The term ‘tactical nuclear weapon’ is a misnomer, but has gained currency through frequent usage over the years. Nuclear weapons can, of course, be used in a tactical manner implying that they could be used in a manner and against targets that would have a direct impact on the immediate battlefield. However, any decision to employ even the smallest nuclear weapons would be taken at the highest level, and the repercussions of any nuclear use would also be of strategic proportions. As early as 1945, Joseph Viner had very aptly summed up the dilemma of nuclear warfare stating that, ‘Under atom bomb warfare, the soldier in the army would be safer than his wife and children in their urban home.’

After the carnage at Hiroshima and Nagasaki many prominent scientists felt guilt for their role in creating this immensely destructive weapon that appeared to be more suited for use against large population centres rather than military targets. Albert Einstein, for instance, regretted having written a letter to President Roosevelt urging him to authorize research for the development of atomic weapons, when it became known after the war that Germans were nowhere near achieving that capability.

According to Lawrence Freedman, to those who were looking for alternatives to city busting bombs, ‘tactical nuclear weapons appeared as a means of combining the technological asset of atomic energy with a desire to fight wars in a traditional way’. When the first of these smaller nuclear weapons were produced, Robert Oppenheimer hoped that the battle could be brought back to the battlefield with these small nuclear bombs. General Omar Bradley wrote in 1949 that tactical use of nuclear weapons may help achieve a ‘stable equilibrium of forces’ since in his opinion these weapons strengthened the defensive forces. However, it was realized that the same weapons could be used by the offensive forces to their advantage for instance to punch holes in the enemy defences. A study entitled ‘Project Vista’ carried out in 1951 surmised that a combination of tactical nuclear weapons and small conventional forces could effectively defend Western Europe. In the same year, Chairman Atomic Energy Commission stated that, ‘What we are working towards here is a situation where we will have atomic weapons in almost as complete a variety as conventional ones, and a situation where we can use them in the same way.’

Such thinking was, however, short sighted as it was soon realized that these were not just more powerful bombs which could be used like any other weapon on the battlefield. One of the smallest weapons produced on the basis of these unrealistic concepts was the ‘Davy Crocket’ weighing only 76 pounds and with a range of only 2-4 kilometers. Fortunately, these weapons never had to be used. Nuclear weapons irrespective of their size are qualitatively different from

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4 Ibid.
5 Ibid.
6 Freedman, op.cit.
7 David E. Hoffman, ‘The Little Nukes that Got Away’, Foreign Policy, April 1, 2010.
conventional weapons. In particular, the long lasting impact of a nuclear explosion in the form of contamination caused by the nuclear radiation differentiates it from any conventional bomb.

Interestingly, the proponents of the small battlefield nuclear weapons were at the same time opposing the development of the ‘super’ or hydrogen bomb. In the end, both small nuclear bombs as well as the monstrous thermonuclear weapons were developed. It was believed that the battlefield nuclear weapons would compensate for NATO’s weakness in conventional forces in the European theatre and the Soviets were not expected to be able to field similar weapons in the near future. However, the Soviets were quick to match that capability and the perceived advantages were nullified. While the two super powers had produced and fielded the battlefield nuclear weapons for use in Europe away from their own homelands the situation in South Asia is very different due to the geographical contiguity of India and Pakistan and as a result any use of such weapons will have an exaggerated effect. The U.S. and the Soviet Union also had abundant fissile material stocks and could afford to use part of their stocks for the production of battlefield nuclear weapons, whereas India and Pakistan do not have the luxury of excess fissile materials to be diverted for manufacturing ‘tactical’ nuclear weapons.

In the immediate aftermath of nuclear tests in 1998 both India and Pakistan announced the adoption of credible ‘minimum deterrence’ nuclear doctrines and showed no inclination for the development of battlefield nuclear weapons. This was despite the fact that both countries had claimed to have conducted sub-kiloton nuclear devices in May 1998. An early 2002 interview the Director General of Pakistan’s Strategic Plans Division had virtually ruled out any plans to develop ‘tactical’ nuclear weapons. In any case, minimum deterrence nuclear doctrine is based on the ‘simple punishment’ model of deterrence and doesn’t involve nuclear war fighting which obviates the need for battlefield nuclear weapons. So, what has changed since the earlier policy enunciations and the present and what are the manifestations of this change.

On 19th of April 2011, Pakistan announced the successful test firing of a newly developed short range missile named ‘NASR’. This missile, with a range of 60 kilometers, can be launched from a multi-tube carrier has as the official statement described ‘shoot and scoot’ capabilities and is capable of carrying all kinds of warheads. The statement also emphasised that it has enhanced Pakistan’s deterrence at all levels of conflict. The statement clearly implies the intended use of this weapon system as a launch vehicle for battlefield nuclear weapons. The range of the missile is too short to be of use for any other purpose. This development has a wide array of implications irrespective of the technical challenges posed by such short range systems in terms of physical security, vulnerability to enemy’s counter actions, probability of being overrun by oncoming enemy forces in a fluid battle – therefore, the ‘use them or lose them’ dilemma and the challenges of maintaining effective command and control of such weapons. In July 2011, India also announced the testing of a similarly mobile short range system ‘Parahaar’ with a range of 120 kilometers, though there is ambiguity about the types of warheads it is intended to carry. Obviously, India could not have developed this system as a response to Pakistan’s testing of the Nasr, as some analysts have mistakenly stated, it was certainly in the works while Pakistan conducted the Nasr test, otherwise, it is not possible to believe that a new missile system can be developed in three to four months.

8 Nuclear safety, nuclear stability and nuclear strategy in Pakistan, A concise report of a visit by Landau Network - Centro Volta, January 2002).
There are other technical implications of these tests. Pakistan’s claim that this weapon is designed to carry nuclear warheads means that Pakistan has achieved the capability to miniaturise its nuclear warheads. This capability would have other applications as well especially for arming the cruise missiles like ‘Babur’ and ‘Raad’ and naval weapon systems in general with nuclear warheads. More importantly, it also indicates a shift in doctrinal thinking. The induction and subsequent operational deployment of battle field nuclear weapon systems means that the deterrence strategy is also moving away for the ‘simple punishment’ model of deterrence to ‘deterrence by denial’ strategy.

Such a shift, which is inevitable with the introduction of short range battle field nuclear weapons systems would also mean the building up of a larger and more varied nuclear arsenal, since deterrence by denial entails actual nuclear war fighting. This in turn will pose technical problems of its own, especially in imposing stringent demands over the existing command and control system which will have to be augmented with battle field management systems. Alternately, it may force a rethink of existing centralised negative and assertive controls over nuclear weapons and may lead to a pre-delegation of command and control with its own attendant risks. The big question however, is that in case both India and Pakistan decide to field battle field nuclear weapons, would they also have the wherewithal for battle field management and escalation control – which was found to be challenging even by the two super powers?

Pakistan’s introduction of the Nasr missile started a vibrant debate amongst the strategic analysts with one side viewing it as a dangerous development and questioning the wisdom of this move,\(^\text{10}\) while the other, though concerned with its serious repercussions looked at it as Pakistan’s response to India’s highly provocative and aggressive ‘Cold Start’ doctrine.\(^\text{11}\) Obviously, there is no denying the fact that this new Pakistani approach to nuclear deterrence in South Asia is fraught with dangers, but the Pakistani decision makers must be having some cogent reasons to move down this path. There is also no dispute in the fact that this was not the only possible response available to counter the Cold Start strategy.

Pakistan should have had more confidence in the credibility and efficacy of its existing nuclear deterrence capability which has been proven on more than one occasion. In the recent past credibility of Pakistani deterrent has been proven during the Kargil conflict, the 2001-2002 military stand-off and again after the Mumbai incident in November 2008. The last of these is most important due to the fact that India had announced its Cold Start Doctrine in 2004 and by 2008 had already conducted about half a dozen major exercises to rehearse the concept. However, when the crisis brewed they threatened surgical air strikes against suspected militant camps inside Pakistan but were deterred from contemplating the employment of Cold Start doctrine.

The Pakistani decision therefore could partly be in response to Cold Start there were others contributory factors too. A major portion of Pakistani army has been involved in counter insurgency and counter terrorism operations along its border with Afghanistan and no end is in sight to that commitment. With the Afghan end-game already on, if anything the commitment of the army is going to increase or at least stay at the current level. With the unrelenting pressure by the Americans to ‘do more’ and to start new military operations in certain tribal agencies and no respite being given by India in the east with the threat of surprise cross border offensive hanging like the proverbial sword of democles over Pakistan’s head. Add to this the complex and very serious internal security threat posed by a plethora of extremist and terrorist groups, the


nervousness of Pakistani security managers is quite understandable. Added to this explosive mix are Pakistan’s concerns about the repercussions of the U.S.-India nuclear deal for the strategic balance in South Asia and its anxieties over India’s pursuit of a Ballistic Missile Defence (BMD) capability in addition to the long standing U.S. offer to transfer BMD systems to India. The cumulative effect of all these developments would be to force Pakistan to review its earlier estimates of the size of its minimum deterrent capability. Many senior Pakistani officials have reiterated in the past that minimum deterrence is a dynamic concept and will keep adjusting to the changing security environment.12

One could only wish that these newly developed short range weapon systems do not reach the stage of operational deployment because there will be no going back from there. Such an outcome would only be possible however, with an overall improvement in the security environment in South Asia and mitigation of Pakistan’s security dilemma. This would require a smooth and orderly drawing down of the war in Afghanistan and lessening of tensions between India and Pakistan through new and innovative confidence building measures and some movement towards a peaceful resolution of their disputes. Otherwise, we should brace ourselves for two very negative developments namely the commencement of a nuclear missile arms race between India and Pakistan and to lower Pakistan’s nuclear threshold. Both US and India have to be mindful of Pakistan’s legitimate security concerns and try to release some pressure on Pakistan so as not to force it down a dangerous and slippery slope.

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