



Event's Report

National Webinar

on

Nuclear Strategy

on

20 January 2022

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Centre for Air Powers Studies (CAPS) organized the 17th edition of its National Seminar on Nuclear Strategy on 20 January 2022. Conducted in the virtual format, it was attended by over 350 people from across the country, including a large number of stations of Indian Air Force. In his welcome remarks, Director General, CAPS, Air Marshal Anil Chopra (retd) gave a comprehensive overview of the grim global nuclear situation and highlighted India's unique nuclear challenges. He described China as a rising global power that has been flexing expansionist muscles especially in South China Sea and on India's borders. Its increasing nuclear numbers and deployment of new capabilities has led American intelligence to state that it "almost certainly keeps the majority of its nuclear force on a peacetime status, with separated launchers, missiles, and warheads." On the other side, Pakistan has focussed on building a second-strike capability, including road-mobile missiles and state-of-the-art air defences around strategic sites, besides other concealment measures. India has been steadily building survivability of its nuclear forces in a restrained and responsible manner.

The inaugural address was delivered by Dr Saraswat who presented a 360-degree view of the nuclear issues ranging from global nuclear security regime to the current strategies of nuclear deterrence, capability build-up across nations, impact of emerging technologies on nuclear deterrence, and the state of disarmament. He argued that India's nuclear stockpile must have the attributes required to maintain sufficient diversity and flexibility for deterrence. He put particular focus on the integration of newer technologies and their spin-offs for nuclear forces. Dr. Saraswat highlighted the growing dependence of nuclear command and control on cyber capabilities, artificial intelligence, quantum computing and man-machine interface.

Session I on 'The Contemporary Nuclear Weapons Landscape' was chaired by Mr Rakesh Sood who noted the mismatch between the recent P-5 statement and the ongoing nuclear modernization amongst all the five states. This was further explained by Mr. Abhishek Saxena in his presentation on nuclear strategies, capabilities and force postures of USA, Russia, UK and France. He particularly highlighted the trends of increased reliance on nuclear weapons and deterrence, ongoing modernization, impact of emerging technologies and the offence-defence spiral by providing details of the nuclear arsenals of the four countries.



Lt Gen Narasimhan (Retd) focused on recent nuclear developments in China. He noted the shifts in China's doctrine from minimum to limited nuclear deterrence with an eye on gaining limited nuclear war-fighting capability. In future, China will continue to modestly expand its nuclear arsenal as well as pursue its sophistication, including of early warning systems through space-based ISR.

In her presentation on recent nuclear developments in Pakistan, Dr Chawla explained that the aggressive nuclear posturing that Pakistan had adopted after revocation of article 370 by India had somewhat reduced since last year since the country is trying to show responsible behaviour for seeking economic assistance from IMF and escaping the black list of FATF. Nevertheless, given Pakistani military's focus on arsenal modernization, it continues to draw attention to the threat from India. Testing of new kinds of missiles such as Ababeel and Babur continue.

Session II on 'Assessing Credibility of India's Nuclear Strategy' was chaired by Air Marshal NJS Dhillon (Retd). He underlined that credibility of nuclear deterrence rests on four pillars: will of the nation as represented by national leadership; military capability comprising of conventional and nuclear arsenals and their survivability; technical capability to provide robust communication during hostilities; and, secrecy to ensure security of the national leadership and arsenal.

Lt Gen Amit Sharma (Retd) dwelt on credible minimum deterrence in India's nuclear doctrine and opined that the numbers in India's nuclear arsenal will remain dynamic based on changing threat perceptions. He emphasized the need for a nuclear triad in order to ensure a credible second-strike capability. For a continuous at-sea deterrent posture, India will need at least four SSBNs with a range of missiles of at least 5,000 kms. For air leg, he recommended that India should improve its offensive kill capability of gravity bombs, and with respect to the land-based missiles, he expressed the need to take the ranges up to 7,500kms. The missiles should also be canisterised and MIRVed. New technologies such as artificial intelligence and quantum communications must be developed for more robust nuclear command and control systems.

Dr Manpreet Sethi examined the perceived credibility gap between Pakistan's projected use of tactical nuclear weapons (TNW) and India's doctrine of massive retaliation (MR). She debunked this by explaining the futility of use of TNWs for a military objective and the dangers of a belief system that nuclear escalation can be controlled. Decrying the need for TNWs in India's arsenal for a 'proportionate' response, she endorsed the deterrence value of disproportionate response as suggested by MR. She also explained that massive need not mean use of "all we have" because deterrence is signalled not through the fear of numbers launched but with the damage that would be caused. The nature of nuclear weapons is to cause mass destruction and given the density of population in both countries, their use would inevitably cause massive damage.



Prof Rajesh Rajagopalan examined the sufficiency and credibility of No-First Use (NFU) for India. Given that the country has ascribed a narrow role of deterring adversary's nuclear weapons, he explained that India's nuclear weapons were not a substitute for conventional military capability, nor an instrument for fighting terrorism. The credibility of NFU depends on the "means and will" to retaliate. The only credible justification for first use of nuclear weapon could be when a country is facing an existential threat. India is unlikely to face such a threat even a worst-case scenario with China and Pakistan. Hence NFU remains the best option for India because first use would, in fact, bring back an existential threat for India. He also noted that the argument that nuclear pre-emption should happen when intelligence inputs on preparation of nuclear use are received was incorrect. No political leader is likely to base a decision to launch nuclear weapons on intelligence inputs alone since the consequence of a mistake would be huge for the nation. He also highlighted that changing to a first use doctrine would mean equipping India with a new highly sophisticated force structure entailing high financial cost.

Some important points that came up in a rich discussion included:

- US-USSR strategic stability was helped by acknowledgement of mutual vulnerability. This is missing in the US-China relationship, which is leading China to expand and modernize its nuclear arsenal.
- Despite China's move to ambiguity on NFU or Pakistan's projected irrationality, there is still no reason for India to emulate any of those examples. Its doctrine is sane and stabilizing and is best suited to India's interests.
- Escalation control after use of nuclear weapons would be very difficult to exercise. Therefore, signalling the ability to respond in a graduated manner on the nuclear escalation ladder is foolish and dangerous.
- Threatening Pakistan with TNWs is unlikely to deter its acts of terrorism. For this, India has to showcase its punitive conventional capability that can be exercised irrespective of Pak projected low nuclear threshold.
- India has a unique and prudent nuclear strategy. The focus should be on requisite capability build-up to ensure survivability and signalling of will.

In his closing remarks, DG, CAPS underscored that deterrence instability is today a global concern. Lack of dialogue, risks of misperceptions, and unregulated technological advancements afflict all nuclear dyads. The Strategic Stability Dialogue between USA, Russia and maybe China is awaited, but results may be a long time in coming. Meanwhile, AI, cyber, hypersonics, improved BMD, multiple warheads, space supported delivery, offense-defence spiral will impact deterrence. He recommended that India must factor in these developments.