AFTER ARIHANT, ARJUN, TEJAS...IT'S AGNI

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"Deterrence is the art of producing, in the mind of the enemy, the fear to attack".

Sterling Hayden

As Indian defence apparatus continues to strive for credible deterrence, the recent successful launch of Agni IV is yet another milestone in this direction. On 20 January 2014, at 10:52 hrs, the 4000 kms range nuclear capable ballistic missile was successfully launched from the Wheeler Island off the coast of Odisha.[i] Agni IV is the part of the intermediate range ballistic missile Agni series, developed and tested by Defence Research and Development Organisation (DRDO). The recent launch is the third consecutive test of Agni IV, prior to this two more tests were held. The first was done on 15 November 2011 from the Wheeler Island, when the Agni IV made its maiden launch from a road mobile launcher and met all the set objectives. The second test was conducted on 19 September 2012 when it was successfully tested for its full range and called as "one of the most stupendous missions" by then Scientific Adviser to the Defence Minister, V.K. Saraswat.[ii]

The latest test of Agni-IV missile was propelled by composite solid fuel rocket motor technology and was launched from its road mobile launcher which was indigenously developed by DRDO. The long range Radars and Electro-Optical Tracking Systems (EOTS) located all along the coast have tracked and monitored all the parameters throughout the flight.[iii] Confirming the successful launch, the test range director M.V.K.V. Prasad said, "The test was a hundred percent success. It has met all mission requirements. It was a developmental trial by the DRDO. It was a pre-induction test."[iv]

Applauding the success of the Agni IV, the Scientific Adviser to the Defence Minister and Secretary, Department of Defence, who commanded the launch sequence, Avinash Chander said, "... Seen together with recent momentous events: the second launch of Agni V, operational clearance of Tejas – Light

Combat Aircraft, achieving the criticality of nuclear rector of India's first nuclear powered submarine 'Arihant', completion of development phase of underwater launched missile BO5 and development of mark II version of 'Arjun – Main battle tank, it also reflects the high maturity level of India's capabilities in design development and leading to production, contemporary weapons and platforms for strengthening its deterrence and defence capabilities."[v]

Over the last decade, India has fundamentally expanded the scale and scope of its material nuclear capabilities. [vi]Agni IV is that missile which according to DRDO missile technologists opens a new era" for India in the class of long-range missiles to carry strategic [nuclear] warheads for the armed forces and "provides a fantastic deterrence. [vii] While underlying the India's intention of the longer range Agni missiles Raja Mohan, former Strategic Affairs editor of *The Hindu* noted in 1999 that, " India has been dying to get this (Agni II) capability vis-à-vis China. For India it is now being able to look at China in the eye to say we are equal now. The central element of this long range missile for India is about gaining parity with the Chinese, parity not in numbers of missiles, but we have the ability to deliver nuclear weapons on to China and thereby gain a credible deterrence against China." [viii]

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The 20 meters long surface-to-surface missile weighs 17000 kg and can carry a payload of conventional explosives of 800kg. While elaborating on the specifications of the Agni IV, the press release by the Press Information Bureau (PIB) stated, "Agni-IV is equipped with state-of-the-art Avionics, 5th generation On Board Computer and distributed architecture. It has the latest features to correct and guide itself for inflight disturbances. The most accurate Ring Laser Gyro based Inertial Navigation System (RINS) and supported by highly reliable redundant Micro Navigation System (MINGS), ensured the vehicle reach the target within two digit accuracy."

Highlighting the deterrence potential of the country, the PIB press release further stated, "Agni-I, II, III and Prithvi are already in the arsenal of armed forces, giving them reach of over 3000 km, giving India an effective deterrence capability." Furthermore these tests have always enhanced the self image and the confidence of the country. India's steadfast and ultimately successful resistance to the Non-Proliferation Treaty (NPT) regime, which had excluded it from its privileged tier, is widely seen as a unique political achievement that only a country with true great power potential could have pulled off. [ix] Thus the latest launch test is another step forward in strengthening the credible deterrence milieu of the country.

(Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the position of the Centre for Air Power Studies CAPS)

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[vii] Agni-IV test-flight a 'stupendous success.'Date 15 November 2011.URL http://www.thehindu.com/news/national/article2629274.ece.URL assessed on 20 January 2014

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