

Agni-V Test Launch and Its Implications

Major General YK Gera (Retd)*

Introduction

India launched Agni-V missile on 19 April 2012. It has a range of 5000 km and can deliver multiple warheads. It was test fired from Wheeler Island approximately 2000 kms South East of Delhi. A 17.5 metres long missile which has the capacity to carry 1 to 1.5 tons of conventional or nuclear warheads, is likely to be a formidable missile in India's strategic military arsenal. Scientists claim that there has been a "giant leap" in the missile development programme from a single stage liquid propelled surface to surface Prithvi Missile, with a range of 150 kms or so first launched in 1988; to three stage solid propelled Agni-V.

The launch of Agni-V is India's third consecutive strategic missile launch in three years. In February 2010, India test fired Agni III with a range of 3,000 to 3,500 kms; followed by Agni IV with range of 3,200 to 3,700 kms. Agni II has a range of 2,000 to 2,500 kms. It has strengthened Indian defence capability and put India in the list of small club of nations who possess ICBM capabilities, namely; the US, France, Britain, Russia and China. Some experts point out that it is not quite an Intercontinental Ballistic Missile (ICBM) as is being claimed by the media. Going by the accepted classification, an ICBM must have a minimum range of 5,500 km. China puts this figure at 8,000 kms. The Chinese Dong Feng-5 (CSS-4) missile has a range of 13,000 kms and can hit a target anywhere on the planet. Technically, therefore, Agni-V is a Medium Range Ballistic Missile (MRBM). However, it is only a matter of time when this range is further enhanced. Analysts say, given India's skills in launching heavy satellites and planetary probes, it could soon field a powerful missile to send warheads over intercontinental ranges. Comparative table pertaining to Ballistic

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Missiles with China, India and Pakistan is given below:-

COMPARATIVE TABLE

Ballistic Missiles

CHINA			INDIA			PAKISTAN		
Name	Range (km)	Warhead (tons)	Name	Range (km)	Warhead (tons)	Name	Range (km)	Warhead (tons)
DF-3A (CSS-2)	3,100	2	Agni I	700–1,200	1	Ghaznavi	320	1
DF-4 (CSS-3)	5,400	2	Agni II	2,000–2,500	1	Gauri	950	1
DF-5 (CSS-4)	13,000	2	Agni III	3,000–5,000	1.5	Shaheen 1	735	1
DF-21 (CSS-5)	2,150 to 3,000	0.70	Agni IV	3,200–3,700	0.7	Shaheen 2	>1200	1
DF-31 (CSS-10)	7,200	1	Agni V	5,000	1 to 1.5	Shaheen1A (Hatf IV)	2000	1
DF-31A (CSS-10 Mods1 and 2)	11,200	1.8						

Source: Arms Control Association, "Worldwide Ballistic Missile Inventories". Updated upto January 2012.

Strategic Implications

India's Nuclear Doctrine

India's nuclear doctrine has a declared 'No First Use' (NFU) policy. It also states that it will respond with punitive retaliation should deterrence fail. For 'No First Use', Agni-V may be a deterrent, but for a punitive retaliation, accurate nuclear weapons to inflict damage unacceptable to the aggressor are required. To survive the first kill, operationally prepared and survivable silos, and well trained nuclear forces are essential. Agni-V with its three stage solid propellant is being talked about as a "Game Changer". It is bound to be a great asset in developing ICBM with Multiple Independently Targetable Re-entry Vehicle (MIRV). Agni-V is just a delivery system. Triad system and its operational feasibility are yet to be tested and so is the terminal phase accuracy on land and air to be assessed. Thus a lot more needs to be done. During his speech at International Institute of Strategic Studies, London, the Indian Naval Chief Admiral Nirmal Verma said, "A retaliatory strike capability that is credible and invulnerable is an imperative. The

Navy is poised to complete the triad, and our maritime and nuclear doctrines would then be aligned to ensure that our nuclear insurance will come from the sea.”¹ This statement encompasses synergy of technology, infrastructure and training of nuclear forces.

Deterrent Capability

The success of the launch has to be seen as providing the country a deterrent capability with the aim of dissuading a hostile adversary from indulging in adventurism. A section of media has attempted to link success of the launch to targeting of specific countries. This needs to be curbed. In our euphoria, we should not lose sight of pragmatism. The successful launch has enhanced Indian capability to safeguard our legitimate interests and defend them if required. While it strengthens our defensive posture, it is by no means a challenge to anyone else, nor an attempt to initiate an arms race in the region. Additional range of Agni-V does not radically alter strategic stability in Asia. On the other hand Agni-V may even enhance stability in Asia. India has always stood for peace and it covets no one's territory. Survivability, range, mobility and flexibility are part of minimum nuclear deterrence that is credible. A lot more needs to be done by India. Just as capabilities play a role, so do perceptions for deterrence to be credible and effective, whose sole purpose is prevention of Nuclear War. Further in order to retain our strategic autonomy, India needs to guard against – coercion, compellance, arm-twisting and nuclear blackmail. Considering that our current geo-political environment is fraught with hazards, Agni-V should bring reassurance to our Security Planners.

Ballistic Missile Defence

India has been pursuing BMD programme since 2006. India and Pakistan have fought wars since 1947 periodically. The two countries are neighbours but not friends. Pakistan possesses nuclear weapons and missiles. Pakistan's nuclear arsenal is India-centric. She has not adopted NFU policy. Pakistan has a number of terrorist groups and pursues terrorism as a matter of state policy. The security situation in Pakistan is not encouraging and there is possibility of nuclear weapons falling in the hands of non-state actors. To offset a possible first strike and guard against the “loose nuke” situation from Pakistan, India needs BMD. Geographic proximity gives the BMD system limited reaction time

to respond. An arms race between defence and offence is destabilising in itself, and the effect could be magnified by possible false alarms and the demand for fast decision making.

Apart from Pakistan, China is also a factor for BMD programme. Both India and China have declared NFU doctrine. China and India have unsettled and disputed land borders. China illegally claims 90,000 sq km approximately of Indian territory in Arunachal Pradesh and is in illegal occupation of approximately 38,000 sq km in Aksai Chin. NFU policy is not explicit regarding use of nuclear arsenal in claimed territory. India has to be cautious about exploitation of such ambiguity in the event of hostile environment emerging on the borders.

Following China's ASAT test in 2007, India announced that its BMD programme would be expanded to include ASAT Programme. An Indian reaction to the Chinese test is likely to touch off a response in Pakistan. Given the history of Beijing's assistance to Islamabad in nuclear and missile technology, India views growing China-Pakistan ties with concern. Outer space is the next domain. China launched Pakistan's advanced communications satellite, PAKSAT-IR, on board China's Satellite Launch Vehicle from the Xichang Satellite Launch Centre in Sichuan Province on 11 August 2011. Outer space capabilities serve as another reason to pursue BMD. To develop an integrated BMD system, ground-based long-range radar installations must be supplemented with space-based early warning capabilities.

Neutralising adversary's satellites and protecting own is the key to space research. India has been doing endo and exo-atmospheric missile defence intercept tests. Agni III has the capability to hit a satellite. Agni-V will enable us to intercept target missiles at longer ranges thus giving India the ability to intercept ICBMs. India is working on an Advanced Air Defence (AAD) system. A full multi layered defence against Ballistic Missiles requires both terrestrial as well as space based surveillance and kill systems. A lot more needs to be done in this field.

Security Dynamics and Ground Realities

Role of the USA

Unlike in the past when the USA went in for embargoes and financial cuts, this time the response was generally muted. The

mutated American response despite Washington's concern over missile programmes of Iran and North Korea, is indicative of improvement in the Indo-US bilateral relations over the last 15 years or so. Although the US urged for restraint, she still praised India for her impeccable nonproliferation track record. This is indicative of its mature understanding of India's security concerns. The reasons for this change can be economic and strategic. Economically, the US recognises India's stable economic growth and sees India as a potential market for its companies. Indo-US bilateral trade agreements are getting stronger. Strategically, emergence of economically, militarily strong and assertive China is a cause for concern for the world community, particularly the USA. China's aggressive posture in the South China Sea, against Taiwan and in the Indian Ocean etc is worrisome. The Obama administration, while trying to extract itself from Afghanistan, is now cultivating alliances with Asian nations and redirecting its strategic and military focus towards Asia to manage China's new and increasing military clout. The US supports India's rise. President Obama has also endorsed India's claim to a permanent seat at the UN Security Council. The US Defence Secretary Leon Panetta visited Delhi in the month of June 2012 and declared India the "*lynchpin*"² of the new American military strategy in Asia. While both India and the US have declared that their expanding defence cooperation is not directed at third parties, Beijing is concerned about the potential Indian role in the unfolding US military pivot towards Asia-Pacific.

As far as US non-proliferation policy is concerned, some analysts are of the view that it should not be a one way street, where potentially aggressive, non status quo power like China build up their nuclear and ballistic missile forces and the US responds by criticising its friends and allies for responding to emerging threat. A good option for confronting proliferation is to prepare to respond in kind. Consequently, the US hailed India narrowing the missile gap with China.

Response of Pakistan

Within days after India launched Agni-V, Pakistan test-fired Hatf IV Shaheen-1A, nuclear-capable Intermediate Range Ballistic Missile (IRBM) with range of 2000 kms. Lt Gen Khalid Ahmad Kidwai, Commander Pakistan Nuclear Command claimed ³ : '*The*

improved version of Shaheen 1A will further consolidate and strengthen Pakistan's deterrence abilities'.

Mansoor Ahmed, a Defence Analyst based in Islamabad said,⁴ *"Agni-V added to India's growing second strike capabilities, particularly if India can construct a naval version of the Agni-V to deploy on its nuclear-powered submarines. A submarine-based missile can be deployed beyond the reach of a Pakistani first strike, thus ensuring survivability of its nuclear force".*

Response of China

Chinese experts have described Agni-V test as an event of great geo-strategic portent. There is more to India's successful long-range nuclear capable missile Agni-V, than what was being admitted by India. In response to India's improved ability to deter China's nuclear arsenal, a Foreign Ministry spokesman in Beijing said,⁵ *"India and China are not rivals but cooperative partners. We believe the two countries should cherish the hard-won momentum of sound bilateral relations".* However, CCTV, China's state TV Network, questioned the accuracy of the Agni-V Guidance System and said the missile's 50 ton weight would force it to be launched from a fixed location, making it an easy target.⁶

Conclusion

Agni-V deployed in modest numbers is not likely to ring alarm bells. It, however, would signify maturity of India's nuclear forces and effort to achieve credible minimum deterrence. This is not about India adopting a nuclear posture of counterforce and nuclear war-fighting.

At a time when China's relations with the USA and many Asian neighbours have become tense, Delhi is deepening its engagement with Washington, Tokyo, Hanoi and the ASEAN region in general. What Delhi and Beijing should do is to have a frank dialogue on their respective regional security interests, find ways to reduce friction and explore prospects for joint promotion of stability and security in Asia and its environs.

Endnotes

1. Saurav Jha, Towards a Nuclear Insurance, Geopolitics, Vol III, Issue III August 2012, PP 16.

2. The Indian Express. "US says India 'lynchpin' of rebalancing strategy". 07 June 2012.
3. The Express Tribune, "Missile deterrence : Pakistan tests nuclear capable ballistic missile". 26 April 2012.
4. Heather Timmons and Jim Yardley, "Signs of an Asian Arms Build up in India's Missile Test".
5. *ibid.*
6. *ibid.*

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