



## **INDIA AND THE UNITED STATES: TOWARDS CO-DEVELOPMENT OF THE JAVELIN?**

*By Debalina Ghoshal, Associate Fellow, CAPS*

The United States Department of Defence had proposed to the Indian Ministry of Defence to jointly develop the next generation anti-tank missile called the Javelin. On October 1, reports confirmed that the deal was sealed.<sup>1</sup> If all goes smoothly, this would be the first time India would be co-developing a weapon system with the US. This move is expected to “deepen defence ties” between India and the US<sup>2</sup> and also take forward the Defence Trade and Technology Initiative. India, on the other hand, is looking for sophisticated weapon systems to protect its infantry. The anti-tank missile is reported to be “world’s premier man-portable anti-tank missile” which would provide infantry men who are “highly vulnerable” to the adversary’s tanks on the battlefield, “a weapon with which to destroy heavy armoured vehicles from a distance of 2.5km”.<sup>3</sup>

Such decisions of the US to co-develop the Javelin came after India started looking beyond the US and considered Israeli anti-tank missiles too. The US decision of not agreeing to the idea of ‘transfer of technology’ with India resulted in the Indian Army conducting trials of the Israeli Spike anti-tank missile which is also a ‘fire and forget’

<sup>1</sup> “US offers to co-develop anti-tank missile”, *OMAN TRIBUNE*, <<http://www.omantribune.com/index.php?page=news&id=152630&heading=India>>

<sup>2</sup> Andrea Shalal-Esa, “U.S. eyes co-development of anti-tank missile with India”, *REUTERS*, September 19, 2013. <<http://www.reuters.com/article/2013/09/20/usa-india-military-idUSL2N0HG00N20130920>>

<sup>3</sup> Ajai Shukla, “US offers to co-develop new Javelin missile with India”, *Business Standard*, September 30, 2013. <[http://www.business-standard.com/article/current-affairs/us-offers-to-co-develop-new-javelin-missile-with-india-113091600624\\_1.html](http://www.business-standard.com/article/current-affairs/us-offers-to-co-develop-new-javelin-missile-with-india-113091600624_1.html)>

missile and can be shoulder launched like the Javelin.<sup>4</sup> Probably the US does not want to lose out on the opportunity of investing in the private defence sector of India. Also in 2013, Indian Army Chief called for a fresh process of the Spike deal due to fears of single tender procurement which could result to controversies for the Indian Army. <sup>5</sup>By September 2013, this move by the US of agreeing to co-develop the Javelin with India could be the US trying to exploit India's state of indecisiveness regarding the Spike deal.

Earlier India had planned to order the Javelin anti-tank missile from the US under the Foreign Military Sales <sup>6</sup>due to the delay in its own indigenous anti-tank missile, the Nag. The Nag is reported to be under the Integrated Guided Missile Development Program of India's Defence Research and Development Organisation (DRDO). However, recently the US in its zeal to tap potential of the Indian and American private sectors in the field of defence has offered to co-develop the weapon system with India. This would enable India to develop the anti-tank missile according to its own needs. Both the Javelin and the Nag are reported to have a capability to attack tanks which are equipped with Explosive Reactive Armour.

The Nag has been delayed for a while and this delay could actually betray the missile's cost effectiveness. However, while the Javelin can be shoulder launched, the Nag has the advantage of being launched from tanks and helicopters also. If one quotes VS Arunachalam, the then head of DRDO when the Integrated Guided Missile Development Program was set up, "The global environment has now changed. Countries are now coming forward offering cooperation in many areas of technology. They talk of shared advanced technologies and joint ventures. While welcoming them we should not abandon our commitment to be independent in critical technologies". <sup>7</sup>

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<sup>4</sup> Rajat Pandit, "Israel pips US in anti-tank guided missile supply", *The Times of India*, November 29, 2012. <[http://articles.timesofindia.indiatimes.com/2012-11-29/india/35434262\\_1\\_namicas-konkurs-nag-missile](http://articles.timesofindia.indiatimes.com/2012-11-29/india/35434262_1_namicas-konkurs-nag-missile)>

<sup>5</sup> "Scam-wary Army calls off Israeli missile deal", *The Times of India*, April 13, 2013. <[http://articles.timesofindia.indiatimes.com/2013-04-13/india/38510911\\_1\\_indian-army-general-bikram-singh-defence-procurement-procedure](http://articles.timesofindia.indiatimes.com/2013-04-13/india/38510911_1_indian-army-general-bikram-singh-defence-procurement-procedure)>

<sup>6</sup> "DOD looks to deepen ties with India, co-develop anti-tank missile", *Washington Business Journal*, September 20, 2013. <[http://www.bizjournals.com/washington/blog/fedbiz\\_daily/2013/09/dod-looks-to-deepen-ties-with-india.html](http://www.bizjournals.com/washington/blog/fedbiz_daily/2013/09/dod-looks-to-deepen-ties-with-india.html)>

<sup>7</sup> As quoted in Ajai Shukla, "India's missiles story", *Business Standard*, September 20, 2013. <[http://www.business-standard.com/article/beyond-business/india-s-missiles-story-113092001166\\_1.html](http://www.business-standard.com/article/beyond-business/india-s-missiles-story-113092001166_1.html)>

After the failed tests in 2012, realising the incapability of the Nag to be effective in very high temperatures, the DRDO is developing new seekers to make the Nag anti-tank missile perform well even in extremely hot temperatures<sup>8</sup> “with more efficiency and accuracy in hitting targets with improved detectors on the missile tip for sensing heat and infra red signals”.<sup>9</sup> If successful, the missile can boast of a range of 4km as against the Javelin with a range of 2kms.

Both Pakistan and China are modernising their armoured forces. In fact the new Chinese Main Battle Tank is reported to be fitted with advanced armour and an active protection system is also expected to be fitted with the tank in order to enhance its survivability.<sup>10</sup> Pakistan’s Al-Zarrar Main Battle Tank also possesses the Explosive Reactive Armour and other kinds of protective shields to survive an anti-tank missile strike. On the other hand, both Pakistan and China have been acquiring third generation anti-tank missiles like Green Arrow and the Baktar Shikhan respectively. India must also realise the importance of light weighed anti-tank missile since they would be easier to shoulder launch.

As India now co-develops the Javelin anti-tank missile, it should develop a tank-launched version of the missile too since at present the Indian Army lacks enough effective tank ammunitions.<sup>11</sup> India must make haste with its shoulder launched anti-tank missiles if it really wants the infantry, including mechanised infantry modernisation program to take place at a faster pace.

Needless to mention that the lure of a co-production of anti-tank missiles to suit India’s needs is the only reason why the Javelin has been considered over a lesser

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<sup>8</sup> **Note:** It was reported that during the day time the temperature is very high and there is no difference between the target temperature and the surroundings, thereby making it impossible for the Nag to differentiate between the target and the surrounding. Hence, more sensitive and high resolution seekers are being developed now by the Defence Research and Development Organisation.

<sup>9</sup> “DRDO to conduct Nag missile test trails soon”, *THE TIMES OF INDIA*, July 18, 2013. <[http://articles.timesofindia.indiatimes.com/2013-07-18/india/40656379\\_1\\_user-trials-avinash-chander-namica](http://articles.timesofindia.indiatimes.com/2013-07-18/india/40656379_1_user-trials-avinash-chander-namica)>

<sup>10</sup> Jon Dougherty, “CHINA SET TO FIELD WORLD’S MOST POWERFUL TANK”, *World Net Daily*, May 12, 2003. <<http://www.wnd.com/2003/05/18720/>>

<sup>11</sup> **Note:** At present, India can only boast of the Konkars and the Milan which are second generation missiles are not fire and forget missiles.

expensive Spike anti-tank missile. However, what will remain a concern is whether the critical 'seeker' technologies would be transferred to India by the US in this deal.

*(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)*

