 2002, http://www .nuclearweaponarchive.org/Pakistan/PakOrigin.html (accessed August 13, 2015). This is also the eponymous title of Feroz Hasan Khan, *Eating Grass: The Making of the Pakistani Bomb* (USA: Stanford Security Studies, 2012).

own. The acquisition of the bomb above all else became the overwhelmingly security preoccupation for Pakistani leaders and planners.

It was for this reason that Pakistan decided not to become a party to the Nuclear Non-Proliferation Treaty (NPT). Its resolution in this regard was reaffirmed because arch rival India had also decided not to accede to it. Those, who look through the non-proliferationist prism, consider Pakistan's strategic behavior an intellectual puzzle.[34] However, it is not difficult to understand why Pakistan chose the nuclear path. After the 1971 debacle, Pakistan looked desperately for a conventional or nuclear safety net. It was even willing to offer military bases to the US along the Balochistan coast in 1972 but there were no takers.[35] The days of ready military aid from the West had lasted as long as Pakistan functioned as a frontline state against international communism. It would again become the recipient of western military aid after the Soviet invasion of Afghanistan. Its nuclear programme would only be tolerated until the Soviets were in Afghanistan. As soon as the last Soviet soldier withdrew across the Amu Darya, the infamous Pressler would be slapped making Pakistan the most sanctioned country. For a third time Pakistan would become a non-NATO ally after the Americans invasion of Afghanistan in the wake of the 9/11 attacks. The aid that it would get this time would be of restricted nature and would be limited to military hardware to fight terrorism. This is not enough to deter India, whose burgeoning arms build-up is extremely worrisome. Bulk of the Indian conventional forces is arrayed against Pakistan and a significant part of its nuclear forces is Pakistan-specific. This perpetual state of offensive readiness is dangerous. The prospects of enduring peace appear remote without any meaningful dialogue on outstanding issues like Kashmir and the now regular violation of ceasefire along the Line of Control (LOC).

Currently Pakistan is in a bind. Its economic managers find it hard to balance the security requirements with the basic needs of its people. The counter insurgency campaign in the tribal areas bordering Afghanistan and the evolving situation in Afghanistan itself is having an impact on the internal security of Pakistan. As the US withdrawal from the country proceeds apace, India is busy enhancing its economic, military and

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[34] Rizwana Abbasi, *Pakistan and the New Nuclear Taboo: Regional Deterrence and the International Arms Control Regime* (University of Leicester: Peter Lang, 2011).

[35] Hussain Haqqani, *Pakistan: Between Mosque and Military* (Washington DC: Carnegie Endowment for International Peace, 2005), 70.

intelligence footprint in the country to the detriment of Pakistan. A two front situation would only reinforce Pakistani resolve to believe more intensely in its nuclear deterrence.

Nuclear Policy and the Possible Use of TNW

Pakistan's nuclear weapons are central to its policy of deterrence. The officials within the nuclear establishment insist that the bomb was built only to deter the existential threat from India.[36] There is nothing else to it. All these years the nuclear policy has deliberately been kept non-declaratory. The nuclear ambiguity is kept to suit the country's security objectives. Instead of a clear cut public document, policy objectives have been explained through statements and interviews. One thing is clear from these policy statements, the Pakistani nuclear weapon capability is only meant to deter an Indian offensive.[37]

Keen observers have tried to make intelligent guesses of when or where a nuclear weapon could be used by Pakistan? In a 2002 interview to a group of Italian physicists, Lieutenant General Khalid Kidwai, the then DG SPD had laid out four benchmarks in spatial, force, economic and political realms to deter an Indian attack. Although a little dated, these views are considered to be still valid to a great extent.[38] Since Pakistan does not subscribe to the No First Use (NFU) policy, a Pakistani commentator has assigned timelines for the possible use of nuclear weapons, i.e. Pre-emptive Response Threshold (PRT), Early Response Threshold (ERT), Delayed Response Threshold (DRT) and an Accumulative Response Threshold (ART).[39] The fact of the matter is that well defined nuclear thresholds and

[36] Khalid Banuri and Adil Sultan. "Comment: Building the bomb," *Daily Times* (Lahore), May 29, 2008, http://www.dailytimes.com.pk/default.asp?page=2008%5C05%5C29%5Cstory_29-5-2008_pg3_5 (accessed June 8, 2014).

[37] Tughral Yamin, "Pakistan's Nuclear Policy & Doctrine Ten Years Hence – Where do we go from here?" *Margalla Papers*, Special Edition (2008).

[38] Paolo Cotta-Ramusino and Maurizio Martellini, "Nuclear Safety, Nuclear Stability and Nuclear Strategy in Pakistan – A Concise Report of a Visit of Landau Network (January 2002): 5, http://www.centrovolta.it/landau/content/binary/pakistan%20Januray%202002.pdf (accessed January 12, 2014).

[39] Khan A. Sufyan, "Exploring Pakistan's Nuclear Thresholds – Analysis," *Eurasia Review*. May 5, 2011, http://www.eurasiareview.com/05052011-exploring-pakistans-nuclear-thresholds-analysis/ (accessed June 15, 2014).

quantified levels of minimum credible deterrence (in terms of number of warheads) can be binding and self-limiting. Having limited depth Pakistan cannot afford to draw redlines and expect the enemy to cross these before deterrence is officially considered dead. Even if the thresholds are kept deliberately vague, there are bound to be contingencies regarding when and where to use a particular kind of weapon system.

Since the short range missile Nasr had not been developed when General Kidwai had made his famous statement, there is a debate that it may be used preemptively or very early in the battle. Michael Krepon contends that the Nasr has limited value on the battlefield as it may neither be used in "stopping tank offensives or against fast-moving targets," nor "for blowing up railheads and bridges." He feels that these may best be used "to warn India against advancing deeper into Pakistani territory." He adds a caveat that this may be complicated because "the job of Pakistan's armed forces is to prevent mushroom clouds on home soil, not to create them."[40] Krepon may well be right that Nasr is only meant to deter a shallow maneuver within the framework of Indian Cold Start Doctrine (CSD). How would this be done, can be anyone's guess? Would a mere appearance on the battlefield scare off the attacker or would there be a warning shot across the bow? Would the shot land in enemy territory or would it be used on the country's own soil? This or other contingencies could be played out once the push comes to a shove.

The use of nuclear weapons on one's own soil can have serious repercussions and needs careful attention, e.g. the capability to handle a large segment of own population exposed to nuclear fallout. This is a serious issue and needs deep introspection and critical debate. In my opinion there is no harm, if a debate of a full spectrum threat is organized at the national level. Let the parliament debate and discuss all issues related to internal and external threats. Scenarios involving the possible use of nuclear weapons may be broached. The principal decision makers, i.e. the political leaders along with the military commanders can war game possible situations involving the use of nuclear weapons. The opinions of emergency managers including the National Disaster Management Authority (NDMA), Civil Defense Organization and first responders like the police force and federal and provincial emergency services can be sought. The following

[40] Michael Krepon, "Pakistan's Tactical Nuclear Weapons," *Spotlight*, April 24, 2012, http://www.stimson.org/spotlight/pakistans-tactical-nuclear-weapons/ (accessed April 25, 2014).

questions need urgent answers: Are we prepared to handle the nuclear fallout? Are there credible means for early warning? Can emergency evacuation at massive scale be organized? Are there any bomb proof shelters for the civil administration? Is there enough water to decontaminate exposed peoples and material? Is there enough trained manpower to carry out thorough decontamination? Are there plentiful vaccines to treat nuclear and radiological victims? Are there enough water and food reserves in radiation proof silos?[41]

The Challenge

Pakistan is caught confronted by a complex security conundrum. First of course is the bread versus guns dilemma, i.e. how much to spend on maintaining a posture of credible minimum deterrence without dangerously lowering the guard and second is how to retain international recognition of being a responsible nuclear state and not be branded an irresponsible proliferationist.

Ever since Pakistan became a Nuclear Weapon State (NWS), two points have been consistently made against its nuclear programme. One, it is alleged that its nuclear weapons are under the control of the military that is ostensibly not subservient to the civilian government.[42] The Pakistani strategic establishment has gone to great lengths to explain that final word in nuclear decision making rests with the civilian head of the government. They point out that the National Command Authority (NCA) – the apex body that takes all decisions regarding the development and employment of nuclear weapons – is headed by the prime minister.[43] Most of the time, this

[41] Tughral Yamin, "Nuclear Disaster Management," *IPRI Journal* (Summer 2011), http://ipripak.org/journal/summer2011/Article%204.pdf (accessed October 3, 2014).

[42] George Perkovich, "The Non-Unitary Model and Deterrence Stability in South Asia," http://www.stimson.org/images/uploads/research-pdfs/George_Perkovich-The_Non_Unitary_Model_and_Deterrence_Stability_inSouth_Asia.pdf (accessed March 23, 2014).

[43] ISPR Press Release No 133/2013 reported the meeting of the NCA held under the chairmanship of Prime Minister Muhammad Nawaz Sharif on September 5, 2013, with the Federal Ministers of Finance and Interior, the Advisor to the Prime Minister on National Security and Foreign Affairs, Special Assistant to the Prime Minister on Foreign Affairs, the Chairman Joint Chiefs of Staff Committee and the Services Chiefs in attendance,

assertion is either nonchalantly dismissed or at best ignored. The second ruse that is often used is that the Pakistani weapons are in the imminent danger of falling into the hands of the non-state actor. Again, robust safety and security measures such as the existence of a 20,000 strong security division to physically protect the strategic assets and an extensive Personnel Reliability Programme to watch and monitor those associated with the development and use of nuclear weapons,[44] are summarily ignored.

Many arguments have been made against the Pakistani policy to go for short range missiles. Typically, the following problems have been highlighted: delegating command and control of TNW to battlefield commanders, the possible use of TNW on own territory thus causing collateral damage and significantly lowering the threshold of nuclear weapon use. Oftentimes similarities have been drawn between Cold War Germany and Pakistan to impress upon the Pakistani nuclear planners, the complexities in handling TNW. It has been underscored that the deployment of short range Nasr missile is a dangerous trend since it could dangerously destabilize the deterrent stability in the subcontinent, which in any case could be upset if India retaliated to any terrorist activity 'sponsored' by Pakistan. Retaliation against a terrorist activity linked to Pakistan has not taken place so far. The last incident that occurred was the attack on the police station in Gurdaspur this year. There was a lot of media hype and angry statements but nothing more than that, because perhaps the allegation against Pakistan held no water.[45]

A conventional attack countered by TNW was conceived during the Cold War. In fact, the entire NATO planning during the Cold War was based on scenarios illustrating the unfolding of offensive operations by the Soviet/Warsaw Pact forces breaking out through the famous Fulda gap in Central Germany. The use of the TNW was visualized right from the beginning involving the battle of the covering troops by the elements of the US 5 Corps defending the Fulda Gap. One thing that always remained a

https://www.ispr.gov.pk/front/main.asp?o=t-ress_release&id=2361#pr_link2361 (accessed September 28, 2014).

[44] 'Robust Nuclear Security Mechanism in Place', Says General Wynne, ISPR Press Release No: PR124/2012-ISPR dated May 24, 2012, https://www.ispr.gov.pk/front/main.asp?o=t-press_release&id=2070 (accessed June 15, 2014).

[45] Julia Thompson, "Are India and Pakistan Sliding toward War?" *The National Interest*, July 30, 2015, http://www.nationalinterest.org/feature/are-india-pakistan-sliding-toward-war-13452 (accessed August 13, 2015).

mystery was the timing of the N moment. There were problems associated with movement of TNW, both the nuclear field artillery (M109 SP howitzers) and the nuclear missile forces (Pershing and Lance missiles), through congested German towns and cities and the clogged autobahns to their likely forward deployment sites. It was expected that the movement and deployment of TNW could be disrupted by sabotage activities of the fifth columnists. There was also friction among allies owing to differing perceptions of policies within NATO that could have caused problems in nuclear decision-making and delayed the building up of reinforcements. Based on their experiences, Cold War era NATO hands have informed Pakistan to desist from the so-called 'nuclear romanticism.' They underscore the futility of using TNW in an improved Intelligence, Surveillance and Reconnaissance (ISR) environment that could easily detect storage sites and movements up to the forward locations. The argument most often made is that Pakistan does not need battlefield nuclear weapons, when it can achieve deterrence with long-range nuclear weapons.[46]

The Pakistani strategic community finds it difficult to reconcile with similarities drawn between present day Pakistan and Cold War Germany. For one thing, the American strategy of that time saw the opening round of a hot war being fought in Germany and not continental US, where they could afford to lose some land before using TNW. This luckily never happened. The two superpowers avoided direct exchange of short and long-range missiles. The competition to increase their spheres of influence was fought in other areas. One such area was proxy wars in regions far away from their home countries. This stands in stark contrast with the security calculus of Pakistan. Owing to the lack of strategic depth it cannot afford any territorial losses. Losing real estate, even shallow ingress under the garb of the CSD or the Proactive operations is not acceptable. It would therefore use all strategic and conventional means at its disposal to enhance deterrence. Enhancing deterrence is the overarching principle of Pakistan's defensive strategy. Short range nuclear weapons are just another way of doing that. Choices are limited. Take for example the international community's low tolerance for sub-conventional warfare and the possibility of being ostracized as a country sponsoring terrorism. The Pakistani

[46] Observations collected from the *Battlefield Nuclear Weapons and Deterrence Strategies Workshop* held in Geisa, Germany in May 2014 organized by the Naval Postgraduate School (NPS), Center on Contemporary Conflict (CCC), Monterey, CA.

security conundrum is bound by many constraints. Firstly, it does not have unlimited resources. It is a hard fact that it is an extremely poor country. So once it decides to develop a weapon it is not based on any romantic notion of developing another set of exotic system in a bid to keep one step ahead of the adversary in a debilitating arms race. Secondly, it does not have many ready suppliers of defense hardware. Nuclear weapon purchase is a virtual no-go area. So, whatever it develops is based on its indigenous technical knowhow and human resource. Thirdly, Pakistan is suffering from an acute conventional asymmetry. This has dangerously lowered its nuclear threshold. It is in the interest of regional stability that there should be some kind of treaty like the Conventional Forces in Europe (CFE) to maintain a precarious strategic balance that would delay the introduction of nuclear weapons. While examining this logic, there is a need to understand the following:

International Environment

The international environment does not give complete liberty of action to non-NPT countries. This is in contrast to the virtual disregard and disdain of international norms shown by the superpowers during the Cold War. India and Pakistan despite being *de facto* NWS cannot operate outside the constraints of the existing global customs. Notwithstanding the fact that the US now seeks other ways of maintaining their global pre-eminence instead of aggressive diplomacy and direct involvement in foreign wars, South Asia is far more important a region to be left to its own devices. So there is no reason that India and Pakistan go to war with the international community led by the US merely looking on as disinterested bystanders.

Development of New Weapon System

As India and Pakistan continue building or improving their nuclear arsenals it would be unfair to merely concentrate on battlefield nuclear weapons, which are basically ground based nuclear weapons and ignore the submarine launched ballistic nuclear missiles and the Ballistic Missile Defense Shield (BMDS). These developments are likely to further skewer the strategic balance in the subcontinent.

Confidence Building Measures (CBMs)

Last but not least the role of CBMs between the two countries to lessen tensions before they reach the nuclear flashpoint needs to be explored and studied in some detail. The two countries are mature responsible nation states and can sort out their problems without seeking the help of external factors. If they are encouraged to find solutions to their own problems as rational actors, they can move on to resolve their long festering conflicts instead of resorting to wars that may lead to the use of nuclear weapons.

Pakistan has to make its case more forcefully about its abhorrence to the use of nuclear weapons of any variety. It should emphasize in all policy statements that although it does not subscribe to the policy of NFU, it will not be the one to do so in sheer desperation. That it will use all diplomatic skills at its disposal to avoid an 'apocalypse now' scenario. That it will always be the weapon of last resort. It must not indulge in irresponsible nuclear signaling in times of crises.

Conclusion

To survive in a difficult neighborhood and an unfriendly international environment is always going to be difficult. Pakistan would need a lot of diplomatic savvy to remain afloat. There are no ethics or principles in realpolitik. The notion of universal nuclear disarmament is only good for political point scoring. In real life a nuclear weapon free world is nowhere in sight. None of the recognized NWS under the Nuclear Non-Proliferation Treaty (NPT) have shown any inclination to give these up. Despite the much touted nuclear zero regime offered by Mr. Obama in his Prague 2009 speech,[47] even the US is reluctant to part with its nuclear weapons – strategic as well as non-strategic. However, this does not mean that India and Pakistan should indulge in an open ended nuclear arms race to justify their perceived security threats. The only possible way of arresting this dangerous trend is to engage in systematic strategic arms limitation talks supplemented by symmetrical reduction in conventional forces. This is easier said than done. It will require a lot of courage and foresight on part of the political leadership of both countries to embark on such a journey.■

[47] Barrack Obama's Prague Speech, 2009, Office of the Press Secretary of the White House, http://www.whitehouse.gov/the_press_office/Remarks-By-President-Barack-Obama-In-Prague-As-Delivered/ (accessed September 15, 2014).