



India vs Pakistan

Comparing the Military Hardware of Both Nations

Briefing Paper
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ABOUT COMMANDELEVEN

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PREFACE

For quite some time, a debate has been going on worldwide that, given Pakistan's conventional military weakness in the face of a sudden Indian offensive under the Cold War doctrine, Pakistan will retaliate by using tactical nuclear weapons(TNWs) early in the conflict. This will be followed by a massive nuclear response by India, resulting in a Mutual Hara-Kiri- a suicide by both the belligerents, since Pakistan has also completed its nuclear triad. What are the ground realities?

Two important developments have taken place in the recent past:

1. After establishing the infrastructure on the ground, completing the peacetime relocation of their field formations along the western border, and raising the launching platforms, Indians have started creating ambiguity about their Cold Start doctrine. They sometimes say that it is not an official military doctrine, while at other times maintaining that it is very much part of their war planning.
2. Indian defence analysts have started raising doubts on its officially declared nuclear doctrine which professes a "No first use" policy. They maintain that this doctrine lacks flexibility and must be reversed to counter the Pakistani nuclear threat.
3. Shivshankar Menon, India's former National Security Adviser, in his book "Choices: Inside the making of Indian foreign policy", reveals that , in response to Pakistan using TNVs in a future conflict, India's massive response will target Pakistan's nuclear arsenal, leaving the adversary with a greatly diminished capability of striking back at India.

India's problem lies with Pakistan's Full Spectrum Deterrence (FSD) doctrine. The major reason for Indian opposition to Pakistan's nuclear programme was to deny the latter the option to counter Indian nuclear blackmail and enable India to slap a Pax Indica on the Sub-continent. Since 1998 when Pakistan became a declared nuclear power, India had been frantically trying to find the gap in Pakistan's defence posture and exploit it with its superior conventional forces.

Such a gap was perceived by the Indians at the tactical level, which, they thought, could be breached through a low intensity, rapid advance into enemy territory with mechanized forces supported by the IAF. Hence the Cold Start doctrine which called for a quick punitive operation through a shallow penetration inside the enemy territory in response to enemy crossing a declared red line, causing destruction to enemy's men and material, followed by a swift withdrawal, thus denying the enemy time and excuse to retaliate.

Apparently, it is a reactive doctrine and not one of pre-emption. However, like the 1971 War, it aims at creating conditions where Pakistan would be channeled into a situation to be used as an excuse for a military action. Pakistan responded to the challenge by developing tactical nuclear weapons (TNWs). This is the reason India has second thoughts about the Cold Start doctrine and feels insecure with its policy of "No first use" of nuclear weapons. It is trying to put pressure on Pakistan through the United States either to abandon the FSD altogether or curtail its nuclear arsenal.

The entire debate revolves around bypassing Pakistan's nuclear deterrence regime and striking it in a region where it is weakest- the conventional asymmetry. Let us investigate this myth. For the purpose of comparison, we will consider only those forces which will play a decisive offensive role in a future war, i.e., armoured and mechanized formations, combat aviation, parachute forces, air forces, and navies.

Table 1: Global Firepower Comparison (2015)

Category	India	Pakistan	Ratio
Global Firepower Ranking (out of 106)	4	17	
Active Personnel	1,325,000	617,000	2.1:1
Active Reserves	2,143,000	515,000	4.1:1
Helicopters	584*	313	1.8:1
Attack Helicopters	20**	48	2.4:1
AFVs	6,704***	2,828	2.3:1
SP Guns	290	465	1.6:1
Towed Artillery	7,414	3,278	2.2:1
MBRLs	292	134	2.1:1

Notes:* **Mostly operated by Indian Air Force**** **Entirely operated by Indian Air Force. Being transferred to Indian Army Aviation Corps. Near parity will exist after new raising/inductions.***** **Includes AFVs organic to RAPIDs and infantry divisions****The ratios slip further against the Indian Army when PLA is also included.**

Let us now have a glance over the comparative strength in mechanized forces

Table 2: Mechanized Forces

Category	India	Pakistan
Armored Divisions	1, 31, 33	1, 6*
Mechanized Divisions	–	25, 26**
RAPIDs	14, 18, 24, 36***	–
Independent Armored Brigades	2, 3, 6, 14, 16, 23	2, 3, 8, 11, 13, + 3 others
Independent Mechanized Brigades	55, 340	31 + 6 others
Combat Aviation	2 Mi-35 Sqdrs****	3 AH1-S Sqdrs*****
SP Guns	290	465
Towed Artillery	7,414	3,278
MBRLs	292	134
Parachute Forces	50*****	SSG
Self Propelled Artillery	17*****x SP/ Towed Arty Regiments	27x SP/ Towed Arty Regiments

Notes:

* Infantry divisions grouped with I & II Corps (17, 37, 14, 40) may have been earmarked for mechanization to achieve mobility compatible with 1 & 6 armored divisions in a Follow in Zone role.

** Corps reserves with V & XXX Corps respectively.

*** More infantry divisions may be converted to RAPIDs

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**** Mi-35 helicopters being phased out. Three combat aviation squadrons being raised under Indian Army Aviation Corps, based on 39 Apaches (2018) & domestic production.

***** Viper helicopters, being inducted, will raise an additional squadron. A near parity will exist after new raisings/inductions.

***** Nucleus around which an air assault division will be raised. Comprises Div HQ and 2x bdes (7x commando bns, 2x indep commando companies, and div troops). Third bde under raising. PAF C-130s and Army Aviation rotary wing aircraft available for air lifting.

***** Number of regiments for each army has been calculated through guess work. See note below.

Note: Exact data on SP artillery not accessible. Number of regiments has been calculated on the basis of 1xSP/towed regt (In Direct Support) for each armd /mech bde. RAPIDs not considered:

India

3x Armd Divs	:	9
6x (I) Armd Bdes:		6
2x (I) Mech Bdes:		<u>2</u>
Total:		17 regiments

Pakistan

2x Armd Divs:	6
2x Mech Divs:	6
8x (I) Armd Bdes:	8
7x (I) Mech Bdes:	<u>7</u>
Total:	27 regiments

Indian and Pakistani armd/mech formations have an amalgam of SP and towed regiments. Indian SP artillery fields 60's vintage Abbott SP gun(105 mm) , 70' s vintage Catapult (Soviet 130 mm gun mounted on a Vijyanta chassis) , and FH-77B155 mm/39 cal Swedish towed gun. The first two categories will be phased out with Dhanush 155 mm towed gun, a version of Swedish FH-77 B, as and when it will be available.

Pakistani armd /mech formations field M110/M110A2, 155 mm tracked howitzers (US origin) and the older M109, 155 mm tracked howitzer (US origin) which has been locally upgraded to M109A2 version. SH1, 155 mm wheeled howitzer (Chinese) has been issued to AJK and Gilgit –Baltistan formations.

At 18x guns per regiment, Indian artillery organic to armoured/ mech formations (17x regiments, less those organic to RAPIDs) absorbs 306 x guns, a figure close to the 290 guns reported by Global Firepower. Similarly, Pakistani SP/towed artillery (27x regiments) organic to armoured/ mech formations should have 486 guns, a figure close to Global Firepower's estimate of 465 guns. We have not included RAPIDs because otherwise we cannot explain the disparity in the number of SP guns as reported by Global Firepower.

Table 4: Summary

Category	Armored	Mechanized	RAPIDs	Ind. Armed Batt	Ind. Mech Brigade	CTB Aviation Sqnr	Para Brig
India	3	-	4	6	2	2	1
Pakistan	2	2	-	8	7	2	2

Summary

Except for the active army reserves, India nowhere enjoys a 3:1 superiority. Its superiority in critical forces is thus not enough for forcing a decision on the enemy. Indian superiority in armoured divisions and RAPIDs has been matched by the combined combat power of Pakistan’s 2x armoured divisions and 2x mechanized divisions. Pakistan Army also has more independent armoured and mechanized brigades, SP artillery, attack helicopters, and parachute forces. We also have to take into account Indian deployment against China. Do we really think that the Indian Army is capable of “slicing” Pakistan? It rather implies that the Pakistan Army can defeat an Indian armoured onslaught without the use of TNWs.

However, Pakistan will still keep the tactical nuclear option open for three reasons:

1. To keep Indian political and military decision makers guessing.
2. Pakistan considers India’s declared nuclear doctrine a hoax aimed at hoodwinking the world at large and portraying India as a peaceful country threatened by its belligerent neighbor. Notwithstanding India’s “no first use” declaration, Pakistan believes India will launch a pre-emptive nuclear attack against Pakistan whenever it finds it feasible.
3. India already possesses nuclear weapons based on Brahmos cruise missile. So why the hullabaloo over Pakistan’s TNWs.

Pakistan had already defanged the Cold Start doctrine by deciding to mechanize its corps reserves. Pakistan produces its own tanks and APCs but is still planning to import additional tanks from China, Ukraine, Russia, or Turkey. It has already received second- hand APCs from Italy. This is indicative of an extensive Pakistani drive towards further mechanization of forces.

Air Power

IAF will be down to 32 squadrons by the end of 2015. Breakdown of the 32 squadrons is as follows:

Table 5: Indian Army Breakdown (2015)

Category	India	Pakistan	Ratio
MiG-21/MiG-27	11	17	11
Suhhoi 30-MKI	10	617,000	10
Jaguar	6 times	515,000	4.1:1
MiG-29	3		1.8:1
Mirage 2000	20**	48	2.4:1
AFVs	6,704***	2,828	2.3:1
SP Guns	290	465	1.6:1
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With 576 fighter jets, it will be well short of the 750-strong fighter jet fleet mandated by a government sanction to wage a simultaneous two-front war with Pakistan and China. IAF accuses HAL for the slow rate of the overhaul of existing aircraft and production of new ones. The project is three years behind schedule. Out of a total of 272 of these aircraft to be delivered to IAF by 2020, HAL still has to deliver 70 (Banerjee, 2015).

Table 6: Indian Army Breakdown (2015)

Category	India
MiG-21/MiG-27	11
Suhhoi 30-MKI	10
Jaguar	6 times
MiG-29	3
Mirage 2000	20**

Note: The ratios slip further against IAF when PLAAF is also taken into account.

Table 5: Global Airpower Summary - Fire

Category	India	Pakistan	Ratio
Major Ports	629	387	1.6:1 India
Fleet Strength	263	170	1.5:1 India
Transport Aircraft	667	278	2.3:1 India
Serviceable Airports	346	151	2.1 India

Table 6: Global Power Relationship - Security

Category	India	Pakistan	Ratio
Major Ports	7	2	
Fleet Strength	202	74	
Transport	2	0	
Submarine Hotel	15	8	
Frigatte	15**	10	
Destroyers	9	0	
Corvettes	25	0	
Mine Warfare Craft	7	3	
Patrol Kit	1	1000	

Note: The avowed area of operations of IN stretches from the Straits of Hormuz to the Straits of Mallaca. It also has ambitions to maintain naval presence in South China Sea. PN has to defend its shoreline and SLOCs only.

Indian Navy and MoD, while planning for the construction of surface ships, did not place orders for the purchase or local production of long/medium range surface to air missiles and Advance Towed Array Sonars. Lack of these renders the Indian ships vulnerable to PN's sea skimming anti-ship missiles fired from aircraft and submarines. Likewise, they had failed to place orders for the purchase of torpedoes for their French origin Scorpene submarines (Mizokami,2013). These systems are not available off the shelf and require a rather longtime line between placing of orders and development/ supply by the manufacturer. All Indian surface combatants are without Long Range Surface to Air Missiles (LRSAMs) (Raghuvanshi, 2013). The joint Indo-Israeli Barak 8 LRSAM is still undergoing trials.

Barak 8 made its first test flight in the Mediterranean during the last week of November 2015. Its solid fuel propulsion motors have been developed by India's DRDO whereas Israel has provided the guidance system and sensors (70% of the project). Israelis claim that the missile can protect warships from anti-ship missiles launched from submarines, ships, or aircraft up to 150 kilometers away. This claim is not supported by the system's performance during the test flight. During the test, Barak 8 system had to detect and intercept a target drone flying at a speed of 500- 550 kph. This was slower than the anti-ship missiles in Pakistan Navy's inventory – the Harpoon anti-ship missile has a speed of approximately 865 kph whereas the Exocet missile travels at 1,150 kph. Reportedly, the on-board radar of the Israeli corvette, on which Barak 8 system was mounted, acquired the target at a range of more than 20 kilometers, but less than 120 kilometers – a rather large interval which keeps the evaluators guessing. The design parameters of the Barak 8 require a detection range of 70 kilometers. Israelis and Indians will need more time to bring this missile up to the required parameters.

At the beginning of 2014, the Indian Navy was worried about how to bring INS Vikramaditya, the aircraft carrier it had purchased from Russia, safely home. The reason- Vikramaditya, along with almost 25 of India's most advanced destroyers, frigates, and corvettes, lacks an Advanced Towed Array Sonar (ATAS) (Shukla, 2014). Without this crucial sensor, Pakistani submarines can target Indian warships with torpedoes from 50-80 kilometers away. The Indians had passed on their apprehensions to the United States which, in turn, had told the Pakistanis not to interfere with the Indian armada escorting Vikramaditya during the last leg of its journey. The Pakistan Navy complied. But, it did what it had been doing all along the years- collecting the acoustic signals and recording

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all the voice signatures of the Indian surface combatants and their crews. Most likely, the Pakistani submarines escorted the Indian ships all the way home.

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