

# Threat Reduction in South Asia

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Security and stability in South Asia pivot on relations between India and Pakistan. The region was first gripped by tension toward the end of the British rule. During this period, the clash between the Indian subcontinent's Muslims, desirous of a separate homeland, and Hindus who rejected their aspiration sowed the seeds for a bitter rivalry between the two states that has endured since their independence in August 1947. Over the last fifty-five years, India-Pakistan relations have remained severely strained with short, intermittent phases of normal relations. Hostility between the two states is most evident over the Kashmir dispute.

While Kashmir has been on the United Nations' agenda since its emergence as a point of contention, it has failed to draw the member states' concerted attention and remains an obstacle to peace. Consequently, to consolidate its position in Kashmir and attain its strategic objectives along with elevating its stature in the international community, India has been building up its military capabilities. India aspires to play an active and influential role in global affairs and does not want to be treated as a client state by the major powers, especially at a bilateral level.<sup>2</sup> In dealing with its neighbors in South Asia, India desires that its size should be recognized.<sup>3</sup>

The growth of Indian conventional military capabilities has resulted in an asymmetry in the regional conventional military balance. Compounding the danger of this imbalance are the recently acquired nuclear capabilities of India and Pakistan. Thus, India's development and procurement programs have the potential to further destabilize India-Pakistan relations.

This essay discusses the nature and implications of the conventional military imbalance between India and Pakistan that seriously threatens Pakistan's security and suggests measures to minimize this threat. Reduction of the conventional military threat will diminish the chances of escalation up to and across the nuclear threshold, avoiding an outcome with devastating consequences for not only the region but also the entire international community.

## CONVENTIONAL MILITARY IMBALANCE

To understand the scale of the growing conventional military imbalance in South Asia, three major facets of both states' defense forces need to be examined: personnel strength,

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<sup>1</sup> The views expressed in this paper are those of the author and do not necessarily represent the policy viewpoints of the Government of Pakistan, the Pakistan Army or the Strategic Plans Division, the organization where the author is currently working.

<sup>2</sup> Net Assessment Office of the Secretary of Defence, *Indo-US Military Relationship: Expectations and Perceptions*, (October 2002), p. 100.

<sup>3</sup> See I.K. Gujral, "Aspects of India's Foreign Policy," Speech delivered at the Bandaranaike Centre for International Studies in Colombo, Sri Lanka, January 20, 1997, available online at <http://www.stimson.org/Southasia/?sn=sa20020116302>.

weapons systems and force posture. Furthermore, such a comparison must be nuanced by an evaluation not only of existing capabilities, but also of projected procurements and advances in military technologies.

## **Personnel Strength**

The strength of India's active duty troops is 1,100,000 while Pakistan's is 550,000, a ratio of 2:1.<sup>4</sup> India maintains a reserve of 800,000 (300,000 first-line reserves within five years full-time service; 500,000 committed until the age of fifty) while Pakistan has a reserve of 500,000 (committed to age forty-five for other ranks and fifty for officers), a ratio of 1.6:1. These numbers do not include the second line forces of either side: 1,089,700 for India and 294,000 for Pakistan, a ratio of 3.7:1. Thus, the total number of land forces available to India and Pakistan in case of a war is 2,989,700 and 1,344,000 respectively, a ratio of 2.22:1.

The Indian Navy has 53,000 personnel including 5,000 of the Naval Air Arm and 2,000 of the Marine Commando Force. These numbers indicate the sizable nature of the Indian Navy and its further plans to expand and induct new technologies and weapon systems as will be discussed later. In contrast, the Pakistan Navy is a modest force of 25,000 including 1,200 marines and 2,000 Maritime Security Agency personnel. This brings the ratio of the two navies to 2:1.

The Indian Air Force is the world's fourth largest, consisting of 145,000 personnel.<sup>5</sup> The Pakistan Air Force is a smaller tactical air force of 45,000. Thus, the ratio in strength of the two air forces is 3.22:1. The Indian Air Force poses an even greater threat than the numbers suggest because of the advanced capabilities of its combat aircraft and its active induction program.

## **Weapons Systems**

While the strength ratio in terms of military personnel may not seem overwhelmingly in India's favor, the gap is considerably widened by the technological ascendancy of India's weapon systems. A comparison of some of the critical weapons systems is given in the following sections.

Related to land forces, the Indian armor has a clear advantage with a ratio of 1.73:1, approximately half composed of T-72 and T-90 tanks. In contrast, Pakistan's armored formations only have a small component of T-80UD and a few Al-Khalid tanks.<sup>6</sup> In mechanized infantry, India has a considerable upper hand since its mechanized infantry consists of armored infantry fighting vehicles that are more advanced than the armored personnel carriers on which Pakistan's mechanized infantry is based. The Indian army enjoys superiority in artillery with a ratio of around 4:1, better ranges of the 105 mm Indian Field Gun (a 105 mm IFG has a range of 17,200

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<sup>4</sup> See International Institute of Strategic Studies, *The Military Balance for 2002-2003*, pp. 129-34.

<sup>5</sup> See *Aircraft on the IAF Inventory: The Strength*, Internet: <http://indianairforce.nic.in/afstren1.htm>.

<sup>6</sup> *The Military Balance for 2002-2003*, p. 129,133.

meters), and multi-rocket launchers which have ranges from 11,000 – 40,000 meters depending on the type being used.<sup>7</sup>

The Indian Navy possesses “a substantial naval advantage (5:1).”<sup>8</sup> Brigadier (retired) Feroz Hassan Khan has also assessed the current pre-eminence of the Indian Navy over Pakistan’s as 5:1 while General (retired) Mirza Aslam Beg has placed it at 6:1.<sup>9 10</sup>

Like the other two arms of the Indian Armed Forces, the Indian Air Force is far superior to the Pakistan Air Force. The overall size of the Indian Air Force is six times larger than that of Pakistan’s. Pakistan’s front line aircraft, the F-16, would likely be unable to match India’s most advanced combat aircraft, as they are few in number and have been hampered by a lack of spare parts.<sup>11</sup>

## Military Posture

The third element in evaluating the conventional military imbalance is the posture of the three components of the armed forces taking into account their existing conventional capabilities. Having demonstrated India’s military strength and technological prowess vis. a vis. Pakistan, this essay will now discuss the peacetime deployment of the Indian armed forces.

The Indian Army is structured around five regional commands comprising of 12 corps.<sup>12</sup> Out of these 12 corps, nine are either deployed along the Line of Control (LoC) or against Pakistan. These nine corps also include the three strike corps built around armored divisions and the RAPID divisions. The remaining three corps as part of the Eastern Command are deployed at Siliguri (West Bengal), Dimapur (Nagaland) and Tezpur (Assam).

The Indian Navy has three main Commands: Western (headquarters at Bombay), Southern (headquarters at Cochin), and Eastern (headquarters at Vishabhapatnam). Besides these, it also has a Far Eastern Sub Command with headquarters at Port Blair and the Naval Aviation with headquarters at Goa. The locations of the bases suggest that the Indian Navy’s area of concentration is the western coast. The Indian Navy is operationally divided into two fleets:

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<sup>7</sup> See features of 105 mm IFG at <http://www.bharat-rakshak.com/LAND-FORCES/Army/105IFG.html>. 214 mm Pinaka, with a range of up to 40,000 meters and the 122 mm BM-21, with a range of 11,000 – 20,000 meters, see <http://www.bharat-rakshak.com/LAND-FORCES/Army/Pinaka.html> and <http://www.bharat-rakshak.com/LAND-FORCES/Army/BM-21.html>.

<sup>8</sup> Stephen P. Cohen in Richard J. Ellings, Aaron L. Friedberg with Michael Wills (eds.), *Strategic Asia 2002-03: Asian Aftershocks*, (Seattle, Washington: The National Bureau of Asian Research, 2002), p. 287.

<sup>9</sup> My online interview with Brigadier (retired) Feroz Hassan Khan, former Director, Arms Control and Disarmament Directorate, Strategic Plans Division, Pakistan.

<sup>10</sup> “Covering Interests on Kashmir,” *The News*, May 18, 2003, Internet: <http://www.jang.com.pk/thenews/may2003-daily/18-05-2003/oped/o5.htm>.

<sup>11</sup> *The Military Balance for 2002-2003*, pp. 130, 134.

<sup>12</sup> The corps include 3 armored divisions, 4 RAPID divisions, 18 infantry divisions, 9 mountain divisions, 1 artillery division, 15 independent brigades, 4 air defence brigades and 3 engineer brigades. *The Military Balance for 2002-2003*, p. 129.

Western and Eastern.<sup>13</sup> Reports suggest that the Western Fleet has around the same number of vessels as the Eastern Fleet if not more.<sup>14</sup>

The Indian Air Force is organized into five Commands: Northern, Central, Southern, Southwestern, and Eastern. It has around 72 bases across India.<sup>15</sup> The concentration of the bases in the west and northwest under the Central, Western, and Southwestern Command indicates that over two-thirds of the Indian Air Force is positioned near Pakistan.<sup>16</sup> The allocation of air force wings and squadrons to these bases along with the bulk of India's most modern aircraft, the Su-30 MK, Su-30 MKI, Mirage 2000, Jaguar, MiG 29, and MiG 27, point to the strategic advantage these bases provide from an Indian perspective.

Given Pakistan's geophysical vulnerability with the proximity of major cities such as Lahore and lines of communication to the international border, the strength and technological superiority of the Indian armed forces pose a serious threat to Pakistan in the event of a conventional war. Furthermore, India's ability to move forces from the Eastern and Southern Commands to the western front within two weeks time and concentrate all three elements of the armed forces at the point of application against Pakistan further accentuates the conventional military imbalance in India's favor.<sup>17</sup> The mobility of India's armed forces has been facilitated by the recent Sino-Indian rapprochement and desire to resolve the border dispute on the northeastern front. Thus, India is now more capable than ever of mustering sufficient numbers of its conventional military forces near Pakistan for offensive operations, jeopardizing Pakistan's security and integrity.

## ACHIEVING A STRATEGIC BALANCE

Pakistan's bitter memories of its defeat at Indian hands and the lack of American and Chinese assistance in preventing its break-up in the 1971 war, along with India's growing conventional military superiority has forced Pakistan to look for other options to achieve a strategic balance with India.<sup>18</sup> Pakistan launched its nuclear program to establish a deterrent against India and to compensate for India's conventional military advantages.<sup>19</sup>

Although Pakistan was initially reluctant to engage in the field of nuclear development, the Indian "peaceful nuclear explosion" (PNE) in May 1974 prompted Pakistan to actively develop its own nuclear program upon the orders of then-Prime Minister Zulfikar Ali Bhutto. In the following years, the international community placed severe pressure on Pakistan to deter it from acquiring nuclear weapons with the US Congress implementing the Glenn-Symington and

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<sup>13</sup> *The Military Balance for 2002-2003*, p. 129.

<sup>14</sup> See "India Naval Squadrons in the Navy Today" at <http://bharat-rakshak.com/NAVY/Squadrons.html>.

<sup>15</sup> *The Military Balance for 2002-2003*, p. 130.

<sup>16</sup> See "Air Force Wings and FBSUs" at <http://www.bharat-rakshak.com/IAF/Units/wing.html>.

<sup>17</sup> Interview with Feroz Hassan Khan.

<sup>18</sup> Pervaiz Iqbal Cheema, *The Armed Forces of Pakistan* (Karachi: Oxford Printing Press, 2002), p. 169; See Hilali, *Pakistan's Nuclear Deterrence: Political and Strategic Dimensions*, p. 126.

<sup>19</sup> Interview with Lawrence Scheinman of the Monterey Institute of International Studies, Washington DC; See Hilali, *Pakistan's Nuclear Deterrence: Political and Strategic Dimensions*, pp. 136-39.

Pressler amendments. Nonetheless, Pakistan made tremendous advances in its program in a considerably short span of time. By 1987, Pakistan perfected the uranium-enrichment process and was poised to make an atomic device whenever called for by its leaders. During the next ten years, both India and Pakistan continued to officially deny moving toward weaponization.<sup>20</sup>

On May 11<sup>th</sup> and 13<sup>th</sup> 1998, India conducted a series of nuclear tests. Fifteen days later on May 28<sup>th</sup>, Pakistan followed suit. In explaining Pakistan's motive for testing, Anthony H. Cordesman stated:

Pakistan's nuclear and missile programs are part of Islamabad's efforts to preserve its territorial integrity against its principal external threat and rival, India. Pakistan attaches a certain immediacy and intensity to its effort and likely will continue to improve its nuclear and missile forces. Pakistan is driven by its perceived need to counter India's conventional superiority and nuclear capability, remains fearful of India's regional and global power aspirations and continues to seek close security ties with China as a balance. Pakistan's 1998 nuclear weapon tests and its missile tests in 1998 and 1999 likely were seen by Islamabad as a necessary response to India's tests and as a means of bolstering its own deterrent.<sup>21</sup>

In the same vein, an eminent strategic analyst said, "If we [were] to regain our national pride, we had to test. The issue had been brought to a boiling point by India. Now we have redressed the strategic imbalance that India had created."<sup>22</sup>

## Nuclear Deterrence

While Pakistan has not publicly announced a comprehensive nuclear doctrine, two basic elements of the nation's nuclear policy can be gleaned from statements by the country's leaders and high-level government officials: a rejection of the "no first use" policy and the role of nuclear weapons as a minimum credible deterrent. Unlike India, Pakistan has not subscribed to the no first use policy as it cannot afford to keep its nuclear weapons in a recessed or relaxed posture in the event of a conventional military attack. The size and strength of Indian military forces has given rise to a policy of nuclear readiness on Pakistan's part.<sup>23</sup> Hence, Pakistan's rejection of the no first use policy is not so much an affirmation of a first use policy as a means to deter India from launching a conventional war.<sup>24</sup> As President Pervez Musharraf said, "When a war starts, you do not know what direction it will take because there are [a] lot of intangibles which then come in the way. No sane person in normal conditions can ever even contemplate going into a

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<sup>20</sup> Cheema, *The Armed Forces of Pakistan*, pp. 168-70.

<sup>21</sup> See Anthony H. Cordesman, *Weapons of Mass Destruction in South Asia, India and Pakistan: A Quantitative and Arms Control Analysis*, (Centre for Strategic and International Studies, February 2001), p. 14, available online at [www.csis.org/burke/mb/asia\\_sa\\_wmdsouthasia.pdf](http://www.csis.org/burke/mb/asia_sa_wmdsouthasia.pdf)

<sup>22</sup> Cheema, *The Armed Forces of Pakistan*, p. 166; See *India Today International* (June 8, 1998).

<sup>23</sup> Interview with Feroz Hassan Khan.

<sup>24</sup> Michael Quinlan, *How Robust is India-Pakistan Deterrence*, SURVIVAL, IISS Quarterly 42, no. 4 (Winter 2000-01), pp.146-54.

non-conventional war, but basically the best guarantee is to avoid conflict.”<sup>25</sup>

Dr. Rasul Bakhsh Rais observes that, “In meeting [a] security threat from an adversary, with small nuclear forces in hand and [a] big gap in conventional military balance, it suits Pakistan’s interest to maintain its first use option.”<sup>26</sup> And so, during a crisis, given Pakistan’s vulnerability, it seems clear that Pakistan would keep its options open and closely observe the crisis as it escalates.<sup>27</sup>

On May 20, 1999, in his address at the National Defence College, then-Prime Minister Nawaz Sharif used the term “minimum credible deterrence” while speaking about Pakistan’s nuclear stance.<sup>28</sup> Pakistani nuclear declaratory statements are clear that India is regarded as its sole nuclear adversary and thus the focus of its nuclear deterrent. The term “minimum,” however, has not been officially spelled out.<sup>29</sup>

David Albright has estimated India’s inventory of weapons-grade plutonium as 290 kilograms at the end of 1998. The estimate of Pakistan’s inventory of highly-enriched uranium was 550 kilograms as the median value. The nuclear weapon equivalents (NWEs) were estimated at 60 for India and 30 for Pakistan.<sup>30</sup> At the end of 1999, David Albright made another estimate of the fissile material and NWEs for India and Pakistan. India was estimated to have 310 kilogram of weapons-grade plutonium and 65 NWEs. Pakistan was estimated to have 5.5 kilogram of weapons-grade plutonium, 690 kilogram of weapons-grade uranium and 39 NWEs.<sup>31</sup>

The increase over a year in the estimated stockpile of the fissile material and NWEs for India is 20 kilograms of weapons-grade plutonium and 5 NWEs, whereas for Pakistan it is 140 kilograms of weapons-grade uranium, 5.5 kilogram of weapons-grade plutonium and 9 NWEs. Projecting these figures, it can be estimated that by the end of 2002, India had 370 kilograms of weapons-grade material and 80 NWEs while Pakistan had 1,110 kilograms of weapons-grade uranium, 22 kilograms of weapons-grade plutonium, and 66 NWEs. Similarly, a projection can be made for both countries’ stockpiles five years from now in 2008. India would have 530 kilograms of weapons-grade plutonium and 110 NWEs. Pakistan would have 1,950 kilograms of weapons-grade uranium, 55 kilograms of weapons-grade plutonium, and 120 NWEs.

Albright’s projection draws essential parity between India and Pakistan as far as fissile material and NWE stockpiles are concerned. According to estimates by Rodney W. Jones, by the

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<sup>25</sup> “Musharraf Terms Pak-India Military Disparity Dangerous,” *The News*, June 20, 2003, Internet: <http://www.jang.com.pk/thenews/jun2003-daily/20-06-2003/main.main1.htm>.

<sup>26</sup> “Pakistan Nuclear Posture,” *The News*, January 11, 2003, Internet: [www.jang-group.com/thenews/jan2003-daily/11-01-2003/oped/o5.htm](http://www.jang-group.com/thenews/jan2003-daily/11-01-2003/oped/o5.htm).

<sup>27</sup> My interview with Feroz Hassan Khan.

<sup>28</sup> Rodney W. Jones, “Pakistan Nuclear Posture–II: Arms Control Diplomacy,” *Dawn*, September 15, 1999.

<sup>29</sup> See Rodney W. Jones, *Minimum Nuclear Deterrence Posture in South Asia: An Overview*, prepared for the Defense Threat Reduction Agency (DTRA) and Advance System and Concept Office (ASCO), (October 1, 2001), p. 2, available online at <http://www.dtra.mil/about/organization/ab-pubs.html>.

The project was inspired by the need to contribute background analyses for reviewing the US nuclear posture. The aim was to have these analyses available for subsequent use by analysts at DTRA/ASCO and elsewhere.

<sup>30</sup> See “India and Pakistan Fissile Material and Nuclear Weapons Inventory, end of 1998” at <http://www.isis-online.org/publications/southasia/stocks1099.html>

<sup>31</sup> Ibid.

end of 2000, after having discounted the NWEs used in the 1998 nuclear tests by both countries, India had 100 NWEs, an annual increase of 6.8 NWEs, and Pakistan had 38 NWEs, an annual increase of 7 NWEs, a ratio of 2.6:1 in their existing NWEs.<sup>32</sup> Projecting these figures to 2008 suggests 155 NWEs for India and 94 NWEs for Pakistan, a ratio of 1.6:1. On balance, Jones's figures seem more realistic than Albright's.

## CONVENTIONAL CAPABILITY AND NUCLEAR DETERRENCE

According to President Musharraf, "the conventional balance in South Asia is extremely important to maintain peace in the region;" nevertheless, based on India's defence acquisitions and developmental programs coupled with its currently held weapons systems such as laser guided bombs, the existing imbalance of conventional forces in South Asia does not seem to be improving in the near future.<sup>33</sup> Instead, the scales are heavily tipped in India's favor, and it seeks to consolidate a clear pre-emptive strike capability over Pakistan.

In the last few years, the Indian budgetary allocations for defence have risen greatly with a 28 percent increase (Rs. 130 bn) over the previous year in FY 2000-2001,<sup>34</sup> a 13 percent increase to Rs. 620 bn (\$13.3 bn) for FY 2001-2002,<sup>35</sup> a 4.8 percent increase to Rs. 650 bn (\$13.54 bn) for FY 2002-2003,<sup>36</sup> and a 16.6 percent increase over the defence spending of FY 2002-2003 (Rs. 560 bn) to Rs. 653 bn for FY 2003-2004.<sup>37</sup> In addition, India reportedly plans to spend Rs. 4.5t on defence in the next five years.<sup>38</sup>

Over the twelve-year period from 1991-2003, Indian defence spending has almost doubled, jumping from \$7.53 bn in 1991 to \$14 bn in 2003.<sup>39</sup> Such a steep trend highlights India's plans to relentlessly induct advanced weapon systems and technologies in its defence forces.

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<sup>32</sup> Jones, *Minimum Nuclear Deterrence Posture in South Asia: An Overview*, pp. 8-10.

<sup>33</sup> "No-Win Situation Vital to Peace Says Musharraf," *The News*, August 12, 2003. The article covers President Musharraf's inaugural speech at a three-day seminar on "Major Power and South Asia" organized by the Institute of Regional Studies, Islamabad.

<sup>34</sup> "Donors to Watch Indian Defence Budget," *Dawn*, February 8, 2001, Internet: <http://www.dawn.com/2001/02/08/top18.htm>.

<sup>35</sup> "India Increases Spending to Replace Old Weapons," *Jane's Defence Weekly*, March 7, 2001, available online at [http://www.janes.com/defence/news/jdw/jdw010307\\_2\\_n.shtml](http://www.janes.com/defence/news/jdw/jdw010307_2_n.shtml).

<sup>36</sup> See *Jane's Defence Weekly* (March 7, 2002) at [http://www.janes.com/defence/news\\_briefs/jdw020307\\_06.shtml](http://www.janes.com/defence/news_briefs/jdw020307_06.shtml).

<sup>37</sup> See <http://www.vic-info.org/RegionsTop.nsf/0/34aa7aa9d9c679b40a256cdc000720cb?openDocument>.

<sup>38</sup> "India to Spend Rs. 4.5t on Defence in Next Five Years," *Daily Times*, Internet: [http://www.dailytimes.com.pk/default.asp?page=story\\_5-8-2003\\_pg1\\_8](http://www.dailytimes.com.pk/default.asp?page=story_5-8-2003_pg1_8).

<sup>39</sup> See [http://www.jang.com.pk/the\\_news/jun2003-daily/08-06-2003/main/main5.htm](http://www.jang.com.pk/the_news/jun2003-daily/08-06-2003/main/main5.htm), and see "India Gets Two Firefinder Radars From US," *The Times of India*, July 10, 2003, Internet: <http://timesofindia.indiatimes.com/articleshow?msid=69449>.

## Development And Procurement Programs

Following an increase in Indo-US cooperation, India plans to acquire twelve AN/TPQ-37 radars for \$190 million, two of which have already been delivered in July 2003 and the remaining ten will be delivered by 2006.<sup>40</sup> Reports suggest that US companies are interested in collaborating with India in the development of a stratospheric airship that the latter will use to conduct border surveillance and ensure its maritime sovereignty in the region. A prototype is likely to be ready by 2005 or early 2006.<sup>41</sup> Discussions are also ongoing on the sale of P-3 maritime patrol aircraft.<sup>42</sup> In January 2002, India signed a General Security of Military Information Agreement (GSOMIA) with the United States, prohibiting both countries from transferring technical information about each other's military equipment to any third country. This agreement allows India access to dual use US technology items. Soon after the signing of the agreement, the US government cleared the licenses for 20 weapon systems.<sup>43</sup> It also approved the sale to India of other military equipment including 40 GE engines and advance avionics for the Light Combat Aircraft (LCA), submarine rescue kits, ground and electronic fencing equipment and spares for Sea King helicopters. The United States has reportedly offered India additional equipment for electronic warfare and command, control and communication. It has agreed to conduct joint military exercises with all three branches of the Indian armed services, particularly the air force where exercises will include F-16s, F-15s, MiG 29, and Su-30 aircraft.<sup>44</sup>

To diversify its sources of procurement and create alternate military partnerships, India is discussing deals with Israel, France, Russia, and the United Kingdom. Following US approval, Israel will sell India three Phalcon Airborne Early Warning and Control Systems, a system that China was prevented from securing in 2002. India is also interested in acquiring the Arrow anti-ballistic missile system, a purchase that the Pentagon is reportedly inclined to support.<sup>45</sup> India is also reported to purchase from Israel the Barak naval missile system, aerostat programmable radars, and searcher drones/unmanned aerial vehicles (UAVs). India and Israel are also closely cooperating on the Devorah V-2 patrol boats, space research and utilization of each other's assets, upgrades to India's MiG-21s and 29s within the next five years, along with upgrades of its T-72 Tanks and 133 mm Russian cannons to 155 mm howitzers.<sup>46 47</sup> Advanced technologies for missile defense and for early warning and surveillance are of particular concern to Pakistan.

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<sup>41</sup> "Airship Plan: US Firm Looks For Indian Hand," *The Indian Express*, July 18, 2003, Internet: [http://www.indianexpress.com/full\\_story.php?content\\_id=27860](http://www.indianexpress.com/full_story.php?content_id=27860).

<sup>42</sup> See "Joint Statement on US-India Defence Policy Group" at <http://www.defenselink.mil/releases/2003/nr20030808-0331.html>.

<sup>43</sup> "Indo-US Strategic Ties on the Upswing," *Jane's Intelligence Review*, March 1, 2003.

<sup>44</sup> Ibid.

<sup>45</sup> Ibid; "US Confirms Sale of Israeli Phalcon Radar to India," *The Times of India*, August 12, 2003, Internet: <http://timesofindia.indiatimes.com/articleshow?msid=127053>; "Israel Unveils Improved Weapon Export Figures," *Defence News* 18, no. 24 (June 16, 2003), p. 12.

<sup>46</sup> "Tension Bolster Israel-India Cooperation," *The MilliGazette*, July 11, 2003, Internet: <http://www.milligazette.com/Article/15062002/1506200253.htm>; "India-Israel Military Ties Continues to Grow,"



India and France have also concluded significant arms transfers. India has signed an agreement with France for the supply of six Scorpion-class submarines, capable of being nuclear-powered, and missiles. Negotiations are being held for the local production of submarines. India is also holding discussions with France for the licensed production of Mirage-2000-5 jet fighters, the acquisition of thermal imagers for T-72 and T-90 tanks and high-intensity mines.<sup>48</sup> Indo-France collaboration is based on the joint development of weapons systems and sharing of technology and product maintenance.<sup>49</sup>

In addition to concluding major arms deals with the United States, Israel, and France, India continues to receive significant procurement of weapon systems and technologies from Russia, its major supplier of arms for over three decades. Following the necessary refits and upgrades, India will be supplied with the aircraft carrier Gorshkov in the next few years. Russia will lease India two nuclear submarines in the near future and sell it three Krivak class frigates, reportedly incorporating stealth technology. One of these frigates, the INS Talwar, was commissioned into the Indian Navy on August 12, 2003. The Indian Army will gain significantly through the induction of 310 Russian T-90 tanks, 124 of which are being delivered, while the rest will be produced in India. With regards to the Indian Air Force, aside from the 40 Su-30 MKI that have been delivered or will be delivered by the end of 2003, India will carry out the licensed production of 140 Su-30 MKI at the rate of 14 aircraft per year starting in 2004 and ending in 2014. It has also been reported that India is considering the induction of the Russian S-300 air defence system.<sup>50</sup>

Of particular note, India is currently co-producing the Brahmos cruise missiles with Russia, which is to be mated to the Su-30 MKI at a later stage.<sup>51</sup> Though the Brahmos currently falls within the limits laid down by the Missile Technology Control Regime (MTCR) with a claimed range of 280 kilometers, once fired from an aerial platform, it will cross the MTCR's

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Internet: <http://www.jinsa.org/articles/print.html/documentid/1971>; Patricca J. Parmalee, "Israel Pitches Rafael," *Aviation Week & Space Technology* 157, no. 10 (February 9, 2002), p. 13.

<sup>47</sup> "India, Israel Sign Agreements on Space Research," *The Hindu*, August 12, 2003, Internet: <http://www.thehindu.com/2003/08/12/stories/2003081204471200.htm>.

<sup>48</sup> See "India Plans to Increase Purchase of Military Hardware and Technologies," *Pravda*, July 10, 2002, Internet: <http://english.pravda.ru/world/2002/07/10/32166.html>; "Indo-US Strategic Ties on the Upswing," *Jane's Intelligence Review*, March 1, 2003; "France Offers Long Term Military Cooperation," *Indian Express*, <http://www.expressindia.com/fullstory.php?newsid=20938>.

<sup>49</sup> Parmalee, "Israel Pitches Rafael," p. 13.

<sup>50</sup> "India," *MILTECH*, (January, 2003), pp. 280-84; "India Enters Fighter 'Big League'," *MILTECH*, (February 2003), pp. 24-34; "The Indian Air Force Flying Into the 21<sup>st</sup> Century," *MILTECH*, (May 2002), pp. 40-5; "India Upgrading Air Defence," *The Journal of Electronic Defence*, (September 2002), p. 18; "Third INS Talwar Glides into Indian Navy," *The Times of India*, August 12, 2003, Internet: <http://www.timesofindia.indiatimes.com/cms.dll/html/uncomp/articleshow?msid=127363>; "Russian Jet Makers Saw 2002 Profit Boost," *Defence News* 18, no. 24, (June 16, 2002), p. 16; "India Buy of 22 MiGs Moves Forward," *Defence News* 18, no. 24, (June 16, 2002), p. 24.

<sup>51</sup> "India Enters Fighter 'Big League'," *MILTECH*, (February 2003), p. 29.

threshold of 300 kilometers.<sup>52</sup> It is important to note that the aerial variant of the Brahmos cruise missile has been displayed at the 2003 international aerospace show near Moscow.<sup>53</sup>

India has also actively sought arms from the United Kingdom with the British government reportedly agreeing to clear licenses for the sale of 66 Hawks to India, one-third of which will be directly exported to India, with the remaining 44 to be manufactured in India.<sup>54</sup> India is also reportedly interested in purchasing the aircraft carrier HMS Invincible.<sup>55</sup>

India is currently buying six II-78 MK in-flight refueling aircraft from Uzbekistan which will be supplied to India by the end of 2003. Aside from military equipment and technology procurement, India is reportedly seeking partners to undertake a program to develop a reusable space plane, "Avatar." The Avatar would use a combination of turbofan, ramjet, and scramjet engines and would be able to embark on multiple missions. It would be capable of delivering a one-ton payload every time it goes into space. According to one press account, a scaled-down version of this plane would be constructed by India on its own and would be ready by 2006.<sup>56</sup>

As far as Pakistan is concerned, procurement or development of conventional weapons does not figure prominently in its national strategy for the next five years. No projection of budgetary allocations for such programs has been announced while the few known development programs are unlikely to make much headway. The Super Seven, a fighter aircraft that is being jointly developed with China, will probably not be mass-produced in the near future as the first prototype is only likely to have its first flight in August 2003.<sup>57</sup> The production of the Al-Khalid MBT and the upgraded T-69 Al-Zarar for which the orders have been placed with Heavy Industries Taxila may not meet production targets because of financial constraints. The assistance package announced by President George W. Bush at Camp David on June 24, 2003 must still overcome legislative hurdles.

## **Implications for Military Adventurism and Nuclear Postures in South Asia**

The net effect of significant Indian development and procurement programs and minimal Pakistani efforts has drastically altered the military balance in India's favor. As a consequence, New Delhi is likely to be more dismissive of Pakistan's minimum nuclear deterrent. Such an attitude would increase the possibility of military adventurism and rigidify India's approach to resolving the Kashmir issue. The likelihood of future crises over Kashmir would therefore remain high. Consequently, in any future crisis, Pakistan's nuclear posture would continue to

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<sup>52</sup> My Interview with Dennis M. Gormley, Senior Consultant at the Monterey Institute of International Studies, Washington DC.

<sup>53</sup> "Aerial Version of Brahmos on Display at International Aerospace Show," *Indian Express*, August 20, 2003, Internet: <http://www.indiaexpress.com/news/world/20030820-1.html>.

<sup>54</sup> "There's No Defence for Arms Sales," *New Statesman* 16, no. 762, (June 23, 2003), p. 22.

<sup>55</sup> "India Eyes British Carrier," *Defence News* 18, no. 13, (August 18, 2003), p. 10.

<sup>56</sup> "India Eyes New Space plane Concept," *Space Daily*, August 8, 2001, Internet: <http://www.spacedaily.com/news/india-01i.html>.

<sup>57</sup> "China to Help Make up F-16 Deficiency-Kaleem," *The News*, August 15, 2003, Internet: <http://www.jang.com.pk/thenews/index.html>.

rely on the option of first use to maintain deterrent credibility. The first-use posture would be insufficient, however. Due to the growing disparity in both sides' conventional capabilities, the credibility of Pakistan's deterrent would be impaired, as India would have greater capability to destroy Pakistan's nuclear assets before they are launched or engage their targets. Consequently, Pakistan may be forced to re-evaluate the size of its nuclear arsenal.

Furthermore, a growing imbalance in conventional capability is likely to accelerate escalation and impair efforts at escalation control. The escalation ladder in a nuclear crisis as understood in the West would not be applicable in South Asia due to the unpredictable and undefined nature of Pakistan's red lines and the significant conventional imbalance. Thus, while it is imperative to talk of Nuclear Risk Reduction Centers and nuclear escalation control measures in South Asia, it is also necessary for the international community to assist India and Pakistan to reduce conventional military threats that are linked to nuclear deterrence postures.

## **NUCLEAR THREAT AND RISK-REDUCTION IN SOUTH ASIA**

Pakistan has two options in addressing the issue of the military imbalance in the region. The first is to enter into an arms race and use all available resources to increase its conventional military capabilities. This approach, however, is undesirable, as it will lead to an unending arms race. The second option is to employ diplomacy to build confidence between the two states and to take concrete steps to demonstrate non-hostile intent. One model for doing so is the Conventional Forces in Europe (CFE) Treaty negotiated to reduce threatening conventional capabilities at the end of the Cold War.<sup>58</sup> India and Pakistan must move toward such an agreement to downplay the threat of conventional and thus nuclear warfare in the region. The following section lays out three stages for achieving this goal

### **Stage I**

This stage would be short-term. The five steps advocated need not be connected with resolving the Kashmir dispute.

#### ***Agreement To Stop Firing Along The Line of Control (LoC)***

The exchange of small arms and heavy caliber fire has become routine along the Line of Control. This exchange of fire has caused more damage to the civil population than to military personnel against whom the fire is directed. Most of the residents of these areas have become internally displaced refugees and have not received any help from the UN refugee relief program. President Musharraf has already showed his willingness to accept a ceasefire.<sup>59</sup> If an agreement were to be

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<sup>58</sup> The text of the Conventional Forces on Europe Treaty is available online at <http://www.fas.org/nuke/control/cfe/text/>.

<sup>59</sup> "Musharraf Calls for Ceasefire Along LoC," *The Times of India*, August 12, 2003, Internet: <http://timesofindia.indiatimes.com/cms.dll/xml/uncomp/articleshow?msid=127351>.

concluded, it would not take long to implement, simply requiring an order from both sides' army headquarters. As far as monitoring the LoC is concerned, the United Nations Military Observer Group (UNMOG) is already present in Kashmir and could impartially monitor the ceasefire.

### ***Agreement To Demilitarize The Siachen Glacier Area And Revert To Its Pre-1984 Status***

Two Indian divisions and one Pakistani division have been deployed in this area, the highest battle ground in the world, for the past twenty years, confronting not only each other but also extremely inhospitable weather conditions. Both sides have suffered significant losses in terms of men, material, money, and equipment. An understanding was reportedly reached in the late to withdraw these divisions; however, for reasons unknown to the public, the agreement was not finalized. The demilitarization of this area is critical as it will not only end an undeclared limited war between India and Pakistan but also reduce the economic burden both countries have incurred in holding their positions. Officials of both countries' military and Foreign Service Office can once again finalize the details of such an agreement.

### ***Military Manoeuvres***

In order to reduce the threat of conventional offensive strikes against each other, India and Pakistan must clarify the vague language utilized in existing confidence-building measures. Specifically, in the Agreement Between India and Pakistan on the Advanced Notice of Military Exercises, signed on April 6, 1991, a provision such as "Both sides *may not* conduct exercises of Land Forces at Divisional level and above within five kilometers (km) of the areas specified at Paragraph (1).a. (1) and (2)" provides considerable flexibility to both sides in interpreting the agreement and concentrating sufficiently large forces near the international border. The term "may not" should be replaced with "should not." The force level should be reduced to no more than a brigade within 25 kilometers of the international boarder and no more than a division within 50 kilometers of the international border. Thus, the language of the agreements could be improved by being more specific, and the obligations undertaken by both sides might be expanded.

### ***Joint Consultative Group (JCG)***

For the purpose of mutual consultation and inquiries, there exists a hotline between the two Director-Generals, Military Operations; however, in light of post-1998 tensions, the establishment of a JCG would be more beneficial in facilitating close communication between the two sides.

### ***Organization***

The JCG might be headed by an officer of the rank of at least brigadier from each side. A staff of five officers could assist him: one from each of the three services, one from the Ministry of Defense, and a secretary of the group from each side.

### ***Mandate***

The JCGs could meet at least twice a year, preferably after every six months. In addition, meetings could also be convened upon the request of either side. These meetings would provide a forum to resolve misunderstandings related to current arrangements, exchange information about activities that potentially violate the spirit of agreements reached, or address general issues of concern. Such meetings could be hosted alternatively by India and Pakistan.

### ***Monitoring And Inspection Regime***

To lend credibility to the arrangements India and Pakistan agree upon, it is essential that a monitoring regime be established. The regime's mandate might include:

#### ***Attendance of military maneuvers***

Military manoeuvres planned by either side of a large scale, or maneuvers that appear to be larger than notified could be witnessed by the representatives of the other state, perhaps the members of the JCGs, and also by independent and neutral observers from mutually friendly countries at least once a year.

#### ***Patrolling of the Line of Control***

India has voiced concerns about infiltration in Jammu and Kashmir across the LoC. Both the Indian and Pakistan armies have in place a system of patrolling the LoC on their respective sides. To address this issue to the satisfaction of both India and the international community, Pakistan has suggested a system of multilateral monitoring, which has received favorable international comment. Such a system could be established with little difficulty by expanding UNMOG's presence in the area.

#### ***Use of international technical means***

In the absence of national technical means in India and Pakistan to monitor each other's compliance with agreed arrangements, third parties in possession of such technology could potentially collaborate with India and Pakistan.

#### ***Cooperative aerial monitoring***

A great deal has already been written on cooperative aerial monitoring that could be applied subsequently as the level of trust between the two neighbours increases.<sup>60</sup>

## **Stage II**

A long-term stage that can be linked with resolution of the Kashmir dispute.

### ***Agreement Not To Deploy Additional Forces In The Disputed Area***

Such an agreement could help reduce the threat of conventional offensive strikes that seek to alter the status quo in the disputed area. Force reductions could also be contemplated after the demilitarization of the Siachen area.

### ***Military Technologies***

The technological ascendancy of India's armed forces is a major concern of Pakistan. Regional stability would be greatly enhanced if both India and Pakistan could agree to regulate the induction of advanced military technologies into their forces. If no agreement is possible, then such technologies should at least be inducted in a non-threatening manner.

### ***Agreement For Re-Deployment Of Offensive Forces***

India and Pakistan could redeploy their strike formations further away from international borders.

### ***Agreement For Low Military Zones Or No Military Zones***

Both countries could agree to declare certain areas as low or no military zones, keeping in view the strategic and operational sensitivities of each side. These zones could then be mutually or internationally monitored, as discussed above.

## **Stage III**

This stage would be linked with the mutually satisfactory resolution of the Kashmir dispute.

During the third stage, India and Pakistan would seek an agreement on the proportionate reduction of conventional forces. Such an agreement could perhaps evolve into a no war pact, bolstered by enhanced mutual economic interests.

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<sup>60</sup> See John H. Hawes and Teresita Schaffer, "Nuclear Risk Reduction and Cooperative Aerial Observation," in Michael Krepon and Chris Gagne (eds.), *Nuclear Risk Reduction in South Asia*, (New Delhi, India: Vision Books, 2003).

## CONCLUSION

The bitter experiences of the past fifty years have created considerable skepticism and suspicion between India and Pakistan. Peace initiatives are not taken seriously. After a particularly tense period from 1999 to 2002, the time has come for new initiatives to reduce nuclear dangers. Indian Prime Minister Atal Bihari Vajpayee's overtures to Pakistan on April 18, 2003 in Srinagar were favorably received by Pakistani Prime Minister Zafarullah Khan Jamali. While these small steps toward reconciliation are important, they are clearly insufficient and cannot substitute for a serious attempt to address the Kashmir dispute. If positive attempts are not made to resolve this issue to the satisfaction of India, Pakistan, and the people of Kashmir, the present thaw in relations may not last long.

Aside from the indispensable political will required by India and Pakistan to move this process forward, the international community has a critical role to play in bringing peace to the region. It is incumbent on the international community and friends of South Asia to become more actively involved in nuclear risk reduction in the region so that its inhabitants, almost one-fourth of the world's population, can enjoy the benefits of the abundant resources in their nations. Thus far, these resources either remain untapped or have been squandered due to the India-Pakistan conflict. If third parties cannot broker a peace, they can at least facilitate it by acting as neutral umpires to guarantee that the two sides abide by the rules they draw for themselves.