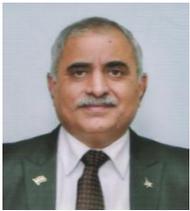




Op Sindoor's Enduring Takeaway (The Ten Commandments)



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Introduction

Operation Sindoor, the Tri-Services joint operation, was launched in the early morning hours of May 07, 2025, in response to the dastardly, heinous and religiously provocative terrorist attack on innocent Indian civilians at Pahalgam on April 22, 2025. Op Sindoor was a stupendous success and achieved its laid-down military objectives in less than four days. While the success of Op Sindoor should be celebrated for its decisiveness, highly professional and integrated execution, the Indian Armed Forces also need to do a comprehensive, honest, and unbiased analysis of the entire operation to draw the correct lessons and prepare for future more challenging battles. During Op Sindoor, a disturbing facet was noticed; there was significant military collaboration between Pakistan and its all-weather friend China. Turkey also provided military support to Pakistan not only in the run-up to Op Sindoor but even during the conflict. India needs to be cognisant of the increasingly collaborative approach of China and Pakistan and the possibility of a full-fledged two-front war. A few enduring takeaways from Op Sindoor are highlighted in the succeeding paragraphs

Defence Budget Enhancement

The defence budget of India for financial year (FY) 25 is approx. USD 79 billion (**fourth largest in the world**), which is slightly less than 2% of our GDP. However, it is significantly smaller than the defence budget of our Northern adversary (China) for FY 25, which is USD 245 billion. ¹ It needs to be enhanced to approximately 2.5% of GDP as there are several critical capability gaps in the

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technological upgradation and modernisation of our Armed Forces. This enhanced commitment of funds for external security is absolutely essential for expeditiously developing our military capabilities and capacities to deter our adversaries to our West and North. We need to develop disruptive or asymmetric capabilities for credible deterrence. '**Deterrence is costly, but wars are even costlier**' is a well-known military adage. Presently, India cannot afford to get embroiled in an unnecessary conflict that diverts our focus from our nation's economic growth. India needs to ensure that national security is embedded into the edifice of financial security, implying that economic growth cannot be achieved in an unstable geopolitical environment. India has to achieve its goal of becoming a high-income nation before we become old. We need to wisely utilise our demographic dividend to accelerate our technological, economic and military development and achieve our goal of becoming '**Viksit Bharat**' by 2047.

Joint and Integrated Operations

Whenever the three Services have planned their operations jointly and executed their plans in an integrated and synergistic manner, they have achieved sensational victories. The only previous example of synergistically executed operations by the Indian Armed Forces has been the 1971 war. One of the most heart-warming features of Op Sindoor was the precise articulation of the national and military objectives and complete synergy was achieved not only amongst the three Services but the Civil-Military fusion as well. Op Sindoor was a **jointly planned and synergistically executed operation, wherein the core strengths of the three Services were individually applied towards attaining the common overall military objective**. Another feature of Op Sindoor that needs to be stressed is that the overall integrated plans were made under the aegis of the CDS while the individual Service plans were executed under the skilful and professional tutelage of the three Service chiefs. The strengths of this highly successful joint and integrated operations should be thoroughly analysed while finalising and implementing the impending Integrated Theatre Commands. Op Sindoor's success was also attributable to the '**whole of nation**' approach - wherein all the diplomatic, informational, military and economic (DIME) measures were synergised to achieve the stated military objective of dismantling the Pakistan military-supported and sponsored terrorist infrastructure and establishing credible deterrence for the future. Any terrorism-related misadventure by Pakistan in the future would incite an even stronger response from India (costs would be higher for Pakistan) is the point that has been made amply clear to Pakistan.

Primacy of Air Power

Op Sindoor's success has once again very empathetically reiterated the **undisputed primacy of air power**, which implies that a nation needs to succeed in the air operations to win the war. The same is however not true for land or naval operations. During any conventional or even sub-conventional contingencies, air power is always the fastest to respond and can hit the enemy's Centres of Gravity simultaneously. In Op Sindoor, air power was used by India in an offensive, unrestrained, precise and calibrated manner for the first time after the 1971 war, and it produced exceptional results wherein the shock and awe of the sustained IAF air strikes forced Pakistan to ask for a ceasefire in slightly less than four days. Op Sindoor is the shortest military operation executed either by India or any other country, wherein the laid-down military objectives were achieved, and operations ceased within a total of 90 hours. The Balakot air strike in the aftermath of the Pulwama incident was the first time that India offensively used air power in pursuit of the national interests in a sub-conventional contingency. In Op Sindoor, the use of air power in a sub-conventional contingency was taken to the next level with the simultaneous air strikes on nine terrorist training camps/infrastructure in Pakistan and Pakistan occupied Kashmir (PoK). Op Sindoor emphatically demonstrated that calibrated, deliberate and focused **use of air power in sub-conventional contingency is non-escalatory. Air power can be utilised offensively in both conventional and sub-conventional operations, even under the nuclear overhang.** Op Sindoor also unequivocally emphasised **air power's ability to produce strategic effects using long-range precision weapons with minimum collateral damage without crossing the international borders (IB) and remaining within the bounds of escalatory control.**

Equipping IAF Appropriately

Op Sindoor demonstrated the precision, lethality and coercive impact of IAF offensive air strikes. The offensive air strikes had a profoundly demoralising effect on Pakistan's national morale and war-waging capability. It forced the Pakistanis to throw in the towel and ask for a ceasefire. The IAF is presently grappling with an acute shortage of fighter aircraft due to the **repeated extended timelines in the indigenous fighter aircraft development programme** and the **time-consuming, cumbersome and inefficient defence acquisition procedures** (with the delays in procurement of 114 x MRFA aircraft). IAF is also facing a crippling shortage of force multipliers (AWACS and AARs)

for supporting offensive air operations. IAF's fighter squadron strength has dropped to a precarious level (31 Squadrons), the lowest level in the past five decades.² These shortages of fighters and force multipliers need to be addressed on a war footing, which has also been recommended by the high-powered defence committee led by Defence Secretary in March 2025.³ **There is an urgent need to build up IAF capabilities expeditiously so as to bridge the large capability gaps with our Northern adversary and also be able to cater for a two-front conflict.**

Offensive Air Power - Fighter or UAV Dilemma?

The self-defence capabilities of the modern-day manned fighters combined with the precision, lethality and load-carrying capability; better Situational Awareness and decision-making ability in complex situations mandates that manned fighters would remain the primary aerial offensive platforms in the foreseeable future. In spite of the rapidly increasing capabilities and ranges of Unmanned Aerial Vehicles (FPV drones, loitering munitions, swarm drones and UCAVs), UAVs still have problems of survivability in contested air spaces and are capable of carrying out only limited damage to the adversarial weapon systems. **UAVs would increasingly take on a lot of roles of manned aircraft but aerial offence would continue to be predominantly the preserve of manned fighters.** UAVs would complement manned fighters in offensive aerial operations rather than replace them in the foreseeable future.

Space Based Capability (ISR, PNT & Communication) Enhancement

The limited number of Indian electro-optical and radar imaging, communications, and Positioning, Navigation and Timing (PNT) satellites performed creditably and provided accurate targeting data and other support services for the air operations during Op Sindoor. However, we were forced to utilise commercial imagery data (Maxar, etc.) to beef up the layered targeting imagery provided by our domestic satellites or for Battle Damage Assessment (BDA). India needs to accelerate the proposed timelines for the launches of our Space-based Surveillance network (SBS-3) satellites to shorten the revisit times to approximately 2 hours (Chinese ISR satellites presently have a revisit time of approximately 30 mts). India also needs to replace the old life-expired NavIC satellites with new satellites expeditiously, strengthen the ground segment and upgrade the NavIC services to NavIC 2.0.

Focus on Defence R&D and Induction of State-of-the-art Technologies

The mil-technological edge of India vis-a-vis Pakistan that was amply visible during Op Sindoor needs to be further enhanced while making all endeavours to narrow down the mil-technological edge that China presently enjoys with regard to India. This needs to be achieved through a dedicated focus on the development of cutting-edge technologies like high-power jet engines, hypersonics, long-range precision weapons and Artificial Intelligence and their rapid induction into the Services. A holistic approach towards technology development must be fostered wherein failure must be accepted as a stepping stone to success. The MoD's defence R&D budget needs to be enhanced significantly, and guidance and hand-holding must be provided to the private defence industry and start-ups. MoD must encourage and foster collaboration amongst the DPSUs, the private defence industry, the start-ups and the academia.

Strengthen Atmanirbharta

Op Sindoor demonstrated the stupendous success of India's Atmanirbharta initiatives. The sterling performance and contribution of the indigenous weapon systems and weapon platforms to the success of the operations was indeed commendable and needs to be sustained. Though the gestation period for indigenous development of weapon systems is always much longer, the services must continue to encourage and support the indigenisation process. All the players - the DPSUs, the three services, the private industry, the start-ups and the academia need to be fully involved and supportive of the indigenisation process. The Atmanirbharta initiative needs to be further strengthened with a **'whole-of-nation' approach and be made more broad-based**. The indigenous development programs of Tejas Mk1A, Tejas Mk II, AMCA, the 110 kN high-performance jet engine, long-range precision weapons, larger range BVR AAMs (Astra- II, III), Ghatak UCAV, swarm drones, larger range DEW C-UAS systems and the CATS air warrior program need to be focused upon and speeded up.

Combined Joint All Domain Command and Control (CJADCC)

The IACCS and Akashteer were a huge success, the backbone of the Integrated Air Defence network centrality, and they were crucial enablers for air defence operations during Op Sindoor. The IACCS and Akashteer Integrated Air Defence System endowed its numerous users with an unmatched Situational Awareness that significantly reduced the OODA (Observe, Orient, Decide and Act) loop, the Sensor-to Shooter time-lag and ensured the protection of the Indian air space. India must further enhance this network by integrating the naval sensors and their C&C network

(Trigun) with IACCS. Simultaneously, India needs to start working on upgrading the integrated Tri-Service C&C network to the **Combined Joint All Domain Command and Control (CJADCC)**, which would be capable of coordinating and controlling all the sensors and shooters in multiple domains (all five domains) - Air, Land, Sea, Space and Cyberspace.

Information Warfare/Cognitive Warfare

Information/Cognitive Warfare has become increasingly critical in shaping the strategic narrative as the perception battle is being intensely monitored and commented upon by the international media. The briefings done by the DGMOs of the three services were comprehensive and done professionally. They were very well received not only by the national but also by the international media. They helped in shaping the strategic narrative. In all future operations, this system of briefings by the DGMOs of the three services should be followed, with interim briefings by the Ministry of External Affairs (MEA) and MoD representatives.

Conclusion

India needs to prepare for the future and expeditiously build up the capabilities of our Armed Forces as future battles/wars would be appreciably more intense, more widespread (probably two-front) and multi-domain (encompassing Land, Sea, Air, Space, Cyberspace and the Cognitive domains.) **Future wars would have a greater infusion of technology and artificial intelligence and would be increasingly fought in the digital and shadowy grey zones of cyberspace, space and cognitive domains.** It would need an integrated 'Whole-of-Nation' approach with even greater Civilian Military Fusion for ensuring success.

(Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the position of the Centre for Air Power Studies [CAPS])

Notes:

¹ “India vs China: Defence Gap Widens as Beijing’s \$245 billion Military Budget Nears Half of India’s National Outlay,” *The Economic Times*, March 06, 2025, <https://economictimes.indiatimes.com/news/defence/india-vs-china-defence-gap-widens-as-beijings-245-billion-military-budget-nears-half-of-indias-national-outlay/articleshow/118752902.cms>. Accessed on May 23, 2025.

² “As Fighter Strength Dips Below 1965 level, Air Chief Vows to Fight with ‘whatever we have,’” *The Economic Times*, October 04, 2024, <https://economictimes.indiatimes.com/news/defence/as-fighter-strength-dips-below-1965-level-air-chief-vows-to-fight-with-whatever-we-have/articleshow/113992521.cms>. Accessed on May 23, 2025.

³ Press Information Bureau, India, “Defence Secretary Presents Report of the Empowered Committee to Raksha Mantra for Capability Enhancement of IAF,” March 03, 2025, <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2107847>. Accessed on May 21, 2025.

