# India's Military Modernization: Implications for Pakistan

Summar Iqbal Babar\*

## **ABSTRACT**

South Asia as a region remains one of the most vulnerable to any potential conflict which can involve the use of weapons of mass destruction. The situation aggravates further when irresponsible measures of weapons build up is undertaken by the states such as India which disturbs the delicate strategic stability of the region. The possibility of large-scale conflict involving use of nuclear weapons remains probable and cannot be ruled out because of the uncertain nature of relationship between the two states. The research method employed in this article is exploratory in nature gauging the cause and effect relationship and subsequent responses which can be catered in deterrence stability. The paper aims to focus on three main areas. First, to analyse as how the Indian Army plans to make itself technologically and materially advanced according to modern needs? Second, to evaluate the strategic environment vis-à-vis the effects of the force/capacity multipliers in Indian Army with respect to Pakistan and the last part discusses some recommendations for Pakistan to overcome this imminent threat. India had allocated over US\$ 52.2 billion for defence purchases for the year 2016-2017 and it is expected to increase in the near future to keep up the pace of modernization and overcome the

Assistant Professor at School of Politics and International Relations, Quaidi-Azam University, Islamabad.

operational gaps in its overall military machine. It has allocated huge funds for the development of its Army, Air Force, Navy, Network Centric Warfare and Electronic Warfare capabilities. The induction of Spy Satellite Risaat-II and UAVs from Israel would keep 24/7 check on the strategic sites. LoC and deployment of Pakistani troops close to the border. India has inked deals with the European firms to induct latest Aircraft for air superiority. Its naval capabilities may undermine Pakistan's long-term maritime interests in the Indian Ocean. The Indian military modernization reveals that it is on course to achieve regional hegemony. Pakistan is not in a position to establish parity with India in the conventional arms realm, which compels the former to increase its reliance on tactical nukes and improve the quality and quantity of its nuclear weapons to achieve credible deterrence against the aggressive manoeuvres of India in South Asia.

#### Introduction

India's military modernization efforts seem to change the strategic balance of the region. This becomes particularly important when various strategic efforts are undertaken in order to influence and challenge the security framework of Pakistan. It, therefore, becomes particularly important for Pakistan to cater for these challenges at the strategic level.

The relation between two nuclear states has seen many ups and downs in the last six decades. Both countries have fought several wars and still issues between them are very complicated. Ranging from Kashmir to terrorism, both countries have failed to overcome these issues. The disputed territory of Kashmir remains the primary source of rivalry between Pakistan and India. Pakistan aims at resolving the Kashmir issue according to the UNSC adopted Resolution 47,1 but India does not heed rather has continued to suppress the voice of freedom.

<sup>1</sup> UNSCR Resolution 47, The India-Pakistan Question, 1948. http://unscr.com/en/resolutions/47

India's coercive policies compelled Pakistan to become a security state. Today India is sitting in Afghanistan and using Afghan soil against Pakistan. In 2011, America's defence secretary Hagel said that "India for some time has always used Afghanistan as a second front and India has over the years financed problems for Pakistan on that side of the border." Pakistan is facing two front war dilemmas because of Indian presence in Afghanistan. India has opened a second front against Pakistan from Afghanistan.<sup>2</sup>

The Indian military's mobilization in 2001-02, after a terrorist attack on its parliament, proved to be ineffective because of the slow mobilization and lack of the element of surprise. This changed the Indian strategic thinking and the Indian Army devised a new strategy to invade the sovereign territory of Pakistan in case of any alleged attack conducted from its soil on India which was established as the Cold Start Doctrine (CSD). The concept of CSD entails aggressive approach towards Pakistan in which Indian military would acquire and conduct an offensive by its troops stationed near the border and save its mobilization time. In 2012, the Indian Air Force introduced its vision in which they emphasized more on subconventional warfare options, which also shows that now it was moving away from fighting a total war and wanted to engage Pakistan in a limited conflict. The Indian Navy's Maritime Strategy - 2015 also puts more focus on irregular threats to Indian national security and they are giving priority to irregular challenges over traditional threats.<sup>3</sup>

To operationalize such an ambitious doctrine against Pakistan, the Indian military planned to revamp its overall war fighting capabilities. In future, it would add latest Main Battle

<sup>2</sup> Robin Hughes, "IAI En Route to Extended Range Barak-8ER," *IHS Jane"s* 360, August 9, 2015, <a href="http://www.janes.com/article/53532/iai-en-route-to-extended-range-barak-8er">http://www.janes.com/article/53532/iai-en-route-to-extended-range-barak-8er</a>

<sup>3</sup> Rajendra Abhyankar, "The Evolution and Future of India-Israel Relations", research paper no. 6 (S. Daniel Abraham Center for International and Regional Studies, Aspen Institute India, The Harold Hartog School of Government and Policy, Tel Aviv University, Tel Aviv, 2012), http://www.tau.ac.il/humanities/abraham/india-israel.pdf

Tanks (MBTs), gunship helicopters, air defence systems, surveillance and reconnaissance aircraft, advanced artillery, weapon locating radars and battle field surveillance radars, night vision capabilities not only in aircraft, helicopters, tanks but also in its infantry soldiers. With all these capabilities the Indian military would be able to operationalize its aggressive doctrines against Pakistan. To overcome its deficiencies, the current ruling political party i.e. the Bharatiya Janata Party (BJP) has launched a 'Make in India' campaign.<sup>4</sup>

## **Indian Military Capabilities**

Previously Indian army emphasized on three strike corps deployed in central India away from international border. Indian military's operational preparedness was exposed in 2001-02 when it decided to deploy 800,000 troops in the aftermath of parliament attack. It took them more than 27 days to bring their military to the border, whereas Pakistan deployed their forces within no time much before than the Indians. This operational weakness in Indian military denied them the element of surprise. To overcome these loopholes, it decided to form a Jaipur headquartered South-Western Command in 2005.

The desire to modernize its armed forces has come at considerable monetary cost for India. The progress it has made over the years in economic sphere makes it a strong contender to become a great power with massive population/man power and military muscle.<sup>5</sup> The Indian military is graded as 3<sup>rd</sup> largest force in the world and the largest in South Asia. Its overall strength is close to 1,346,000,<sup>6</sup> and the army is the biggest organ with 1,150,900 men, the Indian Air Force (IAF) and its Navy are second and third in line at 127,200 and 58,350, respectively. India aims to become a global power to maintain strategic stability with

<sup>4 &</sup>quot;Indian Navy Commandos to Get Israeli Rifles," Zee News.

<sup>5</sup> B. J. C. McKercher, *Routledge Handbook of Diplomacy and Statecraft* (New York: Routledge), 122.

<sup>6 &</sup>quot;The Military Balance: Chapter-Six-Asia," *Routledge*, 115, no. 1 (February 10, 2015), 247. http://dx.doi.org/10.1080/04597222.2015.996361

China and Pakistan. The Indian military strategy and rejuvenation has been focused on Pakistan since 1947 because of the border proximity and many unresolved issues.<sup>7</sup>

This is the motive behind massive funding for transformation in its overall war fighting capabilities. Over the period of time, Indian military not only increased its defence budget but also enhanced its defence spending, as per estimates the weapons related imports has been intensified by 111 percent from 2004 to 2015 which accounted for 15 percent of the global arms purchases. Main suppliers were Russia (75%), USA (12%) and Israel (7%).<sup>8</sup> It is in close defence collaboration with major powers America, Russia, France and Israel to revamp its overall military might.

#### The Refurbishment

The Indian government has also launched several ambitious programmes to refurbish its army and bring them at par with modern forces of the world. To incorporate modern technology in its infantry divisions, it is working on two projects. First, the Battlefield Management System and second, arming the infantry with better offensive and defensive gear. These two projects would help Indian army to overcome its operational weaknesses. Moreover, the T-90-Tank is the backbone of the Indian army. India is in contract with Russia for the supply of T-90 MBTs. Currently Indian army operates 18 regiments of the T-90 Tanks, and it is

<sup>7</sup> Pieter d. Wezeman and Siemon T. Wezeman, "Trends in International Arms Transfers, 2014," SIPRI, (March 2015). <a href="http://books.sipri.org/product\_info?c\_product\_id=495">http://books.sipri.org/product\_info?c\_product\_id=495</a>

<sup>8 &</sup>quot;Programmes at a Glance," *Soldier Modernization,* 16 (Winter/Spring 2015), 32.http://www.soldiermod.com/volume-16/pdfs/articles/programmes-overview-december-2015.pdf

<sup>10 &</sup>quot;Programmes at a Glance," Soldier Modernization.

expected that by 2020 thirty-five regiments of the T-90 MBTs would be operational and mainly deployed against Pakistan.<sup>11</sup>

The Indian army has also inducted modern artillery guns to revamp its firepower against Pakistan at the LoC and international border. The US made M777A2 LW155 ultralight howitzer artillery was added under a deal worth \$737 million. <sup>12</sup> Under the contract, the US firm in collaboration with Mahindra Defence Systems would manufacture 120 howitzers and remaining artillery guns would be transferred by America in three years. <sup>13</sup> This gun has a range of 30km, <sup>14</sup> which may increase the outreach and firepower of the Indian Artillery against Pakistan. India is also manufacturing indigenous artillery guns.

The Dhanush 155mm/ 45 Calibre Artillery System has been developed by the Indian defence industries. <sup>15</sup> The Indian army would induct about 114 guns, and initially it would provide the Indian army with ability to take out targets at 38km range. <sup>16</sup> The Indian military is also working on the Advance Towed Artillery Gun System (ATAGS) with 155 mm/52 Cal features. <sup>17</sup> The ATAGS would be operational by 2019. <sup>18</sup>

<sup>11 &</sup>quot;T-72BU / T-90 (Obiekt 188) Tank" *Global Security org.* March 19, 2017. <a href="http://www.globalsecurity.org/military/world/russia/t-90.htm">http://www.globalsecurity.org/military/world/russia/t-90.htm</a>

<sup>12</sup> Seerat Chabba, "Indian Military Power: 145 Howitzer Artillery Guns to be Delivered by BAE Systems in \$737 Million Deal" February 12, 2016. <a href="http://www.ibtimes.com/indian-military-power-145-howitzer-artillery-guns-be-delivered-bae-systems-737-2453685">http://www.ibtimes.com/indian-military-power-145-howitzer-artillery-guns-be-delivered-bae-systems-737-2453685</a>

<sup>13</sup> Chabba, "Indian Military Power.

<sup>14</sup> Chabba, "Indian Military Power.

Danvir Singh, "Dhanush 155mm Artillery Gun: A "Make in India" Marvel" Indian Defense Review, 30, no. 2 (March, 2016). <a href="http://www.indiandefencereview.com/news/dhanush-155mm-artillery-gun-a-make-in-india-marvel/">http://www.indiandefencereview.com/news/dhanush-155mm-artillery-gun-a-make-in-india-marvel/</a>.

<sup>16</sup> Singh, "Dhanush 155mm Artillery Gun,"

<sup>17</sup> Singh, "Dhanush 155mm Artillery Gun."

<sup>18</sup> Singh, "Dhanush 155mm Artillery Gun,".

#### **The IAF Transformation Process**

The IAF is the fourth largest force in the world with 170,000 personnel. It operates from 60 airbases in India. <sup>19</sup> The current IAF squadrons' strength is close to 33 but to operationalize its aggressive doctrines it must have more than 42 squadrons to control air space and maintain hegemony in the region. <sup>20</sup> India would take another 15 years to get 42 squadrons. <sup>21</sup> The IAF plans to add over 400 aircraft in future to replace aging fleet. <sup>22</sup> The future IAF would be composed of upgraded Russian SU-30 MKI and advanced fifth generation French Rafael aircraft. The induction of these aircraft would help India to overcome deficiencies in its air force, improve coordination with ground forces and add lethal fire power against Pakistan. The SU-30 MKI is an air superiority aircraft. The IAF currently operates more than 200 SU-30 MKI aircrafts and 53 more will be added in next few years. <sup>23</sup>

The SU-30 MKI is equipped with advance features, greater firepower and it has the ability to carry BrahMos cruise missile. This aircraft has a range of about 3,000 km but could be enhanced to 8,000 km with refuelling.<sup>24</sup> The IAF is also in negotiations with their Russian counterparts to upgrade SU-30 aircraft with fifth generation attributes.<sup>25</sup> The induction and upgradation of Russian aircraft would augment its ability to strike deep inside Pakistan and improve its outreach. The Indian government is also in deal with the French counterpart

<sup>19 &</sup>quot;Indian Air Force" *Global Security, March 24, 2017.* <a href="http://www.globalsecurity.org/military/world/india/airforce.htm">http://www.globalsecurity.org/military/world/india/airforce.htm</a>

<sup>20 &</sup>quot;400 More Fighter Jets in Indian Air Force's Vision 2030" Hindustan Times, May 26, 2016. <a href="http://www.hindustantimes.com/nation/400-more-fighter-jets-in-iaf-s-vision-2030/story-VTRviJ0xb4E3EPA6Uzc3HL.html">http://www.hindustantimes.com/nation/400-more-fighter-jets-in-iaf-s-vision-2030/story-VTRviJ0xb4E3EPA6Uzc3HL.html</a>

<sup>21</sup> Air Marshal Anil Chopra, "Indian Air Force: 2025" *Indian Defence Review*, 30, no. 4 (October 29, 2016) <a href="http://www.indiandefencereview.com/news/indian-air-force-2025/">http://www.indiandefencereview.com/news/indian-air-force-2025/</a>

<sup>22</sup> Chopra, "Indian Air Force: 2025,".

<sup>23</sup> Chopra, "Indian Air Force: 2025," 10.

<sup>24 &</sup>quot;Su-30MKI Multirole Fighter Aircraft, India," *Airforce-Technology*. <a href="http://www.airforce-technology.com/projects/su-30mki-multirole-fighter-aircraft-india/">http://www.airforce-technology.com/projects/su-30mki-multirole-fighter-aircraft-india/</a>

<sup>25 &</sup>quot;Su-30MKI Multirole Fighter Aircraft, India,".

for the purchase of 36 Rafale aircraft worth \$8.7 billion. India would get these aircraft in next six years. The Rafael aircraft is also considered to be the air superiority aircraft. It has the ability to carry nuclear or non-nuclear warheads at a range of about 1,850 km.<sup>26</sup> Its purchase and upgradation would uplift the IAF and fill the operational gaps. The IAF would emerge as an impeccable force in the region challenging the conventional balance *vis-à-vis* Pakistan and putting the regional security at risk.

## The Indian Naval Modernization: Hegemony at seas

The Indian government has also poured billions of dollars to revamp its maritime war fighting capabilities. Recently, the incumbent government in India has allotted \$8 billion to refurbish its Navy. Tourrently, the Indian navy possess about 171 naval vessels, 250 aircraft and 16 submarines to guard its maritime interests. The Indian navy has also planned to get 3 aircraft carriers by 2022. India has also acquired nuclear submarine from Russia and in coming years it has planned to get five more such submarines. It would boost India's maritime outreach and firepower against Pakistan. India is also in deal with the French government for the supply of highly sophisticated conventional Scorpion submarines worth \$3.5 billion.

In addition, the Indian navy has also acquired long range surveillance and reconnaissance aircraft P8-I, from the US

<sup>26&</sup>quot; Dassault Rafael Multi-role 4th Generation Fighter" *Military Factory*, March 18, 2017. <a href="http://www.militaryfactory.com/aircraft/detail.asp?aircraft\_id=60">http://www.militaryfactory.com/aircraft/detail.asp?aircraft\_id=60</a>

<sup>27</sup> Pauline Eadie and Wyn Rees, The Evolution of Military Power in the West and Asia: Security Policy in the post-cold war era (New York; Routledge), 173.

<sup>28</sup> Chietigj Bajpaee, "Naval Buildup Reflects India's 'Ambition to Project Power," Deutsche Welle, February 23, 2015. <a href="http://www.dw.com/en/naval-buildup-reflects-indias-ambition-to-project-power/a-18275292">http://www.dw.com/en/naval-buildup-reflects-indias-ambition-to-project-power/a-18275292</a>

<sup>29</sup> Harsh V. Pant, The Rise of the Indian Navy: Internal Vulnerabilities, External Challenges (London: Routledge, 2016), 134.

<sup>30 &</sup>quot;India Investigating French Submarine Company Data Leak" *BBC*, August 24, 2016. http://www.bbc.com/news/business-37171856

under a deal of \$2.1 billion.<sup>31</sup> This aircraft is equipped with modern features which includes Harpoon Block-II missiles, MK-54 lightweight torpedoes, rockets and depth charges.<sup>32</sup> The P8-I has the capability to spot inbound threats at long distance and provide ample time for counter measures. The P8-I can cruise at a speed of about 907 km per hour to carry out operations at 1,200 nautical miles.<sup>33</sup> These acquisitions would augment Indian navy's maritime surveillance and reconnaissance capabilities and seriously challenge Pakistan's maritime interests in the Indian Ocean.

## The Advancement in Transportation and Logistics

The transportation and logistics play vital role in a country's war fighting capabilities. To operationalize its aggressive military doctrine, India must acquire quick, swift and long range transportation and logistics capabilities. This is the reason that it carried out deals with the US to acquire modern transport aircraft to replace aging Russian logistics aircraft. India purchased advanced C-130J Hercules transport aircraft from the American defence companies.<sup>34</sup> It acquired five such aircrafts and six more will be inducted soon.<sup>35</sup> The C-130J Hercules is highly sophisticated aircraft equipped with advance features and ability to operate in harsh weather conditions.<sup>36</sup> It can carry more than 20 thousand kg of logistics

<sup>31 &</sup>quot;Indian Navy's Boeing P-8Is dedicated to the Nation: 7 Facts about Surveillance Aircraft," *Economic Times*, November 13, 2015. <a href="http://economictimes.indiatimes.com/news/defence/indian-navys-boeing-p-8is-dedicated-to-the-nation-7-facts-about-surveillance-aircraft/printarticle/49767751.cms">http://economictimes.indiatimes.com/news/defence/indian-navys-boeing-p-8is-dedicated-to-the-nation-7-facts-about-surveillance-aircraft/printarticle/49767751.cms</a>

<sup>32 &</sup>quot;Indian Navy's Boeing P-8Is dedicated to the Nation,".

<sup>33 &</sup>quot;Indian Navy's Boeing P-8Is dedicated to the Nation,".

<sup>34</sup> Stephen P. Cohen and Sunil Dasgupta, Arming without Aiming: India's Military Modernization (Washington DC: Brookings Institution Press, 2009), 24.

<sup>35 &</sup>quot;India to Get Six C-130J Transport Aircraft in 2017" *Defense World*, March 30, 2016. <a href="http://www.defenseworld.net/news/15709/India\_To\_Get\_Six\_C\_130J\_Transport\_Aircraft\_In\_2017#.WM644miGPIU">http://www.defenseworld.net/news/15709/India\_To\_Get\_Six\_C\_130J\_Transport\_Aircraft\_In\_2017#.WM644miGPIU</a>

<sup>36 &</sup>quot;C-130J Super Hercules," *Lockheed Martin* March 20, 2017. <a href="http://lockheedmartin.com/us/products/c130.html">http://lockheedmartin.com/us/products/c130.html</a>

at speed of 410 mph at 22,000 feet with a maximum range of about 1,956 miles.<sup>37</sup> The acquisition of these logistics aircraft would boost the Indian military's transportation and logistics capabilities and help India to operationalize its doctrines against Pakistan. Another important induction in this regard was the C-17 Globemaster-III, as both states i.e. India and US carried out a deal for the transfer of this highly sophisticated transport aircraft.<sup>38</sup> The deal was worth \$4.1 billion for ten C-17 Globemaster aircraft.<sup>39</sup> This transport and logistics aircraft can carry eighty tons of logistics along with 150 fully packed soldiers.<sup>40</sup> The Indian government has also given a nod for the 15-Chinook heavy lift helicopters worth \$833 million for its These are highly advanced transport and armed forces. logistics helicopters and could be used for many purposes. It could be utilized for rescue operations, special forces missions, quick transportation of weapon, equipment and men during the conflict.41 The Apache would provide cover and lethal fire power to its advancing ground forces. India is in deal with the US for the supply of 22 apache helicopters worth of \$2.5 billion.<sup>42</sup> This helicopter would provide the Indian military

Joakim Kasper, "C–130 Hercules," *Forecast International*, May 26, 2015. <a href="http://www.fi-aeroweb.com/Defense/C-130J-Hercules.html">http://www.fi-aeroweb.com/Defense/C-130J-Hercules.html</a>

<sup>38</sup> Harsh V. Pant, Handbook of Indian Defence Policy: Themes, Structures and Doctrines (New York; Routledge, 2016), 85.

<sup>39 &</sup>quot;India Plans to Acquire Ten C-17 Globemaster III from Boeing" *Airforce-Technology*, March 20, 2017. <a href="http://www.airforce-technology.com/news/newsindia-plans-to-acquire-ten-c-17-globemaster-iii-from-boeing-4759257">http://www.airforce-technology.com/news/newsindia-plans-to-acquire-ten-c-17-globemaster-iii-from-boeing-4759257</a>

<sup>40</sup> Sudhi Ranjan Sen, "Indian Air Force inducts C-17 Globemaster, its Biggest Transport Aircraft" NDTV, September 03, 2013. <a href="http://www.ndtv.com/india-news/indian-air-force-inducts-c-17-globemaster-its-biggest-transport-aircraft-533336">http://www.ndtv.com/india-news/indian-air-force-inducts-c-17-globemaster-its-biggest-transport-aircraft-533336</a>

<sup>41</sup> Shishir Gupta and Rahul Singh, "Defence Ministry Okays Deals worth over \$3bn to buy 15 Chinook, 22 Apache Copters, *Hindustan Times*, May 26, 2015. <a href="http://www.hindustantimes.com/india/defence-ministry-okays-deals-worth-over-3bn-to-buy-15-chinook-22-apache-copters/story-CKEhTvdMKh7ESXuhWAtrBK.html">http://www.hindustantimes.com/india/defence-ministry-okays-deals-worth-over-3bn-to-buy-15-chinook-22-apache-copters/story-CKEhTvdMKh7ESXuhWAtrBK.html</a>

<sup>42 &</sup>quot;Here is Why Apache and Chinook helicopters are Game Changers for India" Economic Times, March 20, 2017. http://economictimes.indiatimes.com/news/defence/here-is-why-apache-an d-chinook-helicopters-are-game-changers-for-india/printarticle/49067786.c ms

with essential firepower and manoeuvrability to operationalize the CSD against Pakistan.

### **Electronic and Network Centric Warfare Capabilities**

military has inducted a Long Reconnaissance and Observation System (LORROS) from Israel in 2003 to keep vigilance on border with Pakistan and check infiltration at the LoC. The LORROS can track its targets in day and night enabling Indian army to keep 24/7 check on the border. This system is equipped with modern technology which enables it to detect targets at a distance of about 13 km to 16 km range. 43 Another major step in the acquisition of network centric warfare capabilities was taken in 2005 during Vajra Shakti exercise in which the Indian military practiced Force Multiplication Command Post (FMCP). The purpose was to integrate flow of information<sup>44</sup> from aircraft, drones, surveillance aircraft and radars to help the field commander to take swift action. After 2005, the Indian military practiced the Network Centric Warfare (NCW) capabilities in almost every military exercise to incorporate modern weapon system in order to overcome operational weaknesses in its overall war fighting machinery. The process to acquire network centric and electronic warfare capabilities is ongoing. To achieve these capabilities Indian Defence Research and Development Organisation (DRDO) has introduced the Battlefield Surveillance Radars (BFSR) to detect enemy's movement at a short range. The BFSR canspot, track, and categorize the objects like sneaking men. a group, combat vehicles and helicopters<sup>45</sup>.

<sup>43</sup> Rahul Singh, "Divya Astra Sets Thar in Flames" *Times of India*, March 2, 2004. <a href="http://timesofindia.indiatimes.com/city/chandigarh/Divya-Astra-sets-Thar-in-flames/articleshow/531918.cms">http://timesofindia.indiatimes.com/city/chandigarh/Divya-Astra-sets-Thar-in-flames/articleshow/531918.cms</a>

<sup>44</sup> Masood-ur-Rehman Khattak, "Indian Military's 'Exercise Sudarshan Shakti' And Cold Start Doctrine – Analysis" *Eurasia Review*, December 23, 2011. <a href="http://www.eurasiareview.com/23122011-indian-military%E2%80%99s-exercise-sudarshan-shakti-and-cold-start-doctrine-analysis/">http://www.eurasiareview.com/23122011-indian-military%E2%80%99s-exercise-sudarshan-shakti-and-cold-start-doctrine-analysis/</a>

<sup>45 &</sup>quot;Battlefield Surveillance Radar" *DRDO*, March 17, 2017. http://www.drdo.gov.in/drdo/English/index.jsp?pg=battlefield.jsp

Another major development towards the NCW and the EW capabilities is the acquisition of Weapon Locating Radar (WLR), which is crucial to identify the range, position and then destroy the enemy's artillery, mortar and short range missile sites. India has deployed four such radars close to the LoC to detect Pakistan's artillery position. This is why India claims that Pakistan has reduced artillery fire. This WLR has a range of about 50 km to mechanically spot the precise location of the adversary's mortar, shells, and short-range rocket sites.<sup>46</sup>

Previously, the Indian military was dependent on other countries for Airborne Early Warning and Control System (AeW&CS) but in 2017, it introduced locally built AeW&CS. This surveillance aircraft has the capacity to detect aerial threats.<sup>47</sup> Indian military is equipped with Israeli made UAVs to keep constant check on Pakistan's deployment and alleged infiltration from Pakistan side of Kashmir.<sup>48</sup>

The Indian military has acquired ten highly advanced Israeli made Heron-TP UAVs under a deal of about \$400 million. The Heron TP is a long range UAV with endurance time up to 45 hours. These UAVs would boost Indian military's recon and targeting capabilities deep inside Pakistan. The Indian military has also acquired radar destroyer Harop missiles from Israel to detect and cripple enemy's radars' capabilities. It has a potent range of about 500 km and could be unleashed from

<sup>46 &</sup>quot;Army Gets Weapon Locating Radar from DRDO" The Economic Time, March 03, 2017. <a href="http://economictimes.indiatimes.com/news/defence/army-gets-weapon-locating-radar-from-drdo/articleshow/57437394.cms">http://economictimes.indiatimes.com/news/defence/army-gets-weapon-locating-radar-from-drdo/articleshow/57437394.cms</a>

<sup>47</sup> Chethan Kumar, "Indian Air Force To Get Made-In-India AWACS Planes To Look Deep Into Pakistan and China," *India Times,* January 05, 2017. <a href="http://www.indiatimes.com/news/india/indian-air-force-to-get-made-in-india-awacs-planes-to-look-deep-into-pakistan-and-china-268889.html">http://www.indiatimes.com/news/india/indian-air-force-to-get-made-in-india-awacs-planes-to-look-deep-into-pakistan-and-china-268889.html</a>

<sup>48</sup> Sanjeev Miglani, "India Turns to Israel for Armed Drones as Pakistan, China Build Fleets," Reuters, September 22, 2015. <a href="http://in.reuters.com/article/2015/09/21/india-israel-drones-idlNKCN0RL2EC20150921">http://in.reuters.com/article/2015/09/21/india-israel-drones-idlNKCN0RL2EC20150921</a> (Accessed on December 22, 2015).

<sup>49</sup> Miglani, "India Turns to Israel for Armed Drones as Pakistan, China Build Fleets.".

<sup>50</sup> George J. Gilboy and Eric Heginbotham, *Behavior: Growing Power and Alarm* (New York; Cambridge University Press, 2012), 171.

multiple launching pads.<sup>51</sup> The Harop missile has a range of about 1,000 km,<sup>52</sup> and can carry weapon of 15 kg.<sup>53</sup>.

## **Hybrid Warfare Strategy**

Indian author Prem Mahadevan in "The Politics of Counterterrorism in India" apparently gave an impression that he was unaware of the Indian state proxy activities. He was of the view that the Indian state should conduct Cold Start type operations within Pakistan. Furthermore, he believed that India should be able to engage in indirect warfare; that is to say through undercover operations.

Cold Start Doctrine caters for India's wartime assault on Pakistan by invading and capturing its territory to bring Pakistan to the negotiating table on its terms has manifestations out of total war as well. What this means is, India over the years has acquired the posture to conduct strikes within the territory of Pakistan. Such policies can be a reference to India's CSD. Other than this, India's alleged involvement in various proxy activities within the Pakistani territory explores another wing of its assault against Pakistan which comes under the rubric of Hybrid Warfare.

In the modern age of fifth generation warfare, India seems to have a technological superiority over Pakistan as well. The domestic construction of anti-Pakistan rhetoric against Pakistan especially in election campaigning seems to be the eminent example of this.

India's espionage/spying activities and propaganda against regional states particularly in case of Pakistan dates back to 1968 when India's premier spy agency RAW (Research and Analysis Wing) came into being tasked to damage Pakistan's interests in the region. In his work "RAW - An Un-obstructive Instrument of India's Foreign Policy," Ashok A Biswas argues

<sup>51</sup> Masood ur Rehman Khattak, "Strategic Significance of Indo-Israel Defence Collaboration: Implications for Pakistan's Security," IPRI Journal, XVI, no.2 (Summer 2016): 61.

<sup>52</sup> Khattak, "Strategic Significance of Indo-Israel Defence Collaboration,".

<sup>53</sup> Khattak, "Strategic Significance of Indo-Israel Defence Collaboration,".

that RAW functions on the premise to keep instabilities alive within Pakistan to give India an edge at regional level.

The nefarious role of R&AW against Pakistan is no secret, as it instigated violence, and supported the separatist movement in erstwhile East Pakistan now Bangladesh. B. Raman in "The Kaoboys of R&AW: Down Memory Lane' argued that the activities of R&AW during the 1971 war were specifically cantered on Pakistan; always trying to malign it.

### Implications for Pakistan

Keeping in view the Indian military might and advancements, it is imperative for Pakistan to critically analyse its enemy's capabilities. It becomes a shallow practice to prepare for the enemy's assault without having known the enemy in and out, it becomes difficult to meet the future challenges. India is working to build up a strong military force in the next decade. Its economic stability allows it to allocate more funds for reformation of its military machine. Its GDP has crossed \$1.53 trillion mark in 2010, with the growth rate for the year 2010-11 standing at 8.5 percent. <sup>54</sup> With such an unwavering economic stability, it will further improve its overall military machine in the next few years.

India is employing more than 2 percent of its Gross Domestic Product on defence compared to the neighbouring states, specifically Pakistan. It plans to spend well over a \$100 billion on the sophistication of it military.<sup>55</sup> Being wary of the fact that its aging fleet of aircrafts do not cater for its strategic needs in the long run, India has asked international companies to send in proposals in order to add more than 100 fighter jets to current fleet of Indian Air Force.

Indian Armed Forces have been working on fifth generation aerial technology. In this regard, it has achieved the status of

<sup>54</sup> Vishnu Som, "India's Most-Advanced Warship to Get the Missiles that were Missing," NDTV, February 6, 2015, <a href="http://www.ndtv.com/india-news/indias-most-advancedwarship-to-get-the-missiles-that-were-missing-737232">http://www.ndtv.com/india-news/indias-most-advancedwarship-to-get-the-missiles-that-were-missing-737232</a>

<sup>55</sup> Israel-Built Ship Commissioned in Indian Navy," *Zee News*, October 9, 2003, <a href="http://zeenews.india.com/news/nation/israelbuilt-ship-commissioned-inindian-navy">http://zeenews.india.com/news/nation/israelbuilt-ship-commissioned-inindian-navy</a> 124984.html

building an indigenous unmanned aerial vehicle Nishant. On the technical side, it comes with a 22 feet wingspan and 11.800 feet ceiling.

Moves such as these won't go unnoticed in a region as delicate as South Asia. This would compel the neighbouring states to indulge in the pursuit of similar kind of sophistication to keep a formidable deterrence.

The existence of any competition between India and Pakistan in the realm of arms race is unnatural and non-conforming to former's economic ability and infrastructural needs. Indian economy supports its arms acquisition and rejuvenation plan. Pakistan with meagre resources has to rely heavily on its indigenous defence sector. Therefore, the comparison of the defence sector of both the countries has become interesting. Pakistan domestically manufactures its tanks and aircrafts whereas the Indian military hardware is mostly foreign made. It is imperative for both countries to avoid arms race in the region and divert resources for the rehabilitation and well-being of the teeming millions living below the poverty line.

India's hegemonic designs in South Asia has driven it to work on an indigenous Radar-Sat which signals that it aims to achieve parity with regional and global competitors in space as well. It is heavily investing in sophisticating its military overall for operational readiness and to establish an unmatchable advantage over Pakistan. It is seeking to develop and enhance its aircrafts as well as its policies to pursue Anti-Satellite Weapons to upgrade surveillance capabilities.

It is therefore important for Pakistan's political leadership to show a clear direction to the armed forces and support them in any crisis situation. To meet these challenges, Pakistan would have to rely and acquire sufficiency in generating a coordinated response; be it in the conventional sphere of war or to achieve operational readiness of its nuclear triad as a deterrent to offset any possible attack from India. This is necessary in the modern warfare.

#### Conclusion

Normalcy in the South Asian region remains elusive given the Indian army's constant provocative measures to disturb the balance of power in the subcontinent. Being much bigger in size and having army double than that of Pakistan, the power symmetry in conventional realm between the arch-rivals remains disparate in favour of India. Ultimately, to cater for its needs, Pakistan would look towards its nuclear arsenal to counter Indian Aggression The ideal course for Pakistan would be to maintain credible conventional deterrence to safeguard its territorial integrity rather than indulging in arms race. It must develop and enhance its indigenous defence industry and improve MBTs, aircraft, light and heavy weaponry, air defence system etc. Moreover, it must carry out regular exercises which would reinforce its operational readiness to counter any misadventure by India under the CSD or low-level infiltratory operations. The Pak-China cooperation should reflect in the defence sector as well. China's support and expertise can help it improve its longrange air defence capabilities and missile accuracy. India aims to establish itself as a regional power on an equal threshold with China and to keep Pakistan under check, and therefore, time and again it indulges in modernization drive. India must show restraint and try to improve its ties with Pakistan. The existent asymmetry in the conventional sphere leaves Pakistan only with one choice to utilize the leverage which is in the nuclear arena. The risk of nuclear war would increase in South Asia. It is necessary for the policy-makers in Pakistan to improve indigenous defence industry and cooperate with friendly countries to maintain conventional balance at par with India.