



Centre for Air Power Studies (CAPS)

Forum for National Security Studies (FNSS)

National Seminar

India's Nuclear Deterrence: Examination and Analysis



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Venue: Air Force Auditorium,
Subroto Park

Session-I Nuclear Capability and Challenges

Lt Gen Amit Sharma VSM (Retd), Former C-in-C, HQ SFC- *The Numbers Game*

- Are numbers important? Yes, to an extent.
- The point is to have a Credible Minimum Deterrent, that is, “the ability to absorb a first strike and the ability to retaliate thereafter (Massive Retaliation) to cause



unacceptable damage to the adversary. The question of 'numbers' is to be analysed in this context.

- In the prevailing circumstances of vertical proliferation and modernisation of nuclear weapons, India must closely monitor capabilities developing in its neighbourhood and choose its own modernisation path based on its CMD requirements.

Prof. R Rajaraman, Emeritus Professor of Physics, School of Physical Sciences, JNU–
The Testing Question

- Discussed the subject of nuclear testing and threw some light on the dilemma raised by the critics of India's 1998 nuclear tests.
- While the DAE scientists claimed the 1998 nuclear tests were successful, these claims were contested by some based on the available seismic data. Dr.K Santhanam, a former DRDO's scientist and chief field in charge of Pokhran-II, also expressed similar claims. The matter of fusion test is still unresolved.
- But no report can claim that the fission device which India had tested during Pokhran-II is a failure.
- While assessing India's deterrent in the context of the 1998 controversy, it must be remembered that India views nuclear weapons not for warfighting but as instrument of deterrence. Nuclear deterrence is to be achieved by the ability to inflict sufficient punishment. This can be achieved with a fission device.
- Additionally, on the question of further testing, issues such as the cost factor, international opprobrium and the reputation of India being a responsible nuclear power, as well as the implications on India's NSG membership should be kept in mind.
- Further nuclear testing is not necessary for purpose of deterrence.

Capability Choices- BMD, TNWs and MIRV**Prof. Rajesh Rajagopalan, Prof. CIPOD, JNU- BMD**

- BMD in Indian context, can only be of limited use.
- It can be useful to national security in three ways. It can provide protection to: 1) Population, Industry etc. 2) Retaliatory Forces/ Second Strike Forces 3) National Command Authority of all these three. BMD is clearly least effective in protecting population as India is a large country. Providing a shield for India is going to be difficult and this option is not worth pursuing.
- Protecting the retaliatory forces is the second option that India seeks to use the BMD for, but it becomes problematic when compared with to the Chinese capability. Additionally, the same purpose can be ensured through a number of other available measures, e.g.: mobile arsenal, or even deception in terms of the number of nuclear weapons.
- Third and final use of BMD for India is to protect the national command authority. This is to be viewed with the NFU doctrine as India would have to absorb the first strike. In this case too, however, BMD renders limited use as the National Command Authority (NCA) can be protected by other means such as hardened structures. BMD is not ruled out completely, but focus on survivability of the NCA is to be based not on BMD but others ways of ensuring deception.

Dr ManpreetSethi , Senior Fellow CAPS, - TNWs:

- Pakistan assumes that the use of TNWs would cause damage that would be too low to provoke retaliation of a full-fledged nuclear war, and, that the use of TNWs would be too big an event for international community to stay out of conflict. Pakistan also assumes that India is too 'soft' to retaliate and the pressure not to retaliate with nuclear weapons from the international community will be unbearable, thus justifying Pakistan's choice of building TNWs.
- In order to respond to such a Pak strategy, India may look at three possibilities:

- First, India can build Tactical Nuclear Weapons (TNW) but this is unnecessary and may even be dangerous. India has learnt from futility of Cold War stockpile build-up and related nuclear war fighting strategies.
- Second, India can tweak the 'massive retaliation' attribute of its nuclear doctrine. But this is not as long as the credibility of MR can be projected.
- Third, India can improve its signalling in terms of capability and deterrence. This is certainly necessary. Pakistan does not doubt India's capability but rather its credibility to act. India can therefore be clear on its credibility to respond by emphasising no distinction between the types of NWs and signal its capability to fight through the nuclear environment
- MR, is India's version of brinksmanship. While Pakistan's notion of brinksmanship seeks to deter any aggression by maximising fear of escalation to a nuclear level, India seeks to deter use of nuclear weapons by maximising fear of extreme nuclear escalation. It should be further understood that MR should be massive in impact, not necessarily in terms of number of nuclear war heads. The objective is to engage a choice of targets to cause unacceptable damage.

Brig. ArunSahgal, PhD. Director, Forum for Strategic Initiative, - MIRV

- Presented a contrary view to Prof Rajesh Rajagopalan on BMD..
- The current nuclear reality for India includes development of MIRVed missiles. This impacts India's ability to undertake retaliation with only one warhead per missile. Owing to these developments in the neighbourhood- especially with respect to deployment structure-the kind of attack that may be imagined would call for more developments on India's part.
- While the Indian doctrinal thinking might prevent it from assertively following a MIRV option, it would eventually have to do so for the sake of deterrence. India is well on the pathway of developing MIRV capability and it should continue on its path.

Session-II Credible Deterrence through Effective Communication**Zorawar Daulet Singh , Adjunct Fellow, Institute of Chinese Studies- *No First Use***

- NFU, in the Indian context, is a stable posture as the basic purpose is to counter nuclear coercion and not to redress a conventional gap. Thus, the NFU posture is sufficient for a core defensive purpose. There are, however, certain questions that formed the part of generic debate concerning India's NFU posture.
- India should not consider a change on NFU- to counter coercion at conventional level- as the conventional capability to deal with these threats already exists. India's conventional setting is fairly stable.

Lt Gen Philip Campose, COAS Chair of Excellence – CLAWS- *Massive Retaliation* –

- The core of nuclear deterrence in the Indian context involves convincing potential adversaries that the cost of an undesirable action, in the form of a nuclear, chemical or biological attack, will be more than the rewards – as it will be responded to by an assured nuclear attack with much greater force.
- Massive Retaliation highlights two elements of the deterrent – 'Assured Retaliation' and 'No Limit on Level of Response'
- *Massive Retaliation, as a pillar of the Indian Nuclear Doctrine, echoes following aspects:*
 - (a) Nuclear security with a thrust on deterrence.
 - (b) Rejection of distinction between tactical and strategic weapons.
 - (c) Ambiguity of response.
- *Massive Retaliation : A Politico- Psychological Concept*
Massive Retaliation, combined with No First Use requires:
 - (a) Adequate numbers of weapons;
 - (b) Second strike capability and survivability;
 - (c) Triad of delivery means;
 - (d) Robust Command and Control means;
 - (e) Safety and security of the arsenal;

- (f) Operational planning, training and preparedness of the Force, and
- (g) Civilian Control.

- It is argued that massive retaliation may not be implementable in some scenario vis-a-vis Pakistan. Taking an extreme position may appear excessive. There may arise a sense of incongruity with India's moral position and policy of NFU. It may motivate Pakistan to go for a heavier 'first (nuclear) strike' and target counter value targets. But MR does not prevent flexibility in response. That is still a possible within current gamut of strategic weapons (in terms of lesser numbers or yield of weapons).
 - Essence of 'massive retaliation' for the purpose of deterrence lies in threatening the heartland of the adversary, rather than conducting nuclear exchanges. The term 'Massive retaliation' cannot be clearly defined – its ambiguity enhances deterrence. Massive retaliation is a less expensive option. In addition, even if India opted for a 'flexible response' it would not contribute to deterrence against terror policy of Pakistan.
 - India's nuclear deterrence is largely credible so far as we have been able to prevent nuclear adventurism by Pakistan and nuclear coercion/conventional attack by China. It is clear that India's nuclear doctrine (NFU, CMD & MR) is adequate. More effort is needed to ensure survivability and the credibly signal resolve for retaliation.
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