

Medals and Ribbons

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A SALUTE TO OUR VALIANT WARRIORS

IRAN ISRAEL

A Saga of
Conflict
and
Elusive Peace

Beyond the Rivers

Reviewing the Indus Waters Treaty



India's Human Space Flight Odyssey

Role of the Indian Air Force



Grief to Glory

War Widows Turn Loss Into Legacy



A LEGEND FLIES INTO THE SUNSET



On 26th September 2025, the legendary MiG 21 aircraft of the Indian Air Force (IAF) took to the skies one last time. The first supersonic aircraft to be inducted into the IAF, the MiG 21 was deployed operationally almost immediately, in the 1965 Indo-Pak war, though in limited numbers and with limited operational capabilities. Since then, the MiG 21 participated in taking on every operational challenge that faced the country, including the recent **Operation Sindoor**, performing excellently. A multi-role combat aircraft from long before the term was coined, the MiG 21 was equally capable in air defence, ground attack, photo reconnaissance, and even in the training role. From the **“missiles only”** philosophy of early variants, the aircraft constantly upgraded and evolved into the very capable Bison variant, to remain a potent weapon platform, proving its worth in the David vs Goliath showdown with the superior F-16 in the post-Balakot aerial encounter.

For years, the MiG 21 fleet was the backbone of the IAF, operating a fleet of nearly 900 aircraft over its six decades of yeoman service to the nation. At the time of its curtain call, the IAF had a residual inventory of about 36 aircraft.

The IAF bade farewell to the legend in a poignant ceremony at Chandigarh, attended by legions of her admirers who have flown her and maintained her.

Farewell friend! You will always be remembered with reverence and fondness.



Col David Devasahayam



2025 is witnessing a churn taking place in the geopolitical arena. Global power dynamics are seeing an upsurge in violent conflicts, and the widespread availability of drones and smart munitions is changing the battlefield landscape. We too decided to look more closely at current events affecting the security environment and are hence transitioning to contemporary issues in our magazine. The feedback from readers also indicated that they wish to grasp short and concise narratives on the global, regional and military events.

In this issue, we picked up some of the important developments this year – The Israel Iran Conflict, Pakistan's Information (or Misinformation) Strategy, The Indus Waters Treaty Suspension, Rising Fundamentalism in Bangladesh, Ukraine's impressive execution of Operation Spider's Web, Loiter Munitions and Kamikaze Drones and Sudhanshu Shukla's Flight into Space to name a few. I am sure these insights will be educative and interesting.

We have also looked at human interest stories, deciding to focus on the heroic *Veer Naris* stories in a few articles. We are really proud to learn that 40 such *Veer Naris* have been commissioned as Army officers from the Officers Training Academy, Chennai

in the last two to three decades. **Noble empowerment indeed and probably unique in the world !**

Welfare of troops is a crucial motivational factor in the Armed Forces, and the Indian Government and the Armed Forces have several schemes addressing the welfare needs of the NOK of deceased servicemen. However, an awareness deficit was noticed amongst widows and wards of soldiers who had died in service, and some entitled benefits remained unutilised and unclaimed.

After discussions with my friend and colleague, Lieutenant General D Anbu, former Vice Chief of Army Staff and former Northern Army Commander, who kindly consented to be the Chief Mentor, we decided to launch a project to bridge this gap. We also realised that the widows of Battle Casualties were relatively better off, as the organisation kept track of them; but widows of other servicemen who died in harness (physical casualties) were in greater need of attention. After a pilot project in Tamil Nadu, **Project Radiant Sambandh** was launched in June 2022, incorporating team members working for Radiant Cash Management Services (RCMS) and taking advantage of the RCMS national network present in over 14,000 Pin Codes. Help Desks supervised by veterans were set up at Chennai, Delhi, Lucknow and Guwahati. An MOU was also signed with the Adjutant General's Branch, Army HQ which acknowledged this valuable service being rendered.

Radiant Sambandh contacts over 6000 entitled widows and wards of physical casualties, checks if they have received entitled dues, assists and guides them in receiving the due entitlements. I am glad that we have made a difference and enabled many beneficiaries to receive education and other applicable grants. An article in this issue throws light on this project.

To conclude, this issue is not based on a single theme but brings forth a bouquet of varied articles on contemporary events, anecdotes and stories of valour, grit and glory. These diverse stories of different hues give a good insight into life in the Armed Forces and the security dimensions presently facing our nation. I am sure the readers will gain a better perspective on **matters military** and will endorse this change in **Medals & Ribbons.** ■ ■ ■

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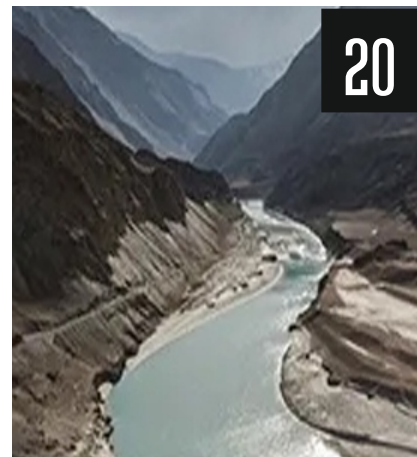
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A SALUTE TO OUR VALIANT WARRIORS (ENGLISH QUARTERLY)

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Lt Gen J S Sandhu, (Retd).

When the United Nations came into being, it was hoped that there would be a check on conflicts between States, a conflict resolution process would be in place. But war, conflicts, confrontation are a historic reality, since ancient times. Clashes will continue, because ideologies differ, disputes remain unresolved, changes in power equations are resisted, the fight for resources does not end, besides many other causes of conflict. So, nations have to remain prepared for war, and peace remains elusive.

But the methods of warfare, warfighting and confrontation are changing. Technology is the game changer, resulting in enhanced situational awareness on the battle front, intelligence inputs about adversary's combat power, leaders and equipment is far better, precision targeting over hundreds of kms is feasible, Artificial Intelligence tools and robotics are adding complexity to operations, and unmanned systems and drones have upped the ante in the air domain. These facets have been

observed in the overt, covert and hybrid campaigns in West Asia, in Ukraine and Russia, and in our subcontinent too. We have scanned some of these events and developments in the articles in this issue.

On a different humane note, a '*family*' ethos prevails in most Armed Forces units, and the Indian Armed Forces are like a '*mega-family*'. Taking care of the family members, the *men and women in uniform* is a natural outcome. The families of servicemen become a part of the extended Indian Armed Forces family. The bonds and connect between the officers, the men and the families are a strong pillar of support during crisis and personal grief moments faced by family members. When a soldier, sailor or air warrior dies in operations, in battle or while in service, the Government and the Armed Forces provide pension, insurance and other financial benefits, besides moral and emotional support from the unit and team members. In this issue, we hence decided to look at the '*Veer Naris*', widows and wards and the support system for them.

Is this welfare support system perfect, is it without blemish? Considering the large number of entitled beneficiaries, the vast areas and infrastructure weaknesses in remote areas, and existing social, educational and informational weaknesses, slippages in delivery are understandable. A welcome sign is that the young urbanised families of recent years are better educated, more aware and more capable. But even today there are many families hailing from under developed, rural areas, with orthodox norms prevailing. *Hand holding* is required for such families and the older widows too.

Also, the Government and Armed Forces support system is at best a '*secondary*' support. The widows and wards are primarily dependent on their families and

friends. A good, helpful, empathetic family environment assists the widow in surmounting the grief; whereas, she would face turmoil and harshness if there is greed, friction and clashes in the home environment of the widow. And, I must confess that at times, the widows too have weaknesses of character and commitment, which results in bitterness and confrontation. Nevertheless, the Armed Forces as an organisation have provided effective welfare assistance.

A glimpse of other articles. In end June, Group Captain Shubhanshu Shukla, our second astronaut, flew into space and stayed at the International Space Station. The role of the Indian Air Force in India's Human Space Flight programme is elucidated in this issue. Recognising the grit, resilience and valour of our men and women in uniform, we bring out the stories of Navika Sagar Parikrama II (DilRoo's epic circumnavigation), Havildar Hangpan Dada, AC (Posthumous) and Subedar Avinash Sable, AVSM, VSM (our champion track and field athlete). Besides our Money Matters Column, a few anecdotal accounts have been included in this issue and make for interesting reading. In our regular Wellness column, Dr. Renuka David elucidates the various discussions during the immensely successful Radiant Wellness Conclave held on 09 August 2025 at Chennai.

As followed in this issue, we will not be based on any particular theme hereafter, but will combine the most interesting and readable articles that we receive, while also paying more attention to current events. Desirous authors may please send the articles to chiefeditor@medalsandribbons.com by 10 November 2025. We look forward to your earnest feedback. The Editorial Team thanks all the readers for your valuable support and your positive kudos. ■ ■ ■

IS GWADAR DOOMED TO FAIL?

Gwadar Port is the Flagship project of the China-Pakistan Economic Corridor (CPEC), and was envisioned to provide close presence and access to the Chinese to the Persian Gulf. **This article is an abridged version of an article published in the Naval Despatch mid 2025 based on research work done by the author as part of his elective studies at the Naval War College, Goa.**

Background

The Belt and Road Initiative (BRI) has far-reaching implications for global geopolitics. Pakistan's participation in BRI, particularly through the CPEC, is substantial, with investments over \$30 billion and anticipated costs surpassing \$60 billion. CPEC is envisioned to catalyse Pakistan's economic growth, diminish dependence on foreign aid, and foster national cohesion. CPEC's inception can be traced back to 1993 when the concept of the Port of Gwadar was formally conceived by the Government of Pakistan. In 2013, Pakistan's newly elected government, led by Prime Minister Nawaz Sharif, proposed an infrastructure development plan in collaboration with China aiming to capitalize on China's emerging BRI vision. China's Premier Li Keqiang quickly committed to the proposal, marking a new step in the strategic partnership between China and Pakistan.

Gwadar was envisioned to mitigate China's reliance on the Malacca Strait while developing Pakistan's infrastructure, promoting economic growth and internal stability. China's ambitions with CPEC included establishing a direct trade route to the Indian Ocean, reducing extremism in Xinjiang, and counterbalancing India and the US. For Pakistan, Gwadar was expected to promote national development and national unity. However, the project's objectives have been impacted by delays, and the port's viability as a transshipment hub remains questionable, necessitating a reassessment of its potential.

Today, Gwadar port faces significant operational challenges, including infrastructural limitations such as



*An aerial view of Gwadar city with seashore on both sides
(Photo by Shayhaq Baloch, credit en.wikipedia.org)*



Gwadar Deep Sea Port, 06 February 2007 (Photo Reuters)

inadequate channel depth, underdeveloped storage facilities, and insufficient transportation networks. The lack of hinterland connectivity results in costly and time-consuming transportation to Karachi, further exacerbated by insufficient investment in critical infrastructure like rail and road links. These challenges hinder Gwadar's potential as a major trade hub and raise concerns about its long-term sustainability. To comprehend the complexities surrounding Gwadar's development, each obstacle in turn is examined below for its potential impact on Gwadar's long-term sustainability.

Slowdown of Chinese Economy

China's economic growth is expected to slow down from 4.8% in 2024 to 4.3% in 2025, primarily due to ongoing weaknesses in the property market and low consumer confidence. This decline is exacerbated by the ongoing US-China trade and tariff wars. Although this development may not necessarily imply a decline in China's economic capability, it does suggest a potential plateauing of its economic growth,

implying a period of stagnation rather than sustained expansion.

As a result of this slowdown, China's BRI has also experienced a sharp decline in investments, dropping by 54% since 2019. This decline is attributed to criticism over infrastructure debt and loan defaults, as well as a shift in China's approach to overseas lending, focusing on short and medium-term assistance instead of large-scale infrastructure projects. To illustrate, China's investment in CPEC, decreased by 74% in 2023 and Gwadar's share of CPEC investment also declined from 30% in 2020 to 15% in 2023.

Commercial Unviability of Gwadar

While detailed data on Gwadar's actual shipping traffic are not available from the port's website, some details are available from other open sources. Prior to 2013, the port's operations were limited to handling government imports, including wheat and fertilizers, as well as occasional shipments from China and Afghanistan. Following China Overseas Port Holding Company's (COPHC) takeover in 2013, the port's primary activity shifted to handling equipment for infrastructure development projects. Between 2008 and 2017, only 200 ships visited Gwadar Port, with an average annual traffic of about 20 ships, with most ships carrying construction material or equipment for the port. Despite being completed in 2007, Gwadar has logged only 22 ships in its best year to date and failed to attract any scheduled deep-sea shipping lines.

In 2023, only 17 vessels docked at Gwadar, in stark contrast to the 441 ships that docked at Sri Lanka's Hambantota Port, which is also run by a Chinese-ports managing company. In comparison, Karachi, Pakistan's largest port and one of the three seaports in the country handled 1767 ships during the 2023-2024 fiscal year. China's COSCO shipping lines also terminated its container services between Karachi and Gwadar in 2019 due to the slow construction of the Gwadar Free Trade Zone (FTZ).

From 2019, a weekly feeder service was expected to start to Jebel Ali in the UAE by COSCO, but it has not yet commenced. Only seven container ships arrived at the port in 2019 and there was negligible mercantile traffic in 2020, though the CPEC authority reports on its website that the first import-cum-export cargo was moved from Gwadar FTZ on April 7, 2021.

Overall, since its establishment, the port is reported to have only

handled 70000 tons of wheat grain and around 500000 tons of fertilizer. Port authorities claim that up to 5000 tons of LPG from Oman and Qatar, for Pakistan's domestic use, and 30 to 50 containers have been transhipped for Afghanistan through Gwadar every month. This is not enough to keep the port profitable.

China's Malacca Vulnerability

Importantly, one of the factors that led to China expressing interest in the development of Gwadar was the proposed construction of an oil refinery and strategic oil reserve facility near the port, from where oil could be transported to China through a pipeline, thereby reducing its dependence on the Malacca Strait. These projects, while discussed in the public domain, have not formed part of CPEC's ambit. Moreover, it has been estimated that while the cost of transporting a barrel of oil through the Malacca Strait is \$0.90 per barrel, moving it overland from Gwadar to Kashgar would cost between \$8 to \$12.4 per barrel. Also, Gwadar Port's limited capacity of 11 million tons makes it an impractical alternative for China's sea-borne trade, given that China's oil imports exceeded 564 million tons in 2023, rendering Gwadar ineffective in mitigating China's Malacca vulnerability.

Vulnerability of the Karakoram Highway

The Karakoram Highway, crucial for transporting crude oil from Gwadar to China, faces significant challenges due to its vulnerability to natural disasters, geological hazards, and potential sabotage. The region's susceptibility to earthquakes, landslides, and unpredictable weather conditions renders the highway unreliable, impacting the viability of Gwadar port as a strategic solution to China's Malacca vulnerability.

Revenue Generation

Gwadar Port's financial viability is a concern, as 91% of its revenue will go to Chinese companies during the 40-year concession period, leaving only 9% for the Gwadar Port Authority. Despite projections that the Gwadar smart port city may contribute \$200-300 billion to Pakistan's GDP by 2050, the port's current revenue structure poses significant financial challenges for Pakistan, potentially rendering it a liability in the near future. Gwadar Port's revenue projections have not materialized, with actual earnings significantly lower than expected. Between 2016 and 2019, the port generated only \$2.40 million in gross revenue, with the Gwadar Port Authority receiving \$0.216 million (9% share), far short of initial projections of \$7-12 billion annually.

Availability of Better Alternatives

Gwadar faces stiff competition from established ports in the region, including Chahbahar, Bandar Abbas, Dubai, Khorfakkan, Fujairah, and Salalah, which have superior connectivity, infrastructure, and hinterland support. In the short term, it appears that Gwadar only has the potential to become a hub port for other Pakistani ports like Karachi and Port Qasim.

Chronic Corruption

Pakistan faces a significant challenge with corruption, ranking among the most corrupt countries globally, with a score of 29/100 on Transparency International's 2024 Corruption Perceptions Index. Corruption in Pakistan is not limited to the normal routine matters but also extends to national projects like the

CPEC. In fact, Chinese authorities have voiced apprehensions that approximately 80 per cent, of investments earmarked for CPEC are being siphoned off due to corrupt practices.

Political Consensus and Alienation

A less visible yet significant form of resistance to CPEC has emerged in Pakistan's political landscape, driven by concerns over inequitable resource distribution, ethnic alienation, and lack of transparency, potentially impacting the project's long-term viability. CPEC's original Western route, intended to benefit underdeveloped regions like Balochistan and Federally Administered Tribal Areas (FATA), was altered in favour of an Eastern route through Punjab and Sindh, sparking opposition from constituencies along the original route. The news that the central government was exploring an alternative "Eastern" route through more developed areas sparked intense opposition from constituencies along the original "Western" route.

Another major concern surrounding CPEC is the project's lack of transparency regarding funding agreements and project scope. Confidentiality surrounding funding and selective disclosure of the master plan have eroded trust and fuelled provincial alienation, particularly in Balochistan. This lack of transparency has fuelled concerns and given rise to a feeling of alienation amongst other provinces, especially Balochistan.

Baloch Insurgency

In Balochistan, particularly in Gwadar, local communities have experienced significant alienation due to displacement by Chinese workers



A general view of Gwadar Port, January 29, 2018 (Photo/Xinhua)

and loss of livelihoods, exacerbating existing tensions. The Balochistan Liberation Army's (BLA) attacks, including the 2019 luxury hotel assault in Gwadar and the March 11, 2025 train hijacking in Bolan, demonstrate escalating unrest in Balochistan. This surge in violence reflects a generational struggle against the Pakistani establishment, with BLA seeking independence for the resource-rich yet economically underdeveloped region. The situation is aggravated by instability in neighbouring Afghanistan and Iran, unrest in FATA and Gilgit-Baltistan, the Islamic State-Khorasan, the presence of militant Uyghur groups opposed to China and other factors. The ongoing instability in Pakistan has increased security costs, deterring international participation in projects like CPEC. Without a viable solution in sight, this instability is likely to persist as a long-term challenge.

Another issue linked to the problem of insurgency, is that attracting investors to Gwadar's FTZ will be challenging due to high operating costs, largely driven by

the need to import labour from other provinces. The region's instability and inadequate infrastructure will likely require higher wages to incentivize external workers, casting doubt on official job creation projections. Hence, while official estimates optimistically forecast that CPEC will generate about 2.3 million new jobs, including at least 50000 local jobs in Gwadar, in reality this is extremely unlikely.

Lack of Critical Infrastructure

Gwadar faces significant infrastructure challenges, including chronic electricity and water shortages, hindering its potential as a regional transshipment hub. The city's 90000 residents lack access to adequate clean drinking water, prompting protests and demonstrations, such as the 16

October 2023 road blockade. On the electricity aspect, government data reveals that Pakistan's power generation capacity increased by approximately 5000 MW between 2015 and 2020, primarily through coal-based power plants. However, the benefits are unevenly distributed, with most plants located in Punjab and Sindh, catering to urban areas in Eastern regions while Western regions have outdated and sparse transmission grids, leaving local households with inadequate access to electricity.

An Airport in the Middle of Nowhere. Gwadar International Airport, inaugurated on October 14, 2024, currently operates with limited activity, featuring only one weekly flight to Karachi. The airport's commercial viability is hindered by Gwadar's underdeveloped industry, limited medical facilities, and lack of tourism, as well as security concerns and isolation from the hinterland. As a result, the airport's potential usage appears restricted to serving Chinese nationals working in the region and the Pakistan Air Force, which is insufficient for commercial sustainability.

Underdeveloped Hinterland. Gwadar faces a significant challenge due to the lack of a developed hinterland and relies on external supplies for basic necessities. Massive investment is required to establish essential infrastructure, but funding remains uncertain given the financial constraints of Balochistan and Pakistan. Secondly, Gwadar's development as a hub port faces challenges, including the need for low port charges and cargo handling costs to attract shipping lines. However, providing subsidies to offset development costs may not be feasible due to existing loan burdens. Additionally, the port's insufficient power supply, reliance on diesel generators, is further complicated by

'environmental concerns' causing delays in construction of planned coal-fired power plants.

Chinese Influence and Pakistan Army Push Back

CPEC presents a dual-edged scenario for Pakistan, offering substantial economic benefits while posing significant challenges to its sovereignty and autonomy. While CPEC promises to boost Pakistan's economy through infrastructure development and investment, concerns surrounding economic dependence, security dynamics (for example, increase of Chinese military presence on Pakistan soil), infrastructure control (handing over of critical projects to Chinese firms), and debt diplomacy risks underscore the potential implications for Pakistan's decision-making authority and national sovereignty.

Pakistan's relationship with China is marked by Chinese influence in politico-military spheres. Chinese private security contractors are operating in Pakistan, despite regulatory restrictions, and have been deployed to safeguard Chinese interests. Reports also suggest Chinese officials are engaging with Baloch insurgent leaders, offering financial incentives for security guarantees. These developments indicate significant Chinese clout over Pakistani authorities, potentially straining relations and raising concerns about Pakistan's sovereignty and control. Tensions over CPEC project security and Chinese nationals have already led to diplomatic friction, with both sides exchanging strong words. To summarise, while Pakistan does reap substantial economic benefits from CPEC and Gwadar, the increase in Chinese influence and interference in security issues will someday cross a critical point wherein Pakistan Army, the hub of power in



The Gwadar Free Trade Zone and port area, April 2021 (Image Shabbir Ahmed)

Pakistan, could start feeling insecure and pushback against China.

Climate Change and Planning Flaws

Balochistan is highly vulnerable to climate-related disasters, with a 2022 report by World Weather Attribution revealing a 75% increase in 5-day maximum rainfall intensity due to a 1.2°C rise in global temperatures, exacerbating flood risks. Recent floods in Gwadar have exposed the city's inadequate urban planning, with lack of proper drainage systems, rapid population growth, and encroachment on waterways contributing to water accumulation in populated areas. This has worsened the impact on local communities, highlighting the need for improved infrastructure and disaster management. Climate change has also

led to increased frequency and severity of extreme weather events, prolonged droughts, and water scarcity, affecting agriculture, livestock, and public health in the region.

Conclusion

CPEC and Gwadar face significant challenges, including limited commercial viability, vulnerability of the Karakoram Highway, chronic issues of corruption and insurgency, and souring Sino-Pakistan relations. Given the complexity and depth of these challenges, it appears unlikely that the Gwadar project will achieve its intended objectives. Under these circumstances it may be reasonable to conclude that **the Gwadar project of CPEC is doomed to fail.**



Group Captain Trilok Singh Negi was commissioned in the Indian Air Force on 21 June 2003. He is a Cat 'A' Qualified Flying Instructor, an Instrument Rating Instructor and Examiner' and an Air Force Examiner. The officer is an alumnus of Defence Services Staff College, Wellington and the Naval War College, Goa and is presently posted as the Chief Instructor at Fixed Wing Training Faculty, Air Force Station, Yelahanka.



**Group Captain
Trilok Singh Negi**

PAKISTAN'S INFORMATION WARFARE AGAINST INDIA

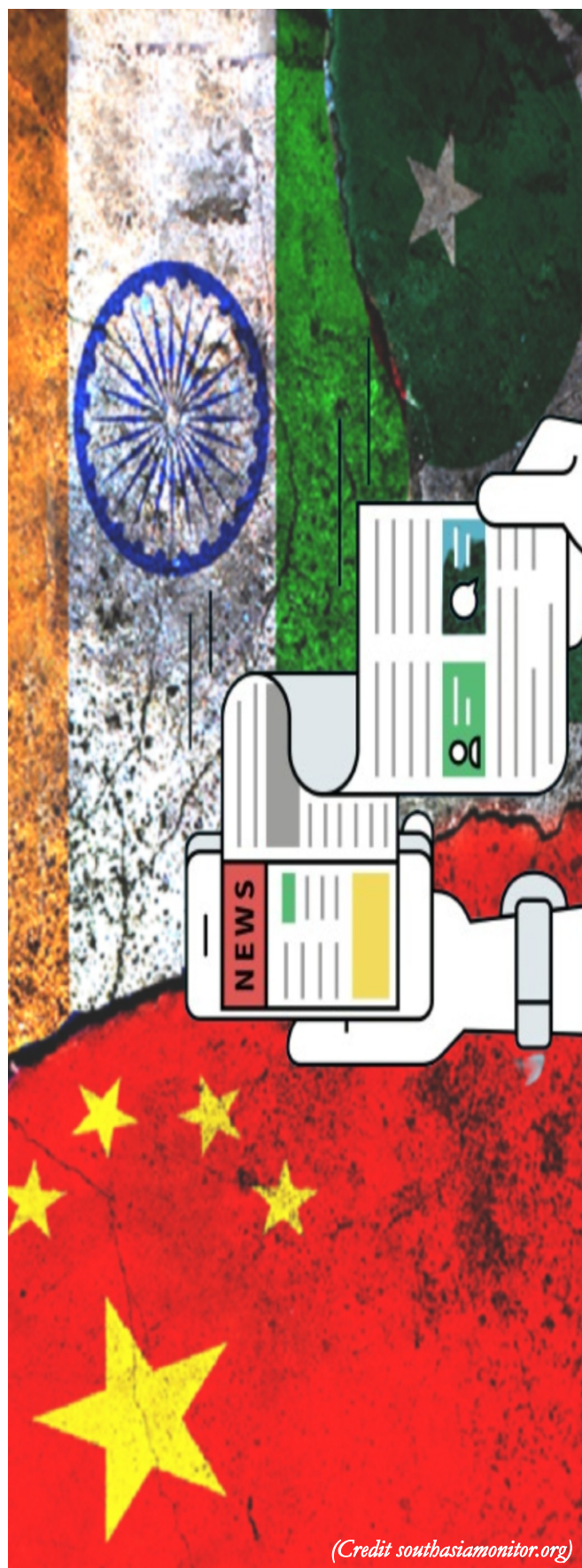
Historical Continuities,
Contemporary Practices and
Domestic Paradoxes

Information warfare has increasingly become one of the most potent tools of statecraft in the 21st century. Unlike conventional wars, which are fought on land, sea, and air, information wars take place in the minds of populations, shaping perceptions, narratives, and legitimacy. Pakistan has historically invested heavily in information warfare against India, treating it not merely as an aide to kinetic operations but as a parallel theatre of conflict. This paper explores these dynamics in a historically informed, academically styled narrative.

Since its founding in 1947, Pakistan's military establishment has rooted information warfare at the centre of its security strategy. This effort was established within Pakistan's military establishment, with the creation of the Inter-Services Public Relations (ISPR), established in 1949. This organisation looks after information operations, producing media content like dramas and films, and plays a role in information warfare. Led by a high-ranking general, the ISPR aims to build public support for the military and its policies, while also manufacturing propaganda and monitoring media reports on Pakistan's military issues.¹

The Directorate General ISPR today represents one of the most erudite state-run propaganda agencies in South Asia, a sophisticated propaganda apparatus which shapes narratives

¹ Divya Malhotra, (2020), "Inter-Services Public Relations (ISPR) Assessment of the Pakistan Military's Discreet Propaganda Factory Post-1990", Manohar Parrikar Institute for Defence Studies and Analysis, *Journal of Defence Studies*, Vol. 14, No. 4, October–December 2020, pp. 37–57, <https://www.idsa.in/system/files/jds/jds-14-4-2020-inter-services-public-rel.pdf>



(Credit southasiamonitor.org)

domestically and internationally. The persistence of these practices stems from Pakistan's deep-seated insecurities over the legitimacy and identity of its nation. Critics within Pakistan, journalists, academics, and activists often pay a steep price for dissent, underscoring the authoritarian dimensions of this campaign. During events such as the Balakot strikes, **Operation Sindoor**, and post these conflicts, the outreach initiatives organised by the ISPR and ISI in 2025 exemplify the methods, reach, and inherent paradoxes of Pakistan's information warfare.

Historical Foundation of Pakistan's Information Warfare

From its inception, Pakistan sought a psychological advantage to compensate for material disadvantages vis-à-vis India. The dependence on narrative control began almost immediately after independence. In 1947, Pakistan's leaders faced the daunting challenge of nation-building amidst fragile institutions, contested borders, and a lack of political cohesion. The elite project of constructing a unified Islamic identity, as opposed to India's pluralist framework, required deliberate control over historical memory and information dissemination. State-sponsored media framed Pakistan as

the natural homeland for Muslims, while portraying India as an existential adversary.

This foundational narrative was amplified during the first Kashmir war of 1947–48. Pakistan not only deployed irregulars and tribal fighters into Kashmir but also orchestrated a campaign of disinformation to portray the conflict as an impulsive uprising rather than an externally sponsored invasion. In these early years, the seeds of psychological operations were visible - propaganda broadcasts, printed pamphlets, and community mobilisation through religious rhetoric created an enduring template for subsequent decades.

By the 1965 war, information warfare had become an organised component of Pakistan's military doctrine. **Radio Pakistan** and state-run newspapers like **Pakistan Times** churned out stories of heroic victories and fabricated accounts of Indian defeats. The most infamous example remains the claim of downing two

Indian aircraft and fake news about capturing areas of Punjab and entering South Delhi, while ignoring the loss of Pakistani planes². Radio Pakistan is alleged to have relayed coded messages via its station to the Pakistani irregulars who entered the Indian state of Jammu and Kashmir. Domestically, these narratives succeeded in galvanising public sentiment but also set unrealistic expectations, which later turned into disillusionment after the Tashkent Declaration.

The 1971 Bangladesh crisis highlighted both the potency and limits of Pakistan's information warfare. As the Pakistani military unleashed violence in East Pakistan, ISPR projected the conflict as an Indian conspiracy, suppressing reports of atrocities.³ Journalists who sought to tell the truth, such as Anthony Mascarenhas, faced exile, while dissenting voices within Pakistan were silenced.⁴ The eventual dismemberment of Pakistan exposed the hollowness of its propaganda, yet

² Kashmir Records, "1965 War: When Pakistani Troops had 'entered' Jammu City, 'bombed' South Delhi", <https://kashmir-records.com/1965-warwhen-pakistani-troops-had-entered-jammu-city-bombed-south-delhi/>

³ Maj Gen Harsba Kakkar, (2022), "Ghost of 1971 War still looms large on Pakistan", India V's disinformation, December 3, 2022, <https://www.india-vsdisinformation.com/2022/12/03/ghost-of-1971-war-still-looms-large-on-pakistan>

⁴ Ian Jack, (2011), "It's not the arithmetic of genocide that's important. It's that we pay attention", The Guardian, May 21, 2011, <https://www.theguardian.com/commentisfree/2011/may/21/ian-jack-bangladesh-war-genocide>



Promotional poster of Pakistani TV Drama 'Ehd-e-Wafa'



DG ISPR Lt Gen Ahmed Sharif Chaudhry addresses a media briefing alongside Air Vice Marshal Aurangzeb Ahmed and a Pakistan Navy officer, after Operation Sindoor.

the establishment doubled down, convinced that tighter control over information was essential for regime survival.

During the 1980s, Pakistan's role in the Afghan Jihad against the Soviet Union brought new dimensions to its information war. With extensive backing from the United States and Saudi Arabia, Pakistan's Inter-Services Intelligence (ISI) and DGISPR perfected the art of narrative construction. Jihad was glorified as a divine duty, and India was increasingly framed not only as a political rival but as a civilizational adversary. This framework of ideological warfare laid the foundation for the Kashmir insurgency of the 1990s, where information campaigns became as significant as militant infiltration. For its objectives, the ISI had spread the tentacles of terrorism not just in the Kashmir valley but also in Punjab, Assam and Nagaland by publicising its subversive propaganda on fundamentalist and communal lines.⁵

The 2019 Balakot airstrikes by India marked a new high point in Pakistan's information warfare. After the Indian Air Force struck Jaish-e-Mohammad terror

camps in Pakistan, it launched a multipronged disinformation campaign. The DGISPR immediately dismissed Indian claims, showcasing images of barren land and asserting that no damage had been done.⁶ It went further to claim that the Pakistan Air Force had downed multiple Indian aircraft and captured Indian pilot Wing Commander Abhinandan Varthaman. While the capture of Abhinandan was a tactical reality, Pakistan exaggerated the scale of its "victory" in the information space.

The ISPR amplified hashtags, released curated videos, and orchestrated nationwide celebrations. However, satellite imagery and independent reporting later confirmed significant damage at the

Balakot camp, and Pakistan's inflated claims became subject to ridicule on global platforms. This episode revealed the dual-edged nature of information warfare; while it can mobilise national sentiment temporarily, it can also erode credibility when exposed.

Similarly, the aftermath of **Operation Sindoor** (2025) has once again demonstrated the centrality of information warfare in Pakistan's strategy. In response to Indian strikes, ISPR flooded social media with images of supposed damage to Indian bases, while simultaneously claiming that Pakistan had defended its sovereignty with unmatched skill. Billboards in cities like Rawalpindi and Lahore displayed messages of "victory against India."⁷ However, Pakistani citizens themselves trolled the DGISPR for recycling old videos, using video game footage⁸, and inflating figures. Hashtags mocking the ISPR⁹ trended on Pakistani

⁵ Gurmeet Kanwal, (1999), "Proxy war in Kashmir: Jibad or state-sponsored Terrorism", April 1999, Vol XXIII No. 1, Strategic Analysis, Manohar Parrikar Institute for Defence and Studies and Analysis, https://ciaotest.cc.columbia.edu/olj/sa/sa_99kag02.html#:~:text=In%20the%20early%201990s%2C%20when,rocket%20propelled%20grenades%20were%20used.

⁶ Ahmedabad Mirror, (2025), "Pakistani media peddles fake news after IAF air strike in Balakot" August 25, 2025, <https://www.ahmedabadmirror.com/pakistani-media-peddles-fake-news-after-iaf-air-strike-in-balakot/68189539.html>

⁷ Soumya Awasthi, (2025), "Weaponising the Narrative: Social Media Propaganda post-Pabalgam Attack", Observer Research Foundation, May 13, 2025, <https://www.orfonline.org/expert-speak/weaponising-the-narrative-social-media-propaganda-post-pabalgam-attack>

⁸ AFP Thailand, (2025), "Video game footage misrepresented as fighting between India and Pakistan", June 04, 2025, <https://factcheck.afp.com/doc.afp.com.46262G3>

⁹ Times of India, "Jung Karni hai to...: How Pakistanis are trolling themselves on Social Media", April 25, 2025, <https://timesofindia.indiatimes.com/world/pakistan/jung-karni-hai-to-how-pakistanis-are-trolling-themselves-on-social-media/articleshow/120622600.cms>

Twitter, reflecting growing scepticism within the country about the authenticity of official narratives.¹⁰

DGISPR as the Central Node for Propaganda

In 2024, ISPR was reorganised, elevated under a Lieutenant General, and expanded with two Major Generals overseeing domestic and foreign communications—a clear sign of its growing strategic role.¹¹ Today, DGISPR's activities include media relations, cultural production such as dramas like *Ehd-e-Wafa*¹², and educational outreach programmes like Hilal Talks 2025¹³, which engaged nearly 1950 teachers from across Pakistan on disinformation¹⁴, fifth-generation warfare, and threats to national unity.

At the heart of this machinery lies the systematic use of disinformation campaigns in the digital space. Fake handles, automated bots, and coordinated troll networks are frequently deployed to manufacture or distort narratives, often framing Indian actions as “false flag operations” or fabricating evidence to

delegitimise India's stance in international forums.¹⁵ These practices were particularly evident during the 2025 crisis, when doctored video clips, video-game footage repurposed as live combat visuals, manipulated CNN graphics, recycled footage from past incidents, and false claims of Indian prisoners of war were all circulated through DGISPR's official channels and affiliated social media networks.¹⁶

Beyond the realm of digital fakery, ISPR invests heavily in emotional and cultural messaging that exploits existing societal and religious sensibilities. Narratives consistently frame Pakistan as the perpetual victim of aggression and India as the oppressor, thereby weaponising both nationalist sentiment and religious identity to consolidate domestic support. Cultural production plays a key role in this effort: television dramas and films, sometimes directly produced or promoted by ISPR, such as *Khel Khel Mein* or *Jo Bicher Gaye*, deliberately reinterpret and sanitise contested historical episodes like the 1971 War and the fall of East Pakistan.

These productions seek to instil in younger generations a state-approved historical memory, aligning public consciousness with the army's preferred narrative.¹⁷

Another crucial dimension of Pakistan's information strategy is the global amplification of its narratives through allies. State-backed media outlets from Türkiye, such as TRT World, and Chinese platforms have often carried and legitimised Pakistan's claims¹⁸, particularly during high-tension moments like the 2025 hostilities, thereby helping Islamabad penetrate international discourse beyond its limited organic reach. At the same time, denial and victimhood narratives remain central to ISPR's playbook. Even in the face of contradictory or verifiable facts, such as former President Pervez Musharraf's admissions regarding cross-border militancy or the discovery of Osama bin Laden in Abbottabad, Pakistani officialdom has repeatedly maintained categorical denials.¹⁹ These denials, rather than undermining

¹⁰ Shankul Bhandare, (2021), “Pakistan's Twitter Propaganda Special Force Revealed”, Defence XP, February 26, 2021, <https://www.defencexp.com/pakistan-twitter-propaganda-special-force-revealed/>

¹¹ Web Desk (2024), “ISPR Reorganisation: Two Major Generals to take charge under DG Lt Gen Ahmed Sharif”, Pakistan Today, July 31, 2024, <https://www.pakistantoday.com.pk/2024/07/31/ispr-reorganization-two-major-generals-to-take-charge-under-dg-lt-gen-ahmed-sharif/>

¹² Zainab Khan and Abdul Wajid Khan, (2021), “Role of ISPR in Countering Hybrid Warfare”, Human Nature Journal of Social Science, Vol 1. No.1 (March 2021), pp. 12-21, <https://journals.indecojournals.com/api/file/viewByFileId/1253250.pdf>

¹³ Dunya News, (2025), “Hilal Talks 2025 programme launched under ISPR's Supervision”, Dunya News, May 29, 2025, <https://dunyaenews.tv/en/Pakistan/886629-bilal-talks-2025-programme-launched-under-isprs-supervision>

¹⁴ Maarif Farooq, (2025), “Hilal talks 2025 Launched by ISPR to Counter Disinformation and Educate Educators”, Pakistan Economic Network, May 29, 2025, <https://pakeconet.com.pk/news/147502/bilal-talks-2025-launched-by-ispr-to-counter-disinformation-and-educate-educators>

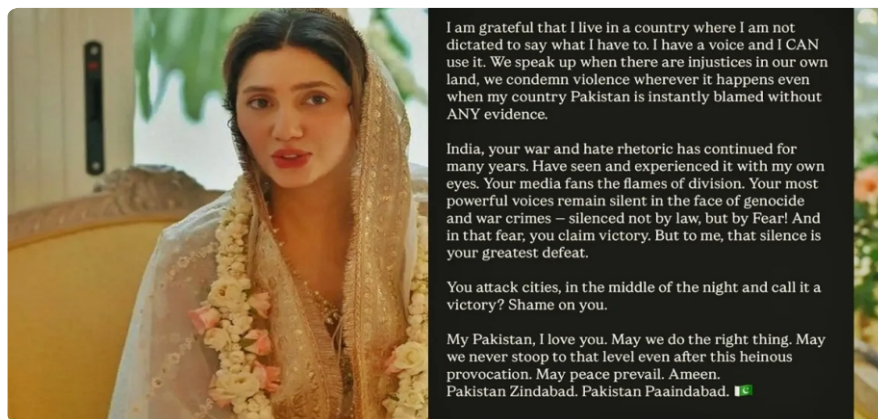
¹⁵ Imtiaz Gul, (2021), “Exposing the Fake news war against Pakistan”, West Asia Forum, January 9, 2021, <https://eastasiaforum.org/2021/01/09/exposing-the-fake-news-war-against-pakistan/>

¹⁶ Soumya Awasthi, (2025), “Weaponising the Narrative: Social Media Propaganda post-Pabalgam Attack”, Observer Research Foundation, May 13, 2025, <https://www.orfonline.org/expert-speak/weaponising-the-narrative-social-media-propaganda-post-pabalgam-attack>

¹⁷ Nithya Subramanian, (2021), “ISPR: Setting the Agenda through Popular Entertainment”, ISAS Briefs, National University of Singapore, October 7, 2021, <https://www.isas.nus.edu.sg/papers/ispr-setting-the-agenda-through-popular-entertainment/>

¹⁸ Rizbi Suri, (2025), “Strategic Disinformation: The Role of Turkey, China, and Bangladesh in Pakistan's Information Warfare against India during Operation Sindoor”, Global Order, May 14, 2025, <https://www.globalorder.live/post/strategic-disinformation-the-role-of-turkey-china-and-bangladesh-in-pakistan-s-information-warfare>

¹⁹ BBC, “Musharraf: ISI ‘not complicit’ in hiding Bin Laden”, May 25, 2011, <https://www.bbc.com/news/world-south-asia-13547940>



Mahira Khan's statement on Instagram after Operation Sindoor, criticizing India's "war and hate rhetoric".

reinforces Islamabad's position within contested global debates.

Outreach to Legitimise Its Actions and Convert Failures into Victory Narratives

A defining feature of ISPR has been its sustained effort to transform military setbacks into triumphs through strategic outreach and narrative management. This process is not merely reactive propaganda; rather, it constitutes a systematic attempt to legitimise Pakistan's military actions in the eyes of both domestic and international audiences, thereby shielding the state from scrutiny and reinforcing the Armed Forces'

credibility domestically, feed into a carefully cultivated sense of victimhood that Pakistan is consistently misrepresented or unfairly maligned by external powers. Together, these mechanisms reveal not only the sophistication but also the calculated opportunism of Pakistan's information warfare strategy, which seeks simultaneously to shape domestic perceptions, project international legitimacy, and undercut India's credibility in global opinion.

The ISPR extends influence well beyond India, reaching into regional and global arenas where Pakistan seeks to cultivate legitimacy and strategic support. In its regional outreach, ISPR has actively targeted audiences, tailoring narratives that resonate with local political and cultural sensitivities to project Pakistan as a stabilising force rather than a disruptor.²⁰ Simultaneously, its efforts at global perception management involve consistent engagement with international media outlets, think tanks, and multilateral organisations, particularly on issues related to human rights and counterterrorism.²¹ By framing Pakistan as both a victim of extremism and a responsible security partner, DGISPR works to shape international narratives in a manner that mitigates criticism, enhances diplomatic leverage, and

dominance in national life.

Domestically, ISPR undertakes extensive outreach campaigns designed to saturate the public sphere with carefully crafted messaging. Following episodes where Pakistan has suffered setbacks, such as after the 1971 war, the Kargil conflict, or more recently, the Balakot airstrikes of 2019 and **Operation Sindoor** in 2025, ISPR has sought to recast failure into narratives of resilience and even tactical superiority.²² ISPR highlighted selective footage of alleged Indian casualties, conducted interactions with students and teachers across Pakistan, and erected hoardings celebrating "victories" against India.²³ These campaigns aimed to construct a narrative of defiance and strength despite widespread trolling of ISPR online, where Pakistani citizens themselves mocked the military's disinformation, exposing doctored videos and fabricated evidence.²⁴

²⁰ News Desk, (2023), "Role of ISPR, ISIS and MI in Addressing Internal and External Threats", *Daily The Spokesman*, October 12, 2023, <https://dailyspokesman.net/live/the-role-of-ispr-isi-and-mi-in-addressing-internal-and-external-threats/>

²¹ Saima Shabbir, (2025), "Pakistan Army Chief meets senior American Political, Military Leadership during US Visit", *Arab News*, August 10, 2025, <https://www.arabnews.com/node/2611309/pakistan>

²² Sambad English Bureau, (2025), "Pakistan's attempt to mirror India's Operation Sindoor briefings draws global ridicule", *Sambad English*, May 12, 2025, <https://sambadenglish.com/national-international-news/pakistan-attempt-to-mirror-indias-operation-sindoor-briefings-draws-global-ridicule-9061148>

²³ Maarij Farooq, (2025), "Hilal talks 2025 Launched by ISPR to Counter Disinformation and Educate Educators", *Pakistan Economic Network*, May 29, 2025, <https://pakeconet.com.pk/news/147502/hilal-talks-2025-launched-by-ispr-to-counter-disinformation-and-educate-educators>

²⁴ The Mint, (2025), "Pakistan Defence Minister TROLLED by own Leaders over 'Social Media is Proof' Remark", *YouTube*, May 08, 2025, <https://www.youtube.com/watch?v=AuzyMqY25kk#:~:text=Earlier%2C%20when%20asked%20about%20Pakistan's%20claim%20of,subject%20of%20brutal%20trolling%20on%20social%20media.>

The ISPR's address during the campaign reinforced long-standing themes: Kashmir as an inseparable part of Pakistan, terrorism as an Indian-sponsored phenomenon, and the military's societal role beyond defence, stretching from polio eradication to public development campaigns.²⁵ By embedding such messaging into academic circles, ISPR sought to institutionalise its narrative at the source of intellectual and civic influence, ensuring that its preferred worldview permeates both classrooms and wider civic consciousness.

Domestic Backlash and the Erosion of Credibility

Despite ISPR's expansive reach and systematic control of information, internal dissent within Pakistan is becoming increasingly visible. The digital landscape, particularly social media platforms like X, TikTok, and YouTube, has created spaces where the military's claims are openly contested, ridiculed, and deconstructed in real time. Following **Operation Sindoor**, this backlash reached unprecedented levels. Pakistani netizens quickly mocked ISPR's fabricated video clips and exaggerated claims of success by producing satirical memes, parody songs, and viral skits that questioned the authenticity of the official line. The speed and creativity of this response demonstrated that ordinary citizens, armed with smartphones and humour, could puncture the carefully curated image of military infallibility within hours of a state-sponsored announcement.

The backlash was not limited to online activists. Prominent cultural figures, including actors such as Fawad Khan and Mahira Khan, who had expressed dismay at the violence and called for restraint, were vilified by hyper-nationalist audiences and targeted by pro-military commentators.²⁶ In some cases, these celebrities were

accused of being “unpatriotic” or “echoing Indian propaganda,” illustrating how ISPR's narratives can foster a polarised environment where even moderate calls for peace or accountability are delegitimised. Such vilification campaigns reflect a broader tactic of narrative policing, where dissenting voices are stigmatised to preserve the sanctity of the military's self-portrayal.

Yet, the backlash has also created unintended consequences. Increasingly, Pakistan's younger generation, particularly urban, digitally savvy youth, have begun to draw comparisons between ISPR's selective storytelling and the reality visible through independent media, foreign outlets, and open-source intelligence (OSINT) communities.²⁷ This exposure has led to a widening credibility gap, where many Pakistanis no longer take ISPR's statements at face value. The erosion of trust is not uniform across society; rural and less-connected segments often remain more receptive to ISPR's messaging. However, in Pakistan's urban centres, the hubs of political activism, journalism, and academia, the decline in credibility is increasingly visible.²⁸

Interestingly, the credibility gap has also spilt over into the legal and political domains. The cumulative effect of these developments is a widening gap between state narratives and public perception. For ISPR, the traditional playbook of

controlling information through monopolisation of broadcast media, orchestrated cultural productions, and selective transparency appears increasingly inadequate in an era where digital citizens can act as fact-checkers, satirists, and counter-narrators simultaneously. For Pakistan's strategic culture, this shift signals not merely a crisis of credibility for ISPR but also the slow erosion of the military's monopoly over defining “truth” in the national discourse.

Institutional Insecurity: The Driving Force

Pakistan's reliance on information warfare is rooted in a more profound legitimacy crisis of the state and its military establishment. This crisis is multidimensional, and ethnic fragmentation, economic fragility, political volatility, and governance failures converge to create a permanent sense of insecurity. The military has historically sought to externalise these insecurities by constructing India as the “*perennial antagonist*,” a move that allows it to justify its oversized role in national life. Yet this strategy is double-edged: while it projects strength outward, it also betrays the very vulnerabilities it seeks to mask.

Socio-economic Pressures. Pakistan's economic situation is emblematic of structural fragility.

²⁵ Radio Pakistan, “Kashmir is Part of Pakistan: DG ISPR”, June 03, 2025, Radio Pakistan , <https://www.radio.gov.pk/03-06-2025/kashmir-is-part-of-pakistan-dg-ispr>

²⁶ Jubi Sharma (2025), “After Fawad Khan and Hania Aamir, Mahira Khan Shared A Post on Pabalgam Attack Deletes it Later”, Bollywood Shaadis.com, April 25, 2025, <https://www.bollywoodshaadis.com/articles/after-fawad-khan-bania-aamir-mahira-khan-pabalgam-attack-62946>

²⁷ Declan Walsh, (2009), “Report Warns of Pakistan's Younger generation losing faith in democracy”, The Guardian, November 20, 2009, <https://www.theguardian.com/world/2009/nov/20/pakistan-younger-generation-democracy->

²⁸ Mubashir Akram, (2023), “A Mapping Study, Social Movements in Pakistan”, Friedrich Ebert Stiftung, <https://library.fes.de/pdf-files/bueros/pakistan/20531-20231017.pdf>.

Inflation in urban centres has consistently increased.²⁹ Poverty has expanded, with the World Bank estimating that nearly 45 per cent of Pakistan's population now lives below the national poverty line, translating to over 95 million people.³⁰ Youth unemployment is a particularly acute problem, with around eight per cent of young people between the ages of 15 and 29 being neither employed nor in education or training, one of the highest rates in South Asia.³¹ With 64 per cent of Pakistan's population under the age of 30,³² this demographic imbalance is a ticking bomb: disillusioned, digitally connected youth form both the key audience and the sharpest critics of ISPR's narratives.

Law and Order Fragility. The internal security landscape further compounds these insecurities. Pakistan has witnessed a resurgence of terrorist incidents in recent years, particularly from Tehreek-e-Taliban Pakistan (TTP) and Baloch insurgent groups. According to the Global Terrorism Index (GTI) 2025, in 2024, the number of deaths due to terrorist attacks in Pakistan surged by 45 per cent with over 1000 incidents, with around 482 attacks by TTP alone.³³ These figures undermine ISPR's repeated claims of "decisive victories" in counterterrorism campaigns and highlight the cyclical nature of violence. In addition, urban centres like Karachi remain plagued by organised crime, land mafias, and sectarian militancy, reinforcing citizens' perception that the state's coercive power is selective and politicised.

Poverty, Hunger, and Basic Needs. Pakistan's Human Development Index (HDI) ranking (164th out of 193 countries) reflects systemic neglect of human security. Nearly 37 per cent of children under five are stunted due to chronic malnutrition, one of the highest rates in the world. The Global Hunger Index (2023) places Pakistan in the "serious" category, ranking 99 out of 125 countries. These indicators expose a paradox: while the state invests heavily in its military (over \$7.5

billion in FY2024–25, constituting nearly 16 per cent of federal spending), it lags far behind in social protection, healthcare, and education. Propaganda thus serves as a distraction by keeping India at the centre of national discourse; the military diverts attention away from structural governance failures.³⁴

Resource and Climate Insecurity. Water scarcity represents another existential threat, feeding into institutional insecurity. Pakistan is ranked among the world's top 10 water-stressed countries, with per capita availability dropping below 1000 cubic metres annually, a threshold defined as "absolute scarcity."³⁵ Agriculture, which employs the majority of the workforce and contributes to the GDP, is the primary victim, as erratic monsoons and glacial melt due to climate change exacerbate shortages. Meanwhile, the state often projects these crises as a result of "Indian water aggression," framing upstream dam projects in Jammu and Kashmir as deliberate threats, despite technical evidence showing otherwise. This securitisation of resource scarcity illustrates how propaganda is deployed to deflect blame for mismanagement of irrigation, urban water theft, and over-reliance on water-intensive crops like rice and sugarcane.

The Trap of Propaganda. These socioeconomic and governance challenges expose the state's institutional insecurity. When journalists, academics, or activists question the military's narrative by highlighting poverty, hunger, misgovernance, or the futility of endless hostility with India, the response is swift and punitive. Journalists such as Hamid Mir

²⁹ *Economic Times*, (2025), "Pakistan inflation rises 3.5% in May, exceeding forecast", June 02, 2025, <https://economictimes.indiatimes.com/news/international/world-news/pakistan-inflation-rises-3-5-in-may-exceeding-forecast/articleshow/121573036.cms?from=mdr>

³⁰ Vidhee Tripathi, (2025), "List of Countries with Poverty Rate Rises and Falls as per World Bank Data 2025", Jagran Josh, June 09, 2025, <https://www.jagranjosh.com/general-knowledge/list-of-countries-with-poverty-rate-rises-and-falls-as-per-world-bank-data-april-2025-1749480536-1>

³¹ Bakhtawar Mian, (2025), "Budget highlights alarming youth unemployment and skills gap", Dawn, June 11, 2025, <https://www.dawn.com/news/1916433>

³² United Nations, Department of Economic and Social Affairs, *World Population Prospects 2024*, https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/undesd_pd_2024_wpp_2024_advance_unedited_0.pdf

³³ Debdutta Chakraborty, (2025), "Pakistan 2nd on Global terrorism Index with 45 percent surge in terror attacks death last year, India 14th", The Print, 06 March 2025, <https://theprint.in/world/pakistan-2nd-on-global-terrorism-index-with-45-surge-in-terror-attack-deaths-last-year-india-14th/2536999/>

³⁴ United Nations Development Programme, (2024), *UNDP's 2023-2024 Human Development Report points to a global 'gridlock' of increased inequality and political polarisation*, March 14, 2024, <https://www.undp.org/pakistan/press-releases/undps-2023-2024-human-development-report-points-global-gridlock-increased-inequality-and-political-polarization>

³⁵ UNDP, "The Vulnerability of Pakistan's Water Sector to the Impacts of Climate Change", <https://www.undp.org/sites/g/files/zskgke326/files/migration/pk/Report.pdf>

have faced bans and physical attacks, while academics critical of the security state often encounter exile or censorship.³⁶ Instead of confronting these structural problems, ISPR frames dissent as “foreign-inspired” or “anti-national,” reinforcing the idea that propaganda is both shield and trap. It shields the military from accountability but traps the state in a cycle of deflection and denial, unable to address the underlying causes of insecurity.

In this sense, propaganda is not merely a communication strategy but a symptom of institutional fragility. It is an attempt to manufacture unity in a fragmented polity, yet in doing so, it deepens the legitimacy deficit. Unlike robust democracies that can absorb dissent and policy criticism, Pakistan’s security state treats every challenge, be it inflation, poverty, or water stress, as an opportunity to amplify external threats. Over time, this creates diminishing returns: the more the state leans on India-centric propaganda, the less convincing it becomes to a population facing empty stomachs, unpaid bills, and failing infrastructure.

Conclusion

Pakistan’s information warfare against India is neither episodic nor reactive - it is a structural instrument of statecraft rooted in deep institutional insecurity. From post-Balakot narratives to the propaganda ecosystem after **Operation Sindoor**, the military has consistently manufactured a climate of perpetual hostility with India to consolidate domestic authority and preserve international relevance. However,

the sustainability of this model is increasingly under strain.

For India, this presents both a challenge and an opportunity. The persistence of narrative warfare requires sustained investment in counter-information strategies, robust crisis communication mechanisms, and careful escalation management in the information domain. Yet, Pakistan’s growing credibility gap also allows India to leverage international partnerships and transparent communication to discredit hostile propaganda more effectively.

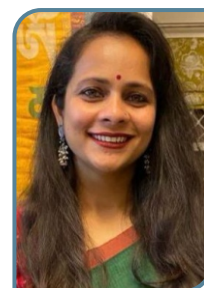
At the regional and international level, Pakistan’s strategy underscores how fragile states employ information warfare to mask governance failures. Left unaddressed, these risks perpetuate instability in South Asia by sustaining cycles of mistrust and confrontation.

For external stakeholders, including the United States, Europe, and multilateral institutions, the implication is clear: engaging Pakistan requires not only a complicated security calculus but also recognition of the disinformation ecosystem that props up its military-political complex.

Ultimately, propaganda cannot indefinitely substitute for governance. Unless Pakistan reconciles its domestic socio-economic vulnerabilities with its foreign policy ambitions, its information warfare will remain a paradox, projecting victories abroad while deepening fragility at home. **For India and the international community, the task is to recognise this paradox, respond with resilience, and avoid becoming captive to manufactured narratives.**



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³⁶ European Foundation for South Asian Studies, (2021), “Hamid Mir’s removal from Geo News has damaged Pakistani society and the military establishment more”, June 04, 2021, <https://www.efsas.org/commentaries/hamid-mir%E2%80%99s-removal-has-damaged-pakistani-society-and-the-military-establishment-more/>

BEYOND THE RIVERS

REVIEWING THE INDUS WATERS TREATY

Water is the most critical resource, source of life, driving force of all nature and also key to all economic activities. Despite its finite availability, water management has long been a persistent and unresolved challenge. Water has to be harnessed judiciously to meet the growing requirement of our developing economy. The need to develop, conserve and manage water resources cannot be overemphasized.

Backdrop

India achieved its freedom from the British on 15 August 1947, but not without enduring the pangs of Partition and creation of Pakistan. During this period, new international institutions like the United Nations Organization (UNO) and the International Bank for Reconstruction & Development (IBRD) (later the World Bank) emerged, focusing on global peace, security, poverty reduction, and economic development. Although the Radcliffe Line largely defined the land boundaries between India and Pakistan, the division of the Indus River system's waters remained undecided, leading to numerous disputes between the two countries due to a lack of understanding. In the 1950s, David Lilienthal, Chairman of the Tennessee Valley Authority, a successful model for multi-purpose river basin projects, visited India and Pakistan. Both the Indian and Pakistani governments welcomed him, and he submitted reports on efficient water management. The World Bank then intervened, with President Eugene R Black aiming to demonstrate the institution's ability to guide newly independent nations towards poverty reduction and economic development. Given the Indus system's vital importance to Pakistan's sustainability, multiple iterations of the Indus Waters Treaty (IWT) were discussed. The Treaty had both technical and



(Credit Indus Rivers Wallpapers, @botsford.dennis)

political dimensions; while engineering expertise available around that time was adequate for the technical challenges, the political element proved difficult. Ultimately, the IWT was signed on September 19, 1960, and subsequently came into force.

Technicalities

There are many ways that large volumes of water are represented. The modern system under the MKS (metre-kilogram-second) is km cube (Km^3) or billion cubic metres (BCM). The older system and the one that is used in IWT is million-acre-feet (MAF). MAF as a unit is larger than Km^3 , with 1 MAF equal to 1.23348 Km^3 . For easy understanding of how much 1 MAF is: the area of Delhi is 1484 square kms, and 1 MAF of water would flood the area of Delhi 2.73 times.

Rights concerning river systems are typically determined by factors such as historic usage, contribution to the river system, and water inflow and outflow within a territory. Despite India's significant contribution to the Indus River system within its own borders, we have historically utilized only 30% of our contribution, while Pakistan has availed itself of 70% of our contribution. Overall, Pakistan currently benefits from 84% of the Indus waters, leaving India with merely 16%. Pakistan's allocated rights allow it to use 135-140 MAF of water flowing from the Indus, Jhelum, and Chenab rivers, distributed as Indus: 90 MAF, Jhelum: 25 MAF and Chenab: 25 MAF.

Water Fact Sheets

India has 2% of world land, 4% of world fresh water resources, 17% of world population and 15% of the world cattle population. We need to feed our huge population and facilitate all manners of economic activities. Out of the total

landmass of India, 23% is forested area; 30% is wasteland and the rest 47% is available for agriculture. Out of this land available for agriculture, 37% is irrigated which produces 55% of food grains and the rest 63 % is rain fed, which produces only 45% of our food grains. One of the key objectives is to increase the irrigated area to produce more food grains to feed our growing population and cater to their consumption needs. In India, we have usable 690 Km^3 of surface water and about 440 Km^3 of replenishable ground water (GW) aggregating to 1130 Km^3 of total water availability. Our per-capita water availability in 2011 was 1545 m^3 which will reduce to 1090 m^3 by 2050 on account of our growing population. Also, by 2050 our aggregate water demand at 1180 Km^3 will outstrip our availability of 1130 Km^3 . In the last many decades, GW has been the foundation of most of our economic growth, but today ground water is under stress and the reserves are depleting, represented by falling water tables. Out of around 7000 GW assessment blocks, 16 % are over-

exploited (OE) meaning that the extraction is more than replenishment, many are critical and semi-critical. In the entire North and North-West India, the situation of ground water is alarming. Despite building approximately 400 Km^3 of water storage out of a possible 450 Km^3 , India remains a water-stressed nation.

Examining Pakistan's water fact sheet reveals an even more precarious situation than India's. Pakistan has 2.85 % of world's population and 0.5 % of the world's fresh water resource. Its total availability of water is about 247 Km^3 . Its replenishable ground water reserve is only 60 Km^3 , which is rapidly decreasing due to over extraction. Pakistan had 11% water deficiency in 2004, which has increased to about 31% in 2025 with about 80% population suffering from water stress as its per capita water availability was at alarming level of 1046 m^3 in the year 2022. Though both India and Pakistan are below the Falkenmark indicator of 1700 m^3 , Pakistan is much worse off. It



Dulbasti Dam on the Chenab River near Kishtwar (credit scoopnews.in)



Map showing the Western and Eastern Rivers (credit indiataoday.in)

(Storages) and H (Transactional Arrangements). The preamble which outlines the objects and purposes of the IWT reads as follows: -

"The Government of India and the Government of Pakistan, being equally desirous of attaining the most complete and satisfactory utilization of the waters of the Indus system of rivers and recognizing the need, therefore, of fixing and delimiting, in a spirit of goodwill and friendship, the rights and obligations of each in relation to the other concerning the use of these waters and of making provision for the settlement, in a cooperative spirit, of all such questions as may hereafter arise in regard to the interpretation of application of provisions agreed upon herein, have resolved to conclude a Treaty in furtherance of these objectives,"

is overwhelmingly dependent on the Indus River system, which accounts for 80% of its total water resources. While Pakistan's water storage capacity, at 160 Km³, is not insignificant, its effective storage duration is a mere 30 days, dramatically less than India's 300 days.

The Indus Waters Treaty

The Treaty has a Preamble, 12 Articles and Annexures A to H. The Indus River system comprises of Sutlej, Beas and Ravi (collectively called the Eastern Rivers) and Chenab, Jhelum and Indus (collectively called Western Rivers). Out of these, four originate in India, namely Beas, Ravi, Chenab and Jhelum, while Sutlej and Indus Rivers originate in Tibet, China close to Manasarovar Lake, but have major contribution from catchment areas within India. What the IWT essentially did is to give the rights of consumptive use of water of the three Eastern Rivers to India, and rights of consumptive use of water of the three Western Rivers to Pakistan.

While the main body of the Treaty is bad for India (Articles I to XII) the Annexures are killing, especially D (Hydropower projects), E

Critical examination of the Preamble would indicate that while the IWT gave complete and most satisfactory utilization of water to Pakistan, it deprived India of the same opportunity. Second, the wars of 1965, 1971, Kargil and then the incidents of Pahalgam and other massacres showed that the spirit of goodwill and friendship was totally missing from Pakistan. It continues to coordinate terror acts against us at every opportunity. Pakistan's stated policies of "bleeding India with a thousand cuts" and "Jammu & Kashmir being their jugular vein" clearly demonstrates their inimical stance. While the provision for settlement of disputes is in a cooperative spirit, Pakistan has been most obstructionist. The IWT can be revisited by invoking the Preamble read with Article VII (Future Cooperation). So, let us look at the details of the IWT.

Various Articles of the IWT:-

- | | | |
|-------------|---|---|
| Article I | : | Definitions (1) to (16). |
| Article II | : | Provisions regarding Eastern Rivers (1) to (9). |
| Article III | : | Provisions regarding Western Rivers (1) to (4). |
| Article IV | : | Provisions regarding Eastern Rivers and Western Rivers (1) to (15). |
| Article V | : | Financial Provisions (1) to (7). Vide this Article, India committed to pay Pakistan 62-million-pound sterling to fund Pakistan to develop their canal and storage network to be able to carry water from Western Rivers to the areas of the Eastern Rivers. |
| Article VI | : | Exchange of Data (1) to (2). |
| Article VII | : | Future Co-operation (1) to (2). |

Article VIII: Permanent Indus Commission (1) to (10).
 Article IX : Settlement of Differences (1) to (6).
 Article X : Emergency Provisions.
 Article XI : General Provisions (1) to (3).
 Article XII : Final Provisions (1) to (4).

Various Annexures of IWT:-

Annexure-A.

Exchange of notes between Government of India and Government of Pakistan. Part I (1) to (7) and Part II.

Annexure-B.

Agriculture use by Pakistan from certain tributaries of Ravi River (1) to (6).

Annexure-C.

Agriculture use by India from the Western Rivers. Existing and future (1) to (11) restricted the usage by India.

Annexure-D.

Generation of Hydropower by India on the Western Rivers. Read with Article III (2)(d). This Annexure is a Treaty in itself. It has given veto rights to Pakistan and tied India's hands in the matter. It has a Preamble, Part 1 to Part 5, Appendix I, II & III. This Annexure D seriously impacts India's rights to develop hydro-power on the Western Rivers.

Annexure-E.

Storage of Water by India on the Western Rivers. Read with Article III (4). This is also a Treaty in itself which gives veto rights to Pakistan and ties India's hands in the matter. It has 1 to 25 sub-clauses and Appendix. This Annexure prevents India to develop storages in the existing or future time.

Annexure-F.

Neutral Experts. Longish with sub-clauses (1) to (18) dealing with appointment, procedure and expenses.

Annexure-G.

Court of Arbitration. With sub-clauses from (1) to (29).

Annexure-H.

Transactional Arrangements. This is also a Treaty in itself. It is sub-divided into 10 parts with Appendix I, II, III & IV.

The Flaws in the Agreement

The water distribution in the IWT was largely a sell out for India besides the procedures to run the Treaty were highly prejudicial to us. The IWT is heavily loaded in favour of Pakistan as the Eastern Rivers are very small in volume and the Western Rivers are very large. Secondly, it imposes lot of restrictions on India on usage of Western Rivers, giving Pakistan the veto power over any proposal of India, especially for development of hydropower, storage and even routine maintenance. Third, it made India pay up to Pakistan for developing its inter-basin water infrastructure like dams, canals and siphons from the Western Rivers to the areas hitherto fed by the Eastern Rivers, while forbidding India to transfer such water from the Western Rivers to the areas of our Eastern Rivers. The IWT gave no rights of consumptive use to Ladakh and Jammu & Kashmir, though all three Western Rivers flow through the Union Territories and capped the consumptive usage to the level at the time of independence.

Under the IWT, current hydropower stations on the Western Rivers are not permitted to store significant amounts of water. They function more like RAM in a computer—offering high computing power but limited and temporary data storage. Unlike SSDs or HDs, these stations functioning like RAM have a storage capacity of only 1.2 to 3.6 MAF, a figure that varies based on the siltation levels in their associated structures, such

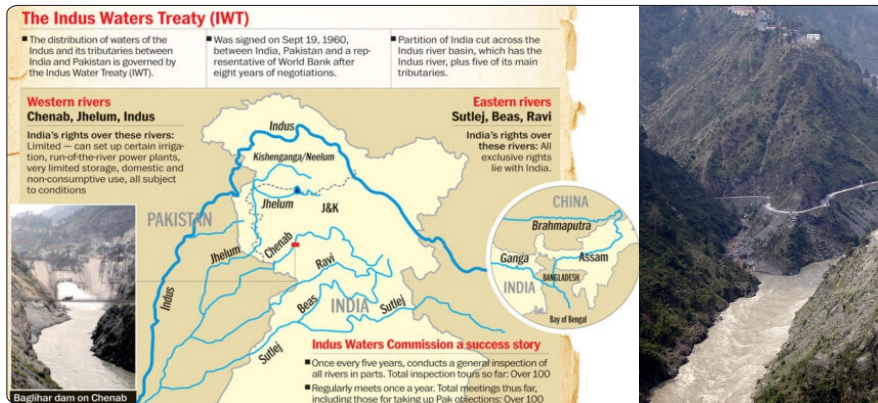
as dams. There is potential to expand this storage to provide consumptive water within the basin, specifically Ladakh, Jammu & Kashmir, and Himachal Pradesh.

Effects of Suspending the Treaty

The Government of India's decision to keep the IWT in abeyance from 23rd April 2025 onwards was most needed and is welcome. I strongly recommend that the Treaty be revisited and reviewed to protect the rights of India and to bring a sense of balance in the Treaty. India abdicated its rights as the upper riparian state in the Indus system of rivers, which no country ever does. Even Pakistan's close friends, namely China and Turkiye have not done this with their river basins.

The Indus water system is critically important to Pakistan's agriculture, contributing to 90% of its cultivation, with major crops including rice, wheat, cotton, and sugarcane. This reliance unequivocally demonstrates Pakistan's extreme dependence and vulnerability to the waters of the Indus River system. Pakistan's Punjab region, which largely dictates the national narrative, would face the most severe consequences. Its entire inter-linking water infrastructure, designed to transfer water from the Western Rivers to the densely populated and influential areas of the Eastern Rivers, would run dry. This would undoubtedly force Pakistanis to re-evaluate the hegemony of the Punjabis within their country. Should the IWT be revisited, Pakistan would face severe consequences, potentially plunging it into widespread hunger, poverty and starvation.

India stands to gain multiple benefits from revisiting the Treaty. Within the Western Rivers' basin, we



Left Image. IWT-scaled B-Tech Project (BTP Supervisor Manohar Khushalani, credit oneworld.org)

Right Image. Baglibar Dam on River Chenab, June 2008 (credit Vinayak Razdan, commons.wikimedia.org)

will be able to construct storage facilities and significantly increase consumptive use, including irrigation, across Ladakh, Jammu & Kashmir and Himachal Pradesh. This will usher in substantial economic development for these states. Additionally, we will fully harness the hydropower potential of these rivers, providing affordable electricity and reinforcing our commitment to green energy.

The assumption that the World Bank will intervene and the entire international community would not accept the Indian decision is not correct. Today, even the World Bank acknowledges that its role in the IWT is merely limited and procedural. It maintains that the allocation of water is ultimately a decision for the two sovereign nations involved. Mr. Ajay Banga, the President of the World Bank has recently said that the World Bank has no role to play as the IWT is a treaty between two sovereign nations, who have to mutually decide how to share their waters.

Should the Government of India agree to provide Pakistan with the same level of water, while retaining control over the procedure, the IWT will have to be differently negotiated. If the Indian Government remains steadfast and plays its cards strategically, we can bring Pakistan to the negotiation table with terms of reference decided by us. India must control

both the procedure and the scope of any review. We shouldn't be unduly concerned by Pakistan's threats that any alteration to the IWT would be considered "an act of war." As the upper riparian state in the Indus basin, India holds a significant advantage, controlling all the crucial levers.

What Needs to be Done?

In 1960, when the IWT was signed, technology was modest, and most water systems relied on gravity. However, there have been tremendous technological advancements since then. Significant leaps in the construction of dams, storage

facilities, canals, tunnels, underground pipelines, and pumping capacity will now enable India to fully utilize its just and fair share of the Western Rivers' waters.

In the short term, we have stopped sharing data with Pakistan as required under Article VI. This has already put Pakistan in a quandary. As regards the Eastern Rivers, we should ensure that we utilize 100% of our allotted share and take steps to that end. In the medium term, we should desilt our dams and other storage structures to increase their capacity. On our hydropower projects, we should undertake activities, which were held up due to want of approval from Pakistan. We should also go for maintenance, renovation and upgradation of all our canal systems on the Western Rivers.

In the long term, we should build storages on the Western Rivers and then take water through a network of canals, tunnels, underground pipelines and pumps within the basin and outside the basin for appropriate use. Further, we need to build all required hydropower plants on the Western Rivers to utilize the potential to the full capacity.

Drawing inspiration from China's South-North Water Transfer Project (SNWTP), which moves 30 MAF over 2900 kms from water-surplus southern basins to deficit northern ones, serving 5 -15 % of its population, India could implement a similar inter-basin transfer. This could involve diverting water from the Indus, Jhelum, and Chenab rivers southward through a mega-project or a series of up to six smaller canals. Such an arrangement would inevitably reduce water availability for Pakistan by approximately 25%. It would concurrently allow for the supply of 8-15 MAF to Punjab and Haryana, 1 MAF to Delhi, and the remaining water to Rajasthan and Uttar Pradesh.

Can China do a Tit-for-Tat to us on Brahmaputra?

Can China retaliate against India on the Brahmaputra River? My

straight forward answer is **NO**. The Brahmaputra is an enormous river; its flow at Dhubri, before entering Bangladesh, is 600 Km³, which is three times the volume of the entire Indus River system. This mighty river, fed by 128 tributaries, resembles a sea in certain areas. The river originates in China near Lake Manasarovar, where it's known as the Yarlung Tsangpo. River flows are typically sustained by two main sources: glacial melt and rainfall / snowfall. In the Indus River system, glacial melt accounts for 60% of the flow (from the Himalayas, Pamirs, and Karakoram Range), with the remaining 40% being rain-fed. Conversely, for the Brahmaputra, glacial melt contributes a mere 10%, with the vast majority (90%) coming from heavy rainfall in India's Northeast, averaging 10 metres per year. This heavy rainfall is the primary feeder of the Brahmaputra. Currently, India utilizes less than 5% of the Brahmaputra's waters, meaning any action by China would not prejudice our flow. Although China has constructed significant infrastructure to transfer water from the Yarlung Tsangpo to its arid northern regions, these efforts have not impacted downstream flows into India. We can therefore be assured that the Brahmaputra will remain unaffected, and we have no reason to be worried about it.

Conclusion:

Reclaiming our Water Rights

Revisiting and revising the IWT to align with India's national interest would be one of the most significant diplomatic achievements for the nation since independence. We must assert our rightful share of water and ensure that the IWT's procedures are fair and not prejudicial to our interests. Pakistan's current veto powers and unchecked influence within the treaty framework must be abolished. To address this, the entire Treaty, including its

Preamble, Articles, and Annexures, needs to be rewritten. As the upper riparian state, India must take the lead in driving this revision. With inter-basin water transfers from the Western to the Eastern Rivers and further south, our water availability in North and Northwest India will surge. This will ignite a new green revolution, fuel economic growth and reduce poverty.

Just as other nations worldwide utilize their water resources—such as the Hoover Dam in the USA, China's South-North Water Transfer Project, or Spain's inter-basin transfer from the Atlantic to the Mediterranean—India must secure the right to use the waters of the Western Rivers within their basin and transfer any excess water wherever needed. Our share must be clearly

defined, reflecting our contribution to the Indus River system.

Pakistan is indeed worried. Pakistan is already vulnerable and water-stressed, so any revision to the IWT would severely impact it, potentially turning large areas into desert without the disproportionate supply of water from the Indus River system. The long-held myth that the IWT is a "**Treaty in Perpetuity**" and "**Immutable**" has been debunked. In case the Government decides to grant some relief to Pakistan, we must secure and ensure Pakistan's firm commitment to unequivocally abjure violence and terrorism against India; as also give up its claim to Jammu & Kashmir formally and finally.



Sanjay Kundu, an accomplished Indian Police Service (IPS) officer of the 1989 batch, has excelled in law enforcement, governance, and international peacekeeping. He has held leadership roles with the State and Central Governments, as well as the United Nations. As the Director General of Police (DGP), Himachal Pradesh (May 2020 – April 2024), he spearheaded transformative initiatives that strengthened law and order, including the adoption of the New York Police Department's "broken windows" and "tipping point" policing strategies. Beyond policing, Kundu played a pivotal role in India's water resource management as Joint Secretary in the Ministry of Water Resources. He led the World Bank-funded Dam Project and his contributions earned him the UNESCO Award for Leadership in Water Resources. He has served as Chairman of the Brahmaputra Board; Chairman and Managing Director (CMD) of the Mini-Ratna PSU National Projects Construction Corporation (NPCC); Director General of the National Water Development Agency (National Authority for Inter-Linking of Rivers); and Mission Director of the National Water Mission (National Authority for Climate Change). Besides tenures as Principal Secretary to the Hon'ble Chief Minister of Himachal Pradesh, and Principal Secretary of key departments of the Government of Himachal Pradesh, he has been United Nations Police Commissioner for South Sudan. An alumnus of Harvard University, the National Defence College, and the University of Minnesota (where he was a Fulbright-Humphrey Fellow), he has been recognized with numerous honours. These include the President of India's Police Medal for Distinguished Service, Meritorious Service and Gallantry.



Sanjay Kundu, IPS

IRAN - ISRAEL

A Saga of Conflict and Elusive Peace

The relationship between Iran and Israel is characterised by a remarkable historical arc, transitioning from centuries of Jewish presence within Persian society and later a period of strategic alignment, down to the intense, multi-faceted hostility observed today.

*"It is not enough to win a war:
it is more important to organise peace" - Aristotle*

Introduction

In June 2025, we witnessed an escalation of tensions between Iran and Israel with unrelenting rhetoric by leaders of both sides vowing to destroy each other. I browsed the net to ascertain the root cause of such bitter enmity. While doing so, I came upon a few podcasts by some eminent "Iranian Jews" who laid bare some interesting historical facts of the dramatic shifts in their relationship with Iranians from ancient times to the modern times; from close co-existence and harmony during the Persian Empire to a long period of persecution under Islamic rule, which later saw an upswing under Imperial Iran; and finally the nadir of mutual bitterness and hatred seeking to destroy each other, as we see now in current times.

I reflected upon the philosophy as to why conflicts arise between countries across the globe. When the Iran-Israel 12-day War ended on 24 June 2025 with no tangible achievements



(credit Getty Images / wildpixel)



*Donald Trump, Benjamin Netanyahu and
Ayatollah Ali Khamenei - leaders of USA, Israel and Iran
respectively (Image credit India Today Israel - Iran War Uneasy
Truce podcast)*

by either side, it further spurred me to reflect whether hard power or even smart power strategies are adequate by themselves for conflict resolution and ushering in lasting peace. I took the Iran-Israel conflict as a base model for analysis and drew parallels with other significant interventions in their neighbourhood by major global actors to assess whether such approaches have genuinely resolved underlying issues and brought about lasting peace instead of prolonging instability, violence, and bringing about unintended consequences, which further generate new and more complex challenges.

Ancient Roots and Medieval Realities

Jews in Persia. The Jewish presence in Persia dates back to the 8th Century BCE when they were exiled by the Assyrians. Ironically, it was the Persian Emperor, Cyrus the Great, who with his benevolence and religious tolerance, permitted the Jews to return to Jerusalem and rebuild their temple, though a significant number chose to remain in Persia, indicating a relatively tolerant environment in Persia at that time. Iranian Jews, like Jews worldwide, hold Cyrus the Great in the highest regard as a Godly figure and a Liberator. In the Book of Isaiah, he is the only non-Jewish figure to be revered in the capacity of **“Yahweh’s Messiah”**. The Parthian Dynasty (3rd Century BCE) too showered religious tolerance and autonomy upon the Jews, attracting more Jews to migrate and settle down in Persia.

Islamic Expansion and Friction. After the Islamic conquest in 651 CE, the Jews and Christians saw relegation of their status to **“dhimmi”**, a lower-class position in society subjected to religious repressions and conversions. The same trend continued with the Safavid Dynasty (16th

Century CE) and the Qajar Dynasty (1796 to 1925 CE). However, in the late 19th and early 20th Century, the Jews saw increased access to education which facilitated upward mobility and professional freedom in Iran. This historical trajectory reveals how profound religious and political transformations directly influence minority communities, oscillating between periods of relative tolerance and severe persecution. That notwithstanding, it must be noted that while the Jews did face persecution / discrimination under Islamic rule, they were still accepted and accommodated in the Islamic environment. On the contrary, they suffered much more persecution and genocide at the hands of Christians and Europeans, right up to the end of the Second World War.

The Shah Reza Pahlavi Era (pre-1979). The mid-20th Century witnessed a remarkable shift. Prior to the 1979 Iranian Revolution, Iran and Israel maintained a cordial, albeit unofficial relationship. This alignment was driven

by mutual strategic interests, primarily a shared concern over Arab nationalism and the desire to counter balance the Arabs. Israel’s first Prime Minister, David Ben Gurion conceptualised the **“Periphery Doctrine”** aiming to forge alliances with non-Arabs (but mostly Muslim countries) like Turkiye, Ethiopia and Iran to encircle and counterbalance Arabs. Cooperation spanned various levels including trade, defence and intelligence sharing (Israel helped Iran to raise SAVAK, its secret police & Intelligence Service). Iran was among the first Muslim countries to recognise Israel. Economic ties centred around oil taken by Israel in exchange for defence equipment and weapons for Iran. But there was a fundamental ideological divide that predated even the 1979 Revolution, considering that the Shah of Iran refrained from establishing full diplomatic ties due to the Palestinian issue and pressure of Islamic clerics.

The 1979 Iranian Revolution. This revolution marked a seismic shift



Pro-government forces gesture during a funeral ceremony in the Sayyida Zeinab mosque on the outskirts of Damascus on April 26, 2017, for the victims of a bombing that targeted buses carrying evacuees from the besieged government-held towns of Fuaa and Kafraya. (Photo by LOUAI BESHARA/AFP via Getty Images)



Image depicting Iran's Revolution on Quds Day 03 June, 2024 (credit presstv.ir)

in the geopolitical landscape of the Middle East. The overthrow of the Shah and establishment of an Islamic Republic under Ayatollah Khomeini ushered in an era of profound ideological change. Israel was declared an “**enemy of Islam**” and “**The Little Satan**” (with US designated as the Great Satan). This anti-Zionist stance was deeply embedded in official rhetoric, military programmes and state sponsored education. Iran soon severed all diplomatic and commercial relations with Israel, whose embassy was handed over to the Palestine Liberation Organisation (PLO), symbolising Iran’s new alignment. However, despite the overt hostility, Iran and Israel still continued with their strategic defence relationship during the Iran-Iraq War (1980-88), with Israel giving various forms of military aid to Iran in exchange for oil. This demonstrates that even extreme ideological shifts do not always eliminate opportunistic cooperation when strategic national interests so dictate.

Power Rivalry and Alliances Iran’s Axis of Resistance: Proxies.

The ideological shift in Iran following the revolution coupled with the dissolution of the Soviet Union and weakening of Iraq by the 1990s, created a new geopolitical landscape and a new arena for conflict. Iran developed a sophisticated strategy of supporting non-state actors across the Middle East to project power, counter Israeli influence, and advance its regional agenda, particularly championing the Palestinian cause. The components of Iran’s Axis of Resistance were diverse and strategically positioned. This strategy, also dubbed as the “**Ring of Fire**” aimed to create a deterrent perimeter around Israel and to impede the expansion of the Abraham Accords, which sought normalisation between Israel and the Arab

States. The proxy groups were firstly, **Hezbollah (Lebanon)**, a Shiite political party and militant group formed in 1982 with Iranian funding to resist Israel’s invasion of Lebanon; secondly, the **Hamas** and **Palestinian Islamic Jihad** to counter Israel in the Palestinian territories; thirdly, the **Houthis** in Yemen, another Shiite group involved in prosecuting Iran’s broader regional strategy; and lastly, the **Shiite militias in Iraq and Syria** to challenge US interests, as also oppose Israel. Despite all odds and sanctions, Iran has persisted in arming and training its proxy groups through its Quds Force – the international arm of the Islamic Revolutionary Guard Corps (IRGC).

Israel’s Reverse Periphery Doctrine. In response, Israel developed a “**Reverse Periphery Doctrine**”, to forge alliances with major Arab countries, including those with official peace treaties like Egypt and Jordan, and fostering cooperation with Gulf States such as Saudi Arabia, the UAE and Oman. The core logic was “**My enemy’s enemy can be my friend**”. These two rival strategies, therefore, marked a profound transformation from a bilateral state-level conflict to a complex, region-wide, multi-front struggle. Iran’s Axis of Resistance leveraged sub-state actors to achieve asymmetric deterrence and regional influence, while Israel’s **Reverse Periphery Doctrine** countered by forging alliances with former adversaries. This dynamic highlights how the dissolution of traditional state-centric conflicts into hybrid warfare, involving both state and non-state actors, complicates resolution efforts and entrenches regional instability, making traditional diplomatic solutions more challenging to implement.

Escalation to Direct Confrontation and the Nuclear Imperative Nuclear Threat. From 1957 onwards, Iran’s nuclear programme

gradually emerged as a central and increasingly urgent driver of the conflict. This programme is perceived by Israel as an existential threat. Consequently, Israel has advocated for sanctions and military actions to prevent Iran from acquiring a nuclear status. The International Atomic Energy Agency (IAEA) repeatedly found Iran in non-compliance with its non-proliferation obligations, leading to UN Security Council resolutions and imposition of crippling economic sanctions.

Covert Operations and Asymmetric Warfare. In an effort to disrupt Iran's nuclear progress and broader regional influence, Israel extensively employed covert operations and asymmetric warfare tactics. A significant wave of assassinations targeting Iranian nuclear scientists and senior Generals began in 2010, and has continued till date. Beyond assassinations, cyber warfare and sabotage have also been key components of Israel's strategy, for example the Stuxnet computer worm developed by the United States and Israel which caused significant damage to centrifuges at Iran's Natanz facility. However, these actions, while causing setbacks, did not resolve the nuclear issue. Instead, they contributed to a cycle of retaliation and appear to have increased Iranian motivation to develop deterrent capabilities.

Israel's Actions Against Iran's Proxies and Clashes. Apart from the covert operations, the conflict has been characterised by a series of direct hard power skirmishes. These include Israel's 1982 invasion of Lebanon and the 2006 Lebanon War, which spurred Iran to keep propping up Hezbollah to resist the Israeli occupation. Israel also engaged in multiple wars with Palestinian factions in and around the Gaza strip in 2008-2009, 2012, 2014, 2021 and presently since 2023. Since

the Hamas War began in October 2023, the situation has continued to deteriorate, with the Hezbollah and the Houthis pitching in from Lebanon and in the Red Sea area respectively. Finally, the Syrian Civil War also served as a major battleground for direct and indirect confrontation between Iran and Israel. Israel conducted numerous air strikes in Syria specifically targeting Iranian and Hezbollah assets, viewing their presence as a major security threat. The proxy war escalated significantly in 2024 to a series of direct exchanges between the two countries. It all started in April 2024 with an Israeli air strike against an Iranian consular building in Damascus, Syria, killing senior Iranian officials. Iran retaliated with an unprecedented direct missile / drone attack, the first ever on Israeli soil. Israel then followed up with assassination of Hamas leader Ismail Haniyeh within Iranian territory and then the killing of Hezbollah leader Hassan Nasrallah. Iran kept retaliating with symbolic missile attacks. By December 2024, Israel's

decimation of Hamas and Hezbollah leadership, coupled with the downfall of the Assad Regime in Syria, had considerably weakened Iran's Axis of Resistance. The conflict escalated further in June 2025, when Israel launched a surprise aerial cum missile attack targeting key Iranian military and nuclear facilities including targeted assassinations of top military leaders and nuclear scientists. The United States subsequently joined the offensive, striking three Iranian nuclear sites at Natanz, Fordow and Isfahan with bunker-buster bombs. Iran retaliated with missile barrages on Israeli cities and military sites, causing casualties and damage. Iran also launched a missile attack on a US base in Qatar, the first of its kind. There has been a cessation of hostilities since 24 June 2025, and that is where the situation stands today.

Analysis of the Conflict

So, what transformed the relations that had endured more than two millennia of peaceful coexistence into



*A member of the Hashd-Al-Shaabi flashes the 'V' sign in Hatra, Iraq in April 2017
(Photo Ahmed Al- Rubaye, AFP)*



Photo released by the Iranian Presidency Office, President Masoud Pezeshkian, second right, listens to head of Atomic Energy Organization of Iran Mohammad Eslami, in Tehran, Iran, on April 9, 2025 (AP)

sudden hatred and non-tolerance between the two communities and between Iran and Israel? It was primarily the religious divide that had been initiated way back in the 7th Century CE with the advent of Islam. The divide kept festering on and off for more than a millennium, and then was triggered by the 1979 Iranian revolution, which prioritised anti-Zionism and support for the Palestinian cause as central tenets of its foreign policy. This, combined with Iran's nuclear ambitions and regional power projection led Israel to view Iran as her foremost existential threat.

However, there is another underlying cause and that is the **“personality factor”**. Major conflicts have often been triggered by one powerful personality; and in this case, it was Ayatollah Khomeini. Hypothetically, had Ayatollah Khomeini not been there on the scene, leading a zealous cause, and had the Shah ruled Iran with more compassion for the public and with lesser corruption, perhaps the Iranian Revolution may not have taken place. Once an ideology has been embedded deep into society, the

under attack these days.

As regards Israel's claims of victory, it is true that Iran's **“Axis of Resistance”** was severely degraded with both Hamas and Hezbollah's capabilities significantly weakened, even leading to the fall of the Assad Regime in Syria. This perceived weakness perhaps emboldened Netanyahu and Trump to go in for strikes against the nuclear assets of Iran. The military operations against Iran's nuclear programme, i.e. Israel's **Operation Rising Lion** and the **US Operation Midnight Hammer**, were reported to have caused *“massive damage”* to Iran's centrifuge enrichment programme, setting it back significantly for a *“long time”*. However, the UN nuclear watchdog indicated that the programme was set back by a *“matter of months”* only, rather than being *“obliterated”*.

Despite significant damage and decapitation strikes against its leadership and infrastructure, Iran has demonstrated utmost resilience and adaptation. The assassinations of Iranian nuclear scientists too have not led to any concrete results in halting or stalling Iran's nuclear programme. The 30 commanders and 19 nuclear scientists killed by Israeli strikes did not include the leading religious figures, who, more than commanders, embody the Iranian Revolution. Neither did the attacks expose critical cracks in the regime's cohesion or spark the emergence of an alternative leader or mobilise widespread opposition. Iran has retained its nuclear weapons capability and critical minerals, indicating a capacity to rebuild its programme. The military actions have inadvertently strengthened Iran's resolve and pushed them towards more extreme measures to accelerate their nuclear weaponisation for deterrence.

Israel's military success has thus not translated into a cessation of hostilities or genuine peace, but rather a shift in the conflict's dynamics.

ecosystem continues even in the absence of the pioneering personality, and therefore, even a strategy of regime change may not eliminate the deep-rooted cause.

Outcomes of Violent Clashes

The extensive use of violence in the Iran-Israel conflict has yielded complex and paradoxical outcomes failing to achieve lasting peace or resolve core issues. Despite claims of success by both sides – with Israeli Prime Minister asserting the rolling back of the Iranian threat, and Iran's Khamenei announcing *“victory”* – the unfortunate part is that the conflict persists. A fragile ceasefire is in place, but fighting continues with Iranian proxies, namely Hamas and the Houthis who are

Therefore, in complex, multi-actor conflicts involving non-state proxies and deeply entrenched ideological grievances, military victory through hard power often merely degrades an adversary's capacity rather than eliminating their will or resolving the fundamental issues. The conflict only shifts its form or intensity perpetuating a cycle of violence and instability rather than achieving lasting peace. It is paradoxical that in this instant case, the application of hard power to prevent proliferation may have incentivised the very proliferation it sought to avert!!

What about the international economic sanctions? These sanctions against Iran have set them back economically, lowering their GDP and impacting living standards, but have failed to break the resolve of the nation; have failed to curb their nuclear ambitions, as also their regional behaviour remains unaltered. The imposition of sanctions has also spurred Iran to develop sophisticated circumvention strategies, deepening alliances with non-Western powers and fostering illicit trade networks. Furthermore, economic hardship has contributed to a “rally-around-the-flag” effect, enabling the regime to consolidate power by projecting external pressure and stimulating a nationalistic struggle, thereby averting widespread public dissent.

The Humanitarian Situation. Global geopolitics and national rivalries have resulted in a lack of compassion and concern for human lives and humanity. Besides the 2025 Iran-Israel War, the military clashes that Israel has fought against Iran and its proxies, particularly the ongoing Israel-Hamas war, have had severe humanitarian consequences. The Gaza War itself has claimed around 63000 lives, mostly innocents, with no end in sight. If one were to calculate all types of casualties (fatal / non-fatal)

in this ideological struggle ever since Israel came into existence in 1948, the casualty figures will be hard to digest, let alone the human displacement in the region and extensive damage to infrastructure and quality of life. Unfortunately, the problem shows no sign of resolution, with Netanyahu threatening to evict Palestinians entirely from the Gaza Strip, as also planning a major offensive into Gaza City!

Effects in the Neighbourhood

Iran exercises its influence and power projection through Iraq and Syria, prompting Israel to view these two countries as foes. Interestingly, after the 1979 Revolution, Israel had supported Iran in the war against Iraq because at that time, Iraq was perceived as the more potent threat to Israel. Iraq and Syria are the connects between Iran and Israel, who do not share a land boundary.

The Iraq War. The overthrow of

Saddam Hussein's regime in 2003 following the US-led invasion of Iraq, while achieving the immediate objective, created a profound power vacuum, which remains till date. This vacuum fuelled a prolonged insurgency against coalition forces and the newly established Iraqi Government. It also exacerbated sectarian tensions, leading to a devastating civil war between Iraq's Shia majority and Sunni minority, resulting in widespread displacement and a severe humanitarian crisis. However, the most critical consequence was the emergence of Islamic State in Iraq Syria (ISIS); in other words, the application of hard power in Iraq by the Western global players inadvertently increased global terrorism, becoming a “breeding ground” and “magnet” for a new generation of terrorists. And most importantly, it opened the Arab world to an unprecedented level of Iranian infiltration and influence that set up the



Operation Midnight Hammer. How USA bombed Iran's 3 nuclear facilities (credit ndtv.com)



Iran and its proxies. (credit <https://www.heartland-initiative.co.il/a-strategic-blueprint-for-disarming-irans-proxies-and-holding-tehran-accountable>)

Iraqi Shiite Militia as their proxy. A 2019 US Army Study concluded that **“an emboldened and expansionist Iran appears to be the only victor of the war”!!**

Syria (2011 to date). Syria is another classic case study which has shown how widespread and multi-directional application of military power by numerous internal and external actors (including the West and Russia), with divergent and often irreconcilable objectives, creates a **“hurting stalemate”**, where no single actor achieves outright victory. The conflict lasted almost 14 years, leading to over 650000 deaths and a major refugee crisis, displacing almost 13 million citizens. Syria’s economy, once on a promising trajectory, experienced a dramatic reversal, and most importantly, the country became increasingly isolated. Like Iraq, the power vacuum and prolonged conflict facilitated the rise and expansion of extremist groups like ISIS. Here too, Iranian backed Shiite militias became active as in Iraq. While the Assad Regime was overthrown in December 2024 and a transitional

government formed, large-scale fighting has ceased, but only to be replaced by new military actions, such as Israel’s invasion of Southern Syria and the start of an Assadist insurgency. A stable, unified or peaceful Syria remains elusive, and what is seen is a fragmented landscape with ongoing foreign occupations and new internal conflicts.

Regionally, all these confrontations have profoundly destabilised West Asia, courtesy super power geopolitics who tried to impose their will through hard power, and messed up the situation with no sound conflict resolution strategy.

Is Smart Power the Solution for Conflict Resolution?

Smart Power is defined as the strategic integration of hard (coercive) and soft (attractive) power. It underscores the necessity of a strong military, but also invests heavily in alliances, partnerships, diplomacy and institutions at all levels to expand one’s influence. Many analysts quote numerous examples, where smart power has been leveraged successfully to achieve conflict resolution objectives. Some prominent examples are the end of the Cold War, the Marshall Plan for European recovery (where hard power was used in the form of economic aid), the Camp David Accords resulting in Israel-Egypt Peace Treaty of 1979 and the Dayton Accords to end the Bosnian War.

The moot point is that smart power can be effective in achieving specific diplomatic objectives and halting immediate hostilities, but its success is complex and multi-faceted. It often involves **intricate trade-offs**, can lead to **unforeseen long-term consequences**, and fundamentally relies on **sustained political commitment and adaptability**. If one were to examine each of the above quoted examples, barring the end of Cold War that held out, all other cases had serious spin-offs and unintended consequences.

It is also quoted that the Iran Nuclear Deal (Joint Comprehensive Plan of Action - JCPOA) of 2015 was a success, and that it was brought about by correct use of smart power. Iran had agreed on paper to constrain its nuclear programme in exchange for sanctions relief. Smart Power was used by way of hard power elements (economic sanctions, financial pressure and frozen assets), duly integrated with soft power elements (multilateral diplomatic negotiations, incentives for compliance and international inspections). The deal did not last. Donald Trump, in frustration with lack of progress on ground,

withdrew from the deal in 2018, re-imposing sanctions, but Iran continued unabated with its nuclear programme. Long-term sustainability of smart power in conflict resolution is highly susceptible to political volatility and lack of an enduring commitment and political will. Hence despite its demonstrated efficacy, the application of smart power in international conflict resolution is also not without challenges and inherent nuances that can limit its success or lead to unintended consequences.

Future Prognosis

Post the latest round of the conflict in June 2025, some undeniable facts stand out loud and clear. The Iranian Revolution survives. The Iranian leadership may have indirectly benefitted by way of a stronger resolve amongst the people. The Iranian people, under attack, found a new nationalist voice, which the leadership was quick to exploit as an indication of national unity, and the regime has retained control of its key instruments of power, including the IRGC.

Unlike Iraq, Syria and Libya, in Iran, there is no widespread opposition, or armed internal opposition groups backed by external powers, neither is there any armed intervention of foreign powers. It also lacks a credible opposition figure to whom external support could be given. Iran's nuclear programme has survivability, and cannot be eliminated by a few strikes, especially with the precautions that Iran had taken before the strikes. Iran will discreetly continue with its nuclear ambitions, not in a "dash" for the bomb, but with skilful craft and finesse.

Internally, Iran will possibly take a more inclusive approach towards its people, adopting the theme of nationalism in resisting external aggression. This will, however, not end the corruption,

economic crises and authoritarianism that are the roots of Iranians' grievances, but may be enough to discourage broad mobilisation against the regime.

Israel understands Iran's ambitions and methods, and will need to preserve both aerial dominance and intelligence penetration of Iran indefinitely and be permanently prepared to strike. On the other hand, Iranian leadership may de-escalate in the short term, but that will not be at the expense of the Revolution's cardinal principle of resistance to Israel. Israel may have won temporary security in its campaign.

So, in the ultimate analysis, the current trajectory points to a volatile adversarial relationship with a high probability of further escalation. The limitations of hard power in conflict resolution necessitate a paradigm shift

towards diplomatic engagement, a concerted effort to address underlying grievances, and a "smart power" approach. However, given the deep ideological divides, entrenched positions, and the existential stakes for both sides, prosecution of any re-oriented power strategy for conflict resolution will remain a challenging call.

Of course, one can only hope that one fine day, visionary and popular leaders on either side take a "reverse-ideological plunge" to usher in lasting peace in this war-torn region and put all Power Strategies to rest!! The Book of Isaiah says that God had directed Cyrus the Great to allow the Jews to return to Israel – perhaps God may intervene again for the sake of peace & stability!!



Lieutenant General RS Salaria, PVSM, VSM (Retd) was commissioned into 7 Field Regiment (GAZALA) in June 1980, the regiment which he later commanded. A graduate of Long Gunnery Staff Course and the Defence Services Staff College, Wellington, the General Officer has also attended Higher Command Course at Army War College, Mhow and National Defence College at Delhi. His staff appointments include exposures to operational & logistical management at various Headquarters. The General Officer, apart from an instructional tenure in School of Artillery, was also a UN Observer in Angola and the Defence Attaché in Tajikistan. The General Officer commanded an Artillery Brigade and Artillery Division. The General served as Commandant School of Artillery till his retirement in March 2020.



Lt Gen RS Salaria

OPERATION SPIDER'S WEB

REDEFINING ASYMMETRIC WARFARE

Operation Spider's Web, is a striking example of how asymmetric warfare is evolving - especially when the weak become emboldened to take high-risk, high-reward actions demonstrating that the concept of strategic depth with the weapon systems of today, is a myth.

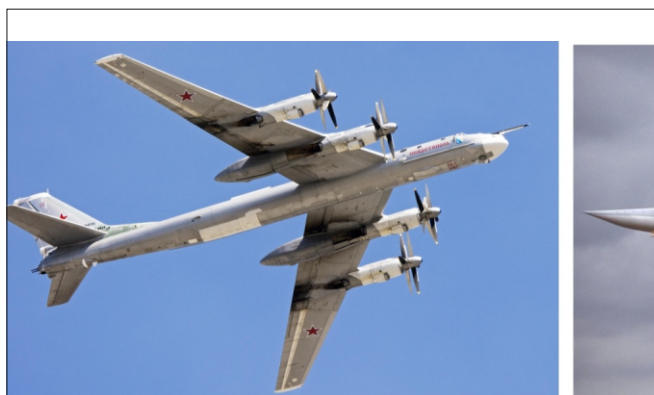
Ukraine Strikes Deep

Operation Spider's Web was a high-profile drone strike deep (upto 4000 kms) inside Russia carried out on 01 June 2025. The strike was led by Sluzhba Bezpeky Ukrayiny or Ukraine's Security Service (SBU). SBU is Ukraine's principal internal security and counterintelligence agency. It conducts counterintelligence operations, combats organized crime and terrorism and protects state secrets and national security. Notably, it is subordinated directly to the President of Ukraine, is staffed by military personnel and operates specialized units like the Alpha Group (Special Forces).

The operation was planned over 18 months and strike drones were smuggled into Russia in trucks camouflaged as standard cargo loads. The attacks, using 117 remote-controlled First-Person View (FPV) drones, struck 41 strategic Russian Air Force aircraft at four locations and destroyed at least 13 while damaging others.

Uniquely executed, the drones were launched from inside Russian territory after being transported from Ukraine in wooden cabins mounted on flatbed trucks and assembled in Russia on the sly. The ready to launch drones were smartly placed inside these wooden structures and moved close to the target areas disguised as commercial goods. The flatbed trucks had been hired and even the drivers were unaware of the contents. Once in place, the

Asymmetric warfare refers to a type of conflict where opposing forces differ significantly in military power, strategy, or resources-and the weaker side uses unconventional tactics to exploit the vulnerabilities of the stronger side.



Tu 95 MS Bomber



Tu 22 M3 Bomber



Tupolev Tu - 160



Beriev A-50

(Above images are from en.wikipedia.org and commons.wikimedia.org)

remotely operated roofs of the cabins were retracted and the hunters freed to target their unsuspecting prey, reminiscent of modern-day *Trojan Horses*!

Notably, no Ukrainian personnel were harmed as agents who helped assemble the drones or enabled technical and communications support were evacuated prior to drone launches. **Operation Spider's Web** establishes a template for deep strategic strikes at unsuspecting and underprepared target areas using adversary territory as a launch base. This methodology was partly replicated in Operation Rising Lion, wherein Israel targeted Iran's military leadership, nuclear assets and critical infrastructure on 13 June 2025. Thus, in a vast country like India surrounded by hostile elements, Rear Area Monitoring and Security assumes significant importance at all times.

Strategic Objectives

The main objectives of **Operation Spider's Web** based on the effects, appear to have been to severely damage Russia's long-range bomber capability, for which four aircraft types were targeted:

- **Tupolev Tu-95 (Bear) and Tupolev Tu-22M3 (Backfire)** - Both used for missile strikes on Ukrainian cities. They carry Kh-101, Kh-555, Kh-22, and Kh-32 cruise missiles designed for long-range precision strikes.

- **Beriev A-50 (Mainstay)** - Similar to AWACS, the A-50 functions as a flying command post and radar station. Its extensive rotating radome enables it to detect aircraft, cruise missiles, and other aerial threats from hundreds of kms away.

It therefore serves as a crucial force multiplier by coordinating all air actions. This has been an extremely valuable asset for the Russian Air Force.

The strategic objectives were also to demonstrate Ukraine's deep-strike

capabilities using unconventional methodology integrated with drone technology, thereby, undermining Russia's sense of strategic depth, exposing vulnerabilities in rear-echelon defences, and reshaping the psychological landscape just prior to the peace talks that had been scheduled on 02 June at Istanbul. The operation psychologically and materially disrupted Russian air power resources across the airbases.

The Bases Targeted

As highlighted earlier, there were no Ukrainian boots on the ground, just the telling use of technology, well-coordinated timing, and comprehensive analysis of the terrain, the targets and the operating environment. 117 FPV drones targeted four Russian airbases as under:

- **Belaya Air Base in Irkutsk Oblast, Siberia** (4000 km from the frontline). In addition to strategic bombers, it hosts the MiG-31K carrying Kinzhal missiles.

- **Olenya Air Base in Murmansk Oblast in the Russian Arctic.** It functions as a forward staging base for Arctic and Atlantic missions.

- **Dyagilevo Air Base in Ryazan Oblast.** Functions as a rear-area bomber base with training and refuelling capabilities. This dual role amplifies its strategic importance far beyond that of a conventional air base.

- **Ivanovo Air Base in Ivanovo Oblast.** Acts as a nerve centre for airborne command and control. Supports strategic bomber coordination and missile targeting.

The pilots of the FPV drones, operating from Ukraine, targeted vulnerable points such as fuel tanks in the wings with the limited load of explosives that a FPV generally carries, leveraging the precision provided by the drones.

The Drone Arsenal

Ukraine deployed a multi-layered drone strike force combining FPV



A FPV-drone struck military plane Tu-95 at Russia's Olenya airbase during the attack (photo from ssu.gov.ua and commons.wikimedia.org)

kamikaze drones, AI-guided autonomous systems, and long-range delivery platforms. The **Osa Drone - Ukrainian for “Wasp”** is an indigenous FPV quadcopter. Its payload was dual charges of 800 grams each (Shaped Charge and High-Explosive), which were designed to burn through aircraft fuselage and trigger internal explosions. A standard explosive then detonates outwards in all directions. The flight time of the drones was approximately 15 minutes and top speed 150 km per hour.

A Shaped – Charge High - Explosive, uses a specifically shaped casing to focus the explosive energy, (a V or U-shape made of a soft metal like copper). Upon detonation, the explosive core collapses the metal liner onto itself, forming a high-velocity jet of molten metal. This jet can travel at several kms/second and has immense penetrating power, acting like an industrial cutting torch or a plasma cutter. The key purpose of this warhead is not to create a large blast, but to cut or sever the target along a line.

Communications for **Operation Spider’s Web** were designed to tap into the existing civilian infrastructure. Active guidance by operators / pilots was kept to the minimum with reliance on AI and autonomy in flight, in effect, minimising interference by Russian SIGINT. Ukrainian operatives inside Russia used secure communications to coordinate logistics, including the movement of drones camouflaged inside the cabin cargo, by riding on Russian Telecom Networks using burner phones or anonymous SIMs. Civilian Russian truck drivers, unaware of the mission, received instructions on mobile phones to park at

designated locations and activate drone release mechanisms, oblivious of the intent or the effect. Possibly, the cabins equipped with batteries and solar panels could have used satellite uplinks, enabling remote activation of the drones.

Each drone was equipped with multiple types of communications to ensure resilience, autonomy, and redundancy, encompassing analog video transmission for real-time piloting and encrypted digital links for command and control. The drone pilots coordinated the attack from undisclosed combat control points, using encrypted channels to manage drone swarms in real time.

In addition, embedded autopilot systems with AI-driven trajectory planning allowed drones to operate semi-independently, reducing reliance on continuous operator input.

AI-Powered Autonomous System

In addition to the truck delivered FPVs, a Mother Drone system (developed by Brave1 Tech Cluster (Ukraine’s defence innovation platform), that carries and deploys two FPV strike drones up to 300 km behind enemy lines using Visual-inertial navigation and LiDAR-based terrain mapping is likely to have been used. With no GPS dependency, it is immune to jamming and spoofing. Once launched, the system can identify, navigate to, and strike targets without human intervention.

AI-based target recognition enabled these drones to autonomously identify, classify, and engage targets with minimum human inputs. At the core of this capability are machine learning (ML) and deep learning algorithms trained on vast datasets of images and sensor data. Some drones were trained to identify and strike fuel tanks on aircraft for maximum damage, which they effectively did.

Extensive use of technology allowed the pre-programmed FPV drones to autonomously reach their designated targets. However, from videos released by SBU, at some time during the approach human pilots were seen to remotely intervene and guide the drones towards exact weak points on the aircrafts as planned, ensuring desired effects.

Notably, while Ukraine stated that they launched 117 Drones, OSINT (Open-Source Intelligence) analysts confirm only 41 FPV drone strike videos in the target areas are available. This indicates that some of the drones probably lost contact with the base station. Such losses are always likely and adequate reserves would have been planned for these operations. Redundancy in technology and communications remains a strategic necessity for the survival of plans.

The Impact - Financial and Strategic

The drones specifically targeted exposed aircraft parked in the open, making them easy targets for precision strikes. The engine compartments and fuel tanks were struck, maximizing the chance of detonation and destruction. On the A-50 aircraft, the radar domes were

precisely hit. In the maintenance and repair zones, at Dyagilevo Air Base, aircraft undergoing repairs were hit, compounding damage and delaying recovery

An **Independent Damage Assessment** is as shown in the adjacent table.

Ukraine claims that the strike damaged / destroyed 41 aircraft and estimates \$7 billion in losses to Russia's strategic aviation. The strike damaged Russia's long-range strategic bomber fleet, some of a vintage that prevents repair or replacement, thereby crippling their strategic reach.

	Destroyed	Heavily Damaged	Attacked – Damage Unknown
TU-95	7	1	2
TU-22M3	4	2	6
A-50			2
AN-12	1		
Total	12	3	10

Key Takeaways

In modern warfare, the battlefield has no boundaries and can be shaped as per identified vulnerabilities. There is no FLOT – Front Line of Own Troops, just a web of hybrid tactics, psychological manoeuvres, and technological infiltrations. Complacency will prove costly and strategic depth is a fallacy. Strategy, planning and preparedness are essential but bold and audacious execution is difficult to defend against, hence security forces must master the fundamentals, and execute out of the box plans.

Surprise and deception remain crucial factors in modern warfare. Though difficult to achieve, these are essential in a world saturated with data, sensors, and satellite visibility. To achieve surprise, the Ukrainians assembled the drones in rented warehouses and launched them from civilian trucks blurring the line between military and civilian identities - thus citizens have to be aware and alert on issues of internal security. Human suicide bombers are a relic of the past, and erstwhile body switches are now being pressed thousands of miles away on 'suicide drones'. Everything that needs to be secured must be secured.

Propaganda and sabre-rattling are tools of perception warfare meant to blur the truth, twist the narrative, and create just enough doubt to stall decision-making. Victories emerge from the shadow of the Noise.

Finally, drones are rewriting

operational art and being used in wildly creative ways. In the future we are likely to see more disruptive technologies at work, with narratives difficult to envision now. Countermeasures will require layered technology and multi domain shields and doctrines.



Major General Harvijay Singh, SM (Retd) is a third-generation soldier, and his two sons are also Army officers. An alumnus of National Defence Academy, Pune, he was commissioned in the Corps of Signals in 1981. He is a specialist trainer and has trained soldiers in military training establishments at various stages of his career. As the Chief Instructor of the Military College of Telecommunications Engineering, he was strategizing issues and training professional soldiers on Communication Networks, Cyber Security and Electronic Warfare. A prolific writer, he contributes regularly to various professional journals. He has written three books related to Military History and Leadership and is the recipient of the prestigious 'Scholar Warrior Badge'.



Maj Gen Harvijay Singh

RADIANT SAMBANDH

OUTREACH TO WIDOWS AND WARDS

The Government and the Army have many welfare schemes and grants for widows and wards of soldiers who die in operations or in harness. Very often, many of the entitled beneficiaries are unaware of these incentives, and continue to live primarily on the pension and medical benefits provided. Several widows are informed about education facilities and support, but are not well versed with the processes to avail such benefits. **This report elucidates steps taken by the Radiant Group to assist.**

The Idea and the Spirit of the Initiative

Radiant Sambandh is a welfare project of the Radiant Group of Companies. This is a **“Taking Care of our Own”** initiative by the founder, Colonel David Devasahayam (Retd), CMD, Radiant Group of Companies. To lend weight to the initiative, Lieutenant General Devraj Anbu, PVSM, UYSM, AVSM, YSM, SM, (Retd), former Army Commander Northern Command and former Vice Chief of Army Staff has joined the initiative as its chief mentor. Radiant Sambandh primarily works to educate the *Next of Kin (NOKs) of Physical Casualties (PCs) of the Army on the welfare schemes and financial grants provided by the Ministry of Defence and the Directorate of Indian Army Veterans (DLAV);* and assists them in availing these benefits.

Before you get confused by *‘military jargon’*, let me just throw light on some of the terms. A PC is a soldier who dies while in service in a peace or a field area but is not classified as a Battle Casualty. The Army has many effective welfare schemes which are not availed by many NOK of PCs for multiple reasons including lack of awareness and language comprehension in filling mandatory forms resulting in



documentation errors and rejection. Radiant Sambandh has mainly reached out to PCs as Battle Casualties receive special attention from the Army and get more financial and Government support in comparison to PCs.

The Journey

The Radiant Sambandh project commenced operations in June 2022. Utilizing the extensive spread and reach of the Radiant Cash Management Services (RCMS) door step banking structure and with ground surveys, Radiant Sambandh was able to connect and interact with thousands of NOK of PCs all across India. Radiant Sambandh acts as a facilitator, enabling the widows and wards to avail entitled grants. In June 2023, Radiant Sambandh signed an Memorandum of Understanding with the Adjutant General's Branch (AG's Branch), with Lieutenant General Bansi Ponappa, the then AG acknowledging the yeoman service being provided by the Sambandh initiative. Four help desks, one each at Chennai, Delhi, Lucknow and Guwahati, were established, with each Help Desk manned by an Operator with a Computer, a mobile phone, and an updated data bank of NOK of PCs in his defined region. Each help desk is supervised by a veteran officer.

Method of Operations

The task of a Help Desk is manifold and encompasses maintaining constant communication with NOK in the region, making them aware of the welfare schemes of the Army being run by the DIAV, as also approaching the Virangana Seva Kendra (VSK) of DIAV to resolve pension and SPARSH-related issues. It is indeed a matter of satisfaction that the VSK of DIAV is very effective and responsive once adequate details of the case are forwarded to it. On average, each Radiant Sambandh

Help Desk interacts with 50-60 NOK on a daily basis. Details of Radiant Help Desks are tabulated below.

Mail ID and WhatsApp Contact of Radiant Help Desks

Help Desk (HD)	Location	WhatsApp	Mail ID
HD-1	Chennai	7305669111	helpdesk1@radiantsambandh.co.in
HD-2	Delhi	7305901555	helpdesk2@radiantsambandh.co.in
HD-3	Lucknow	7305061578	helpdesk3@radiantsambandh.co.in
HD-4	Guwahati	9401523365	helpdesk4@radiantsambandh.co.in

DIAV Grants

DIAV Schemes are open for all categories of Physical Casualties, including Suicide Cases. There is no bar on the number of children applying for the grant. There are no qualifying criteria on the percentage of marks scored, other than applicants needing to have passed in all subjects. There is a common application form for applying for the education grant and widows higher education and computer grant. The documents required are the application form countersigned by the Principal of the school/college, a photostat copy of mark-sheet and fee receipts in original of the class passed and a cancelled cheque of the beneficiary's bank account. The latest WhatsApp mobile number of the applicant has to be indicated to enable communication and contact. It is worth highlighting the education related grants provided by DIAV for wards and widows of PCs, tabulated below.

Welfare Schemes	Standard	Amount
Education Grant Class 1 onwards, including Suicide Cases	<ul style="list-style-type: none"> Class I to VIII Class IX to XII Graduation Post-Graduation Professional Courses 	Rs 10,000/- Per Annum Rs 14,000/- Per Annum Rs 20,000/- Per Annum Rs 25,000/- Per Annum Rs 50,000/- Per Annum
Widow Higher Education Widows of Soldiers who die in harness	<ul style="list-style-type: none"> Graduation Post-Graduation Professional Courses 	Rs 20,000/- Per Annum Rs 25,000/- Per Annum Rs 50,000/- Per Annum
One-Time Computer Grant For Wards and Widows (pursuing Graduation and above)	May be claimed after passing class X by wards and graduation by widows.	Rs 35,000/- One Time Grant
Marriage Grant	Marriage Grant for the daughter's marriage and the remarriage of the widow of PC fatal.	Rs1,00,000/- one time

Must Do - Unit Level Actions

When a soldier suddenly passes away while in service, there is inevitable despair and gloom, with the NOK understandably being in shock. This vacuum takes a long time to fill. It is thus the responsibility of the parent unit to maintain regular contact with the NOK of a PC. Hence, units should maintain a database of NOK of PC and their updated mobile number and email ID and contact the NOK at least twice a year. Some of the common errors noticed in documentation of personnel are incorrect name and date of birth, incorrect address, mobile number not updated and incomplete documentation. Fortunately, due to high level of automation in Records Offices, many of these inaccuracies are being rectified by the observations raised by automated systems.

I would also like to point out that units would in all probability be receiving the Handbook having compilation of all Ex Gratia/Welfare Schemes for NOK of Fatal Casualties/Disabled Soldiers/Veterans issued by the DIAV, AGs Branch IHQ of MOD (Army). Relevant information available in this compilation should be shared with the NOK. The unit should also subscribe to the Annual **Sammaan** Magazine published by DIAV. Where feasible, the unit could consider maintaining a help line (mobile number) at the unit level (which can also be used by serving personnel on leave or out of station on duty, etc).

The Outreach Achieved

Since commencement, Radiant Sambandh Help Desks have been able to advise and assist over 6000 NOK of PC, pan India, on the process of availing DIAV welfare grants and Children Education Allowance (CEA). In the last academic year, with the involvement of Radiant Sambandh, over Rs 2000000/- was disbursed by DIAV and Record Offices to widows and wards of

PCs. In the current Academic Year, over 6500 application forms have been sent by Radiant Sambandh to NOKs, for initiating their claims; and 500 plus forms duly filled have been sent to DIAV / Record Offices. The experience has been that, many NOK were not aware of the welfare measures instituted and as highlighted earlier language issues continue to bedevil effective implementation, which at times gets further aggravated by the lack of follow up by the Record Office. **Hence, I find this to be a very satisfying task and God sent opportunity to be once again associated with our Army and help contribute on behalf of the Radiant Group of Companies.**

Before concluding, I would like to summarize important information sites and contacts which would be of value to NOK of PCs and to concerned units too. These are:-

MUST VISIT WEBSITES

Indian Army

<https://indianarmy.nic.in/>

Directorate of Indian Army Veterans (DIAV)

<https://www.indianarmyveterans.gov.in>

Virangana and NOK Helpline

diav.vsk@gov.in

Helpline: 011-25664100 WhatsApp: 9910964067

SPARSH

<https://www.sparsh.defencepension.gov.in/?page=home>



Colonel AK Prasad (Retd) was commissioned into the 2/8 Gorkha Rifles on 09 June 79. He has attended the Technical Staff Officers Course at Pune. He commanded 5 Assam Rifles. After superannuation in January 2012, he joined Radiant Cash Management Services as a Regional Head and is presently the chief coordinator of Radiant Sambandh Help Desks.



Col AK Prasad (Retd)



Social service - bonding with under privileged children

TRAGEDY, TRIALS, TEARS AND TRIUMPH

For over two decades now, Captain Shalini Singh has shown remarkable fortitude and mettle in the face of grief and loss, emerging victorious in her personal and professional battles. In this candid first-person account, she takes us through her trials and triumphs. **We had carried her story in our July 2021 issue, and are reproducing it after updating.**

If I can change one life, if I can bring a smile to someone's face, I would be truly content.

My journey has been tough, but worthwhile. I recently received a message on social media: *a boy wrote to me saying he was contemplating suicide, when he heard my story and it gave him impetus to live.* Such messages bring solace and satisfaction. If I could survive, with all my challenges, anyone can.

The Early Years

I grew up in Kanpur, Uttar Pradesh in a middle-class Rajput family. My twin brother and I had an equal upbringing and my father had dreams for me to become a doctor. He himself was a doctor in the government sector. I wasn't academically-inclined or career-oriented and had a shielded upbringing with a lot of pampering! Right from my school days though, I have been a people's person. I loved meeting people and wanted to become a counsellor. Life comes a full circle, and 25 years later, I'm realising my childhood dream.



Shalini with her husband, Major Avinash Singh and her son

Tying the Knot

I had just turned 19, when my husband's sister – a college mate – told us they were looking for a suitable match for her brother Major Avinash Singh, who was serving in the Indian Army. My mother, who had a fascination for Army life, was keen to pursue the match for me, but I was not interested initially. I felt I was too young, and didn't know how I would adapt as I was brought up in a civilian environment. My family believes that girls should be married young, and careers can be pursued even after that, so I was talked into meeting him.

Our families met at a restaurant. I had firmly made up my mind to tell the boy in question to say no, so that the decision would be taken out of my hands. When he entered though, it was love at first sight for me! He was exactly everything I wanted in a partner. We spoke for a long time, and I hoped he reciprocated my sentiments. Sure enough, in a couple of days, he said he wanted to get married to me. He had also said he wanted me to study and

choose a career, not sit at home, which was a positive sign. So, six months later, we got married in February 1997.

Learning & Unlearning

Once I got married, everything was completely new. My husband was posted in Guwahati, which was a non-family station, so I only visited him once – for a week. After that, he moved to Jamnagar, where I joined him. I had to unlearn and relearn a lot, since life in the Armed Forces is very different. He guided and mentored me, and it was a beautiful companionship. Two years after we got married, we were blessed with a baby boy. Uncertainty and fear were not things I had experienced till then.

Then one day, we invited an officer and his family for lunch. Just a week later, he was martyred in a terrorist attack in Kashmir. For the first time, I was disturbed, because I'd just met him, his wife and two young children. I couldn't imagine what his wife was going through, but realisation dawned that this is a risk one faces and accepts as a soldier.

A few months later, my husband too was posted to Kashmir (he was in the Rashtriya Rifles), and I was scared. I told him not to go, but he said this is what he was meant to do, and as a fauji's wife, I should be as strong and brave as him. I couldn't understand his point of view then, since my whole world was my home and family. He gradually conditioned me, by speaking of brave soldiers who gave their lives for the country. I then moved in with my in-laws. At the time, there were no mobile phones and limited communication. Landline connections were often sketchy, and video calls were not a possibility. My days were spent waiting eagerly for his phone calls.

Dealing with Loss

September 28, 2001 - the day we lost him - was a routine day back home, with nothing out of the ordinary. I had spoken to him a day earlier. Diwali was approaching and his leave was also through, so we were looking forward to meeting him. I was doing my post-graduation, so I went to college as usual. When I came home in the afternoon, there was a peculiar and eerie silence, which was unnerving. I could sense that something wasn't right. My sister-in-law sketchily told me that nothing had happened, other than a call from my husband's unit. Since no news is usually good news, I was perturbed about the call. My father-in-law later told me he was injured fighting terrorists. We weren't aware that he had



Left. Lady Cadet Shalini Singh while training at OTA, Chennai. Centre. Lieutenant Shalini Singh receiving the Kirti Chakra awarded posthumously to her husband, Major Avinash Singh from Dr. A P J Abdul Kalam, the President. Right. September 2002, at OTA, Chennai being pipped on commissioning as an officer.

already passed away at 4:45 am that morning, and this was their way of preparing the family. I was just 23.

When the family learnt about the loss, everyone feared breaking the news to me. I was initially told that he was being brought to Lucknow for treatment. Next day, I took extra care to get ready, wanting him to see that I was strong and hadn't fallen to pieces. We went to Lucknow by car, and just 10 minutes short of reaching the airport, I was told the truth. I didn't even have time to process this and react. At the airport, I was made to stand in front of his coffin wrapped in tricolour, with his name and Army number. I remember seeing that and collapsing. There aren't any words to describe the trauma and shock of realising that for more than 24 hours, I hadn't been aware of his death. We had lost him to a terrorist encounter in Jammu & Kashmir's Doda district, where he killed four terrorists and got martyred.

In the days that followed, people said a lot of things – some were genuinely sympathetic and others brought down my

already flagging morale. I was made to feel like there was no point living in the absence of a husband, and that my life was over. My mental and emotional state was affected, and I even contemplated ending my life, along with that of my child. I had never been exposed to such pain, and had always been a shielded child, so I didn't have the strength to deal with a loss of this magnitude.

Regaining Resolve

Hope and resilience came to me in the form of my father. He said I couldn't be so weak, with a child to look after. He told me to look at my child - smiling and laughing and playing, unaware of what had happened and what I was going through. It was a life lesson for me, and as I sat there playing with him, I made up my mind to try and be stronger.

A few of his unit officers visited us that very day, suggesting that I join the Army, as I met the age criteria. I thought they were mocking me, as I had never even taken part in sports in school! I didn't have the physical and mental

stamina required, and had a delicate and meek personality. But I slept with that thought, and in the morning told my parents and in-laws that I would like to give it a shot. My father-in-law felt that they could look after me, and it wasn't necessary to do this, but I wanted to. I was already mentally at a dead end, with negative thoughts, so why shouldn't I try to do something where I could be independent, and give a new life to my son and myself?

Military Endeavours

Within the next two months I appeared for my SSB (Services Selection Board) interview. I had less than a month to prepare for it, and it was hard because I had a child and the mental trauma was still there. I left my son with my parents for the first time. Fortunately, I cleared the SSB interview and reported to Officers Training Academy (OTA), Chennai, as a Lady Cadet. This was in March 2002, less than six months after my husband's demise.



Classic Mrs India - Queen of Substance 2017

At the OTA, being without my son for six months was painful. There was no communication - only landlines, and he was an infant, he could hardly talk on the phone. Upon joining, I thought it would be easy from now on to become an officer, since I didn't realise how tough the training would be. It turned out to be beyond my physical, mental and emotional capability and many times I felt I couldn't do it. With the help of my course-mates and coaches though, I was able to get through and got commissioned on September 7, 2002, just a few days short of my husband's first death anniversary. I was also the first lady officer to join in such a short time after her husband's demise.

My Biggest Achievement

My husband was awarded the Kirti Chakra posthumously and I marched up in my uniform to receive the award from the then President, Dr. APJ Abdul Kalam, at the Investiture Ceremony in Delhi. It was the biggest tribute I could have paid to him, receiving the award in that uniform

which is coveted by many. While walking to the podium, I had mixed feelings of sorrow and pride. I also understood what patriotism really means, and the ideal of giving up something for your country was finally justified. Earlier, I used to wonder why he went, how he could have avoided being killed and so on. All my questions were finally answered. Everyone has to die – and he died for a purpose, for the nation.

I served for five years in the Indian Army's Short Service Commission and didn't take the extension. Following that, I worked in the private sector for eleven-and-a-half years, in multiple companies in different positions. Again, since I had now been conditioned in the Army, there was a lot of learning and unlearning, and I adapted.

Marrying Again

In 2008, seven years after my husband's demise, I got remarried to an Army officer who had taken voluntary retirement and moved out. I wasn't looking to get remarried, but since I was young, my family said that it was very important to have a companion and not to spend the rest of my life alone. Unfortunately, things didn't go well. I was a victim of domestic violence, sustaining a head injury requiring stitches. There was a great deal of mental and physical abuse.

For me to walk out of a marriage was very difficult, as I was already a widow. There is social stigma attached to being a widow and a divorcee, and here I was going to be both. But eventually, you have to choose sanity and peace over social stigma. You have to choose happiness over what others would think. When I lost my first husband, I was young, emotionally weak and not financially independent. When I could take the step of moving out of home then, against everyone's wishes, what was stopping me now? What was I scared of?

The idea of '*what people will say*' has spoiled a lot of lives. We can do much better without it. I decided to walk out of my marriage, choosing a peaceful life for myself and my son. In life, decisions do go wrong, but that doesn't mean it's the end of the world. Never hesitate to walk out of something that isn't giving you the comfort and peace you need.

Dealing with My Demons

You don't get remarried to get divorced and show your child pain. I slipped into depression and it took me sometime to heal mentally and physically. To compound matters, six months after my marriage, I had



Delivering a motivational TED Talk

suffered a bad road accident, with 17-18 open fractures and was bedridden for over six months. I have implants in my body, and permanent disabilities that are not visible to others. It took time to stand on my feet. The doctors had said I could never run or walk without a limp. But it became a challenge for me to prove them wrong.

Whenever I'm stuck with anything, I go back to my Academy days. Military training is the most extreme and I told myself if I could do that, I could do anything. So I started running slowly and steadily, and became a marathon runner. I came out of my depression because I was not carrying any baggage. I believe that whatever has happened, you need to move ahead. Life is what you make of it.

Pageants & Tiaras

I was also crowned **Classic Mrs India – Queen of Substance for 2017**. Entering the beauty pageant just happened – it wasn't something I planned. Friends told me that I had an inspiring past and felt that others should know about it. I felt it was not really upto me to inspire others, but somewhere my life had become so

turbulent and non-glamorous between the Army and the corporate world, so I thought, why not give it a shot? It was a beautiful and enriching experience during the five to six days of the finale, along with the months of audition and training, I learnt a lot and it was a kind of soul-searching for me. Winning wasn't in my thought process – I went for the experience. The women who participated were very talented and much more prepared. I focussed on being my own competition, looking to improve and work on myself. I was also not overwhelmed or pressured. If you're enjoying something and not doing it purely to compete, you tend to have a much more relaxed approach. That was what gave me an edge.

I also went on to participate in an international pageant when the Director of Mrs India said there was a 'single parent' category for widows or divorcees, but for the past seven years, it had zero participation from India because of the social taboo. So I became the first Indian to participate in this category, trying to break the glass ceiling.

Other Indian women in similar circumstances have since had the courage to follow suit.

Life Today

Today, I'm working in the corporate sector heading HR for a company. I studied further and have acquired a Law degree. Besides this, I've been working towards various causes – foremost among them being financial support and guidance for war widows, being a war widow myself. Other social causes like cancer support and stray animals are also close to my heart. I'm also a full-time motivational speaker and life coach. I have conducted TED Talks. Based on my life experiences and having completed a course, I do life counselling too, taking on just a few cases every month due to paucity of time. I'm also a firm women's rights advocate, and believe that women need to support and uplift each other to make a true change in society.

■ Ex-Captain Shalini Singh



Lieutenant Usba Rani (centre), her twins and Vice-Chief of the Army Staff Lt Gen NS Raja Subramani after the passing out parade at OTA Chennai September 2024 (photo tribuneindia.com)

India's Armed Forces and their extended families bear a heavy cost when soldiers lay down their lives in service to the nation. The term "**Veer Nari**", literally translating to **brave woman**, honours widows of battle casualties. War widows of the Indian Armed Forces embody resilience in the face of profound personal sacrifice. While welfare schemes like pensions and education support are well known, less visible, but equally significant, is their eligibility to join the Indian Army as officers through the SSC entry via the Services Selection Board (SSB).

The Army Wives Welfare Association (AWWA) shoulders the task of supporting war widows through emotional, social, and infrastructural empowerment. Other than immediate financial and emotional relief, it also educates Veer Naris about their entitlements and opportunities.

Eligibility and Selection Overview

Eligibility for SSC (Technical & Non Technical): Widows of defence personnel who died in harness are permitted to apply, even if they have children, provided they have not remarried.

Vacancy Reservation: A 5% quota is reserved for widows in both SSC (Technical) women and SSC (Non Technical) women entries.

Examination Exemption: The SSC (Non Technical) entry requires qualifying and making it to the merit list of the

GRIEF TO GLORY:

WAR WIDOWS TURN LOSS INTO LEGACY

Like a phoenix rising from the ashes, war widows can now forge their own career path and join the Indian Army as an officer through the Short Service Commission (SSC) entry. Since the inception of this scheme, several stories of courage have emerged.

Combined Defence Services (CDS) Examination conducted by Union Public Service Commission (UPSC). **War widows are exempt from appearing in the UPSC exam**, and are selected directly via the SSB Interview.

Age Relaxation: They receive an upper age limit relaxation up to 35 years at the time of joining training at Officers Training Academy (OTA), Chennai.

Application and Documentation. War widows have to apply and submit required documents. The application form can be downloaded from joinindianarmy.nic.in. Other documents include self-attested educational certificates (10th, 12th, Graduation), Part-II order of marriage and Part-II order of demise of husband, initial and final casualty reports or certificate.

SSB Interview. The selection hinges on the standard SSB evaluation. In practice, SSBs will evaluate them like all candidates, but personal context and OLQs (Officer-Like Qualities) can be factors in subjective assessment.

Training at OTA, Chennai

Here's what training at OTA, Chennai entails. All SSC entries, including Technical, Non-Technical, and war-widow (*Veer Nari*) candidates, undergo 49 weeks of Pre-Commission Training at OTA, Chennai. Upon completion, cadets are awarded a Post Graduate Diploma in Defence Management



Honour Board displaying names of Veer Naris who were commissioned at OTA Chennai

and Strategic Studies by the University of Madras. During training, cadets are not permitted to marry, including war widows. If a cadet marries - even during training - their commission is cancelled and they must refund government training costs. Unlike regular SSC Technical graduates, war widows entering via SSCW (Non-Technical) do not receive ante-date seniority even though they are granted the rank of Lieutenant upon commissioning.

Training at OTA is entirely funded by the Government. However, if a cadet withdraws for non-medical reasons, they are liable to refund the cost of training. During training, cadets receive a monthly stipend, approximately Rs.56,100/-. Training is holistic, designed to forge leadership, resilience, and tactical proficiency. It includes physical conditioning with rigours such as route marches, PT drills, combat drills and military skills such as arms handling, map reading and drills. Academics and leadership qualities including military strategy, ethics and character development are also covered.

All cadets, war-widow or otherwise, follow the same intensive regimen and are evaluated equally. Cadets wake at 0530

However, their presence enriches the officer corps with stories of courage and continuity.

Welfare Landscape & Supportive Policies

Although the focus is on the SSC/SSB pathway, this exists within a broader welfare ecosystem for war widows. As of December 31, 2024, there are approximately 740766 registered war widows of ex-servicemen across India, with states like Punjab (75821), Uttar Pradesh (72071), Kerala (71570) having the highest numbers.

Financial assistance includes monthly family pensions that are revised periodically, daughter's marriage grants (₹16000-₹50000), widow remarriage grants, penury grants (₹4000/month for those aged 65+), vocational training grants (₹20000-₹50000), medical treatment grants, serious diseases grants (up to ₹1.5 lakh), and home loan interest subsidies.

Education support includes the Prime Minister's Scholarship Scheme with 5500 scholarships annually, (₹2500/month for boys and ₹3000/month for girls). In addition, there are health and social amenities such as access to ECHS for cashless healthcare, railway travel and telephone concessions, and priority / reservation in Army Welfare Housing Organisation projects (3% quota).

Compassionate appointments are also allotted in Group C posts. There is a reservation quota in central public sector enterprises (4.5%), and resettlement schemes include petrol pump allotment, priority in higher education seats and medical/dental seats quota. These measures provide crucial support to help widows rebuild lives.

The SSC/SSB scheme for war widows offers dignity and purpose, embedded in fairness. It is a battlefield transformed into a training ground, not with advantage, but with opportunity. Behind every aspirant lies a story of loss, courage, and determination. They navigate grief while aiming for commissioning. They are contenders, committed to proving their mettle just as any candidate would.

hours for muster parades. Mornings and early afternoons focus on physical and academic training. Evenings include sports, analysis sessions, and more Physical Training before lights-out around 2200 hours.

Female cadets, including war widows, train in dedicated Lady Cadet Companies- Zojila and Phillora-within two battalions, Ranjit Singh and Shivaji. There is no differentiation in treatment. Lady Cadets train alongside Regular SSC entrants, with equal expectations and support. War-widow cadets are expected to meet the same academic, physical, and ethical benchmarks as any other officer cadet.



From Left to Right : Gauri Mabadik wife of Major Prasad Mabadik (photo indiatimes.com), Lieutenant Colonel Ravinder Jeet Randhawa (photo ssbcrack.com), Priya Semwal wife of Naik Amit Sharma (photo indiatimes.com), Nitika Kaul Dboundiyal wife of Major Vibhuti Shankar Dboundiyal (photo indiatimes.com), Riya Nebra with Captain Somesh Shrivastava (www.instagram.com), Swati Mabadik wife of Colonel Santos Mabadik (photo indiatimes.com), Lieutenant Soni Bisht wife of Sepoy Neeraj Singh Bhandari on commissioning in March 25 (photo ssbcrackexams.com) and Neeru Sambyal wife of Rifleman Ravinder Sambyal (photo indiatimes.com)

Real-Life Stories of Courage

The first Veer Nari to join the Indian Army was Lieutenant Colonel Ravinder Jit Randhawa in September 1998. She was married to Major SJS Randhawa who was martyred in Kashmir in a Counter Insurgency Operation while serving with 2 Rashtriya Rifles Battalion. For this, he was posthumously awarded the Kirti Chakra. At that point, Mrs Ranjana Malik was the Chairperson of AWWA (the wife of General Ved Malik, Chief of Army Staff). When Ravinder met her, she expressed her desire to join the Indian Army and serve the nation. Joining OTA, Chennai in 1997, as a tribute to her husband, she was a pioneer and an inspiration to the many Veer Naris who followed.

Major Geetanjali married Major Sanjeet when she was just 21, and the two got married in December 1992. Life was idyllic for Geetanjali initially. Then, her husband lost his life fighting insurgents in Jammu & Kashmir. He was awarded a Sena Medal posthumously for exhibiting courage and gallantry. Geetanjali bravely decided to

join the Indian Armed Forces herself and passed out of the OTA, Chennai in March 1999, being commissioned into the Army Ordnance Corps.

Captain Riya Srivastava was a young, carefree, fun-loving girl when she married Captain Somesh Srivastava, an Engineer officer in the Indian Army. Soon after, in an unfortunate incident, he lost his life in a snow clearing operation in the Manali-Leh sector. The newlywed Riya was heartbroken and went into depression. However, she soon realised that the best way to keep her husband's memory alive was through carrying on his work and upholding his legacy. This was a time when joining the Indian Army as a woman, and especially a Veer Nari, was considered revolutionary. But that didn't deter Riya, who joined the OTA in March 2002. She was commissioned into the Army Ordnance Corps in September 2002.

Lieutenant Colonel Harjot Kaur was married to Major BS Cheema of 47 Armoured Regiment in 2000, and the

couple was blessed with a daughter in 2001. In 2004, when Major BS Cheema was posted with 55 Independent Mechanised Brigade, he became a physical casualty during the field firing exercise in Rajasthan. This ill-fated incident shook her, but she found inner strength and inspiration from her late husband. Undeterred by hardships and ably supported by her family as well as the 47 Armoured Regiment, she decided to join the Army. Harjot joined OTA, Chennai in March 2005 and passed out after a rigorous and demanding training regime on 17 September 2005 into the Army Educational Corps.

Lieutenant Colonel Prabha Bisht was away from her 14-month old son during the entire period of her training, but this only cemented her resolve to do well. Married to Major Samrat Maiti of 1 Naga Battalion, she lost him to a counter insurgency operation in the North-East in 2004. For his bravery, he was awarded the Shaurya Chakra posthumously. At the time, Prabha was

pursuing an MBA while simultaneously caring for an infant. The incident shook her, but she decided to join the Indian Army as an officer, after clearing the SSB and training at the OTA. She was eventually inducted into the Army Educational Corps.

Lieutenant Colonel Asmita was married to Major Lalit Kumar of 19 MAHAR. In April 2003, he was posted to 1 Rashtriya Rifles Battalion involved in counter terrorist operations. On December 4, 2004, while Major Lalit was moving for an operation, his vehicle was targeted by terrorists using an IED. He was awarded a Sena Medal posthumously. Asmita was still pregnant when she received the news. Despite delivering a baby shortly after, she had made up her mind already to join the Indian Army and become a role model for her child. She began training at the OTA in October 2006 and was awarded 'Best in Endurance' Medal. Shortly after, she was commissioned into the Army Ordnance Corps.

In 2007, yet another courageous woman, Lieutenant Colonel Padmaja, was inducted into the Army Ordnance Corps after deciding to follow in the footsteps of her husband and don the 'olive greens'. Padmaja was married to Major Vijay Kumar, an Army Medical Corps Officer in 2005. Just six months later, he lost his life during training at the Mahajan field firing range. At the time, he was posted with 16 Field Regiment as the Regimental Medical Officer. However, Padmaja did not let this tragedy bog her down and turned it into an opportunity to honour her husband.

More recently, Captain Priya Semwal passed out in March 2014. In 2012, she was still pursuing her higher education and raising her six-year-old daughter when she received devastating news. Her husband Naik Amit Sharma of 14 Rajput was fatally

injured in a counter insurgency operation (Operation Orchid) near Tawang, Arunachal Pradesh. The future appeared bleak, but drawing on her reserves of inner courage, Priya decided to appear for the SSB interview five months later. In 2013, she joined OTA, Chennai for rigorous training. With 'Never Give Up' as her mantra, she aced it, receiving 12 medals for endurance, physical training and outdoor training as well as two gold medals for cross country. She was inducted into the Corps of the EME in 2014, becoming the first martyred soldier's wife to be commissioned as an officer in the Indian Army.

The Veer Naris who joined are not just widows of young officers and men. Major Swati Mahadik, the widow of Colonel Santosh Mahadik, who was martyred when commanding 41 Rashtriya Rifles in Kupwara is an example of a senior officer's widow joining as a Lieutenant. She was commissioned in September 2017.

Despite facing loss, tragedy and heartbreak, all these women showed

fortitude and courage. Instead of wallowing in self-pity, they picked up the threads of their life and chose to forge ahead bravely, keeping the spirit and 'never say die' attitude of the Indian Army intact. In nearly all these cases, age relaxation and the waiver of the CDS written examination were instrumental in facilitating their entry, a reflection of the Army's accommodation for qualified war widows. However, they cleared the same rigorous SSB Interview as other aspirants, reaffirming that this was not a symbolic or honorary entry but a merit-based inclusion. They passed out from the OTA Chennai, a prime commissioning institution, alongside regular cadets, underscoring their professional acceptance and integration. **As of March 2025, 40 widows have stepped across the portals of OTA, Chennai and become commissioned officers. Indeed, worthy empowerment of our Veer Naris.**



Neeti Jaychander has over 18 years of experience as a writer and journalist. For over a decade, she was the Senior Regional Editor (Southern India) at FEMINA, the country's oldest and largest-selling lifestyle magazine. She has been the Editor of ET Madras Plus, the erstwhile lifestyle supplement of The Economic Times, and has authored books for children. She is a writer with the Deccan Herald, Zenger News (the world's first digitally native wire service) and teaches a journalism course at the National Institute of Fashion Technology, Bengaluru. She is presently Vice President Design and Contents for Medals and Ribbons.



Neeti Jaychander

COPING WITH LOSS

A VEER NARI STORY

Most **Veer Naris** overcome their grief with the help of near and dear ones, their family, parents and friends, and reasonable financial support from the Government and the Army helps too. A few **Veer Naris** gain prominence, become influencers and role models, take up professional careers. But most widows hailing from rural communities continue to live a staid, modest and uneventful life, caring for their children and bringing them up as single parents. Several widows remarry too, which is socially desirable. This is the story of a simple **Veer Nari**, not well educated, hailing from a village in Eastern Nepal.

Smt Ambika Ghale, widow of Subedar Jagat Bahadur Ghale, KC (Posthumous) stepped onto the stage and walked up for the felicitation. The occasion was the Platinum Jubilee Celebrations of her late husband's unit in Siliguri in February 2024. She had been escorted to the event by an ex-serviceman from the unit. It was a solemn occasion, she had stayed in the unit with her husband a couple of times, but that was two to three decades earlier. I wondered as to what feelings were churning in her mind.

My thoughts took me back in time to July 1980 when I first met her husband - Rifleman Jagat Ghale, who was deputed to the Officers Mess during our field tenure in Assam. Jagat Ghale had a cheerful countenance, a ready smile and was extremely sharp. He handled duties in the Officers Mess beyond his brief competently, and within a few years was assigned the responsibilities of the Wine NCO (Non Commissioned Officer). He continued to grow in knowledge, expertise and capability. His sincerity and integrity were clearly visible, he was



Smt Ambika Ghale, Veer Nari of Subedar Jagat Bahadur Ghale, KC (posthumous) being felicitated during the unit's Platinum Jubilee Celebrations, February 2024

assigned to manage the Unit Canteen, later took charge of Quarter Master platoon responsibilities too. He was undoubtedly a reliable leader in operations too. As my memories flashed, I remembered him as a Post Commander of a Section Post on the Line of Control (LC) – his post was operationally effective, he led his men competently through the firing and shelling across the LC. He was to lay down his life near the same area a few years later – Killed in Action.

On the night of 06 November 2004, Subedar Jagat Bahadur Ghale led a team in an ambush near the LC in the Poonch Sector of Jammu & Kashmir. The team observed six terrorists trying to infiltrate from Pakistan Occupied Kashmir across the LC into India. Jagat Bahadur Ghale shifted the ambush to intercept these terrorists and allowed them to come within firing range. When they were 15 metres from the ambush, Jagat Ghale opened fire and two terrorists were downed in the first burst. The terrorists fired back and tried to escape, Jagat Ghale moved swiftly with his team to



Smt Ambika Ghale at the felicitation ceremony in February 2024 - greeting the audience and thanking the unit. Inset. Jagat Ghale and Ambika Ghale.

block their escape route. With Ghale leading by personal example, the team continued to engage the retreating terrorists. Jagat Ghale received a gunshot wound on his left shoulder. Despite the injury and profuse bleeding, Jagat Ghale rallied the troops and fired effectively, injuring a third terrorist. Unmindful of his own condition, Subedar Ghale motivated his troops to neutralize the infiltrating terrorists, until he collapsed due to excessive loss of blood. The extract of his citation read, **“For his display of conspicuous gallantry, selfless bravery and courage of the highest order, wherein he sacrificed his life in the finest traditions of the Army, Subedar Jagat Bahadur Ghale was awarded Kirti Chakra (Posthumously).”**

How did Ambika Ghale cope with the loss? The trauma is intense in the first few weeks after the loss, and family structures step in to support. Ambika Ghale’s family also supported her, consoled her and caring for her children helped her overcome the grief. Her son Rupesh was 11 years old and daughter Rubina was about seven. Looking at her

children, she realized that she now had to bear the responsibility alone – their education, their upbringing, their ethical conduct. Their father was a hero, a valiant warrior, and he would remain their idol. She visited the Indian Army’s Pension Paying Office at Dharan in Eastern Nepal for guidance and to receive the entitled benefits. The battalion too followed up, monitoring the release of financial dues, completing the paper work. Unit personnel proceeding on leave to that area were asked to meet her and assist as required. Undoubtedly, the Indian State cares for widows of ‘Battle Casualties’, and there is additional support for widows of gallantry award winners too.

The pension, education assistance, scholarship schemes helped, and she did not have to search for a job to make ends meet. She was able to send Rupesh to Australia for higher education, from where he graduated. Rupesh currently resides in Australia. Rubina completed her schooling and after marriage is presently residing in Kathmandu. Ambika is in her mid-50s and resides near Birtamor, Jhapa District in Eastern Nepal. She receives a pension of about Rs one lakh plus every month (translates to about Rs 1.65 lakh Nepalese Rupees).

There were many families participating in the Platinum Jubilee Celebrations. Many of the younger women were smart, well-educated and confident, with several of them working as teachers, nurses, in offices, etc. Emancipation of women in society is a welcome progression. I realized that the **Veer Naris** in recent years are possibly more capable of shouldering family responsibilities and facing the social challenges of modern living—most of them would be able to move on in life, and overcome the grief.

Notwithstanding all the support that the family and Indian Army provides, solitude is a hard situation. Job, activity, friends and possibly a new companion can reduce the pangs of loneliness. Widow remarriage is hence becoming more common and is more acceptable socially too. But remarriage may not be a panacea always. There have been cases where the remarriage has been traumatic for **Veer Naris**, in several cases the second husband has frittered away the financial savings of the **Veer Naris**. Life’s pitfalls! **As the felicitation function ended, I hoped that Smt Ambika Ghale would continue to face life’s difficulties with fortitude and resilience.**

— ■ Lt Gen JS Sandhu (Retd) Editor

NAVIKA SAGAR PARIKRAMA II

DILROO SAIL AROUND THE WORLD

The Indian Navy has undertaken a series of historic circumnavigations under the Sagar Parikrama initiatives, showcasing maritime skill, endurance, and national pride. The first milestone was set in 2010, when Commander Dilip Donde completed Sagar Parikrama I, becoming the first Indian to accomplish a solo circumnavigation under sail. This was followed in 2013 by Commander Abhilash Tomy, who, through Sagar Parikrama II, achieved a non-stop solo circumnavigation of the globe, marking a new chapter in India's naval and sailing history. Building on these achievements, the Navy launched Navika Sagar Parikrama in 2017–18, where a team of six women officers successfully completed the first all-women circumnavigation, symbolizing both professional excellence and gender empowerment in the Armed Forces. Most recently, **Lieutenant Commanders Dilna K. and Roopa Alagirisamy** carried forward this legacy by completing the latest **Navika Sagar Parikrama II**, reaffirming the Indian Navy's commitment to oceanic exploration, adventure, and breaking new frontiers.

This is the narrative of their achievement.

On 02 October 2024, the Indian Navy embarked on a historic mission that combined the spirit of adventure with the force of diplomacy. Lieutenant Commanders Dilna and Roopa, two women officers, set sail on a daring circumnavigation of the globe under the mission named **Navika Sagar Parikrama**. The historic voyage was flagged off by Admiral Dinesh K Tripathi, the Chief of the Naval Staff. Over the course of eight months, they travelled over 25500 nautical miles, touching four foreign ports; Fremantle in Australia, Lyttelton in New Zealand, Port Stanley in the Falkland Islands, and Cape Town in South Africa, before triumphantly returning to India on 29 May 2025.

This extraordinary journey was more than just a feat of endurance, navigation and seamanship. It was a bold statement



Navika Sagar Parikrama II Route.



DilRoo sailing on the high seas

of women empowerment, demonstrating the Indian Navy's evolving commitment to gender inclusion. At the same time, it served as a powerful instrument of maritime diplomacy, strengthening India's ties with friendly nations and engaging with global communities on shared values, partnerships and cultural connections.

Navika Sagar Parikrama is a mission rooted in precedent but renewed with purpose. The term "**Navika**" refers to a female sailor, and "**Sagar Parikrama**" translates to "*circumnavigation of the oceans.*" In 2017–18, the Indian Navy had launched the first all-women circumnavigation mission aboard Indian Navy Sailing Vessel (INSV) *Tarini*, making international headlines. The 2024–25 edition continued this legacy with a leaner but equally formidable crew, consisting of just two officers, pushing the boundaries of physical endurance, psychological resilience and maritime skill.

Setting sail from Goa aboard *INSV Tarini*, Dilna and Roopa embarked on a voyage that would challenge the very limits of human tenacity. *INSV Tarini* is the second sailboat to be inducted into the Indian Navy on 18 February 2017. Designed as a cruising sloop, she is named *Tarini* in honour of the revered Tara *Tarini*. The hull is constructed with a wood-core and fibreglass sandwich, providing both strength and resilience. She is rigged with six sails, including the mainsail, genoa, stay sail, downwind sail, and storm sail, enabling her to operate effectively under challenging seas. Measuring 56 feet in length, *Tarini* is equipped with a 25 metre mast, custom built by Southern Spars, which enhances her performance and seaworthiness. They navigated through high seas, unpredictable weather patterns, technical challenges and long stretches of isolation. *Tarini*, equipped with modern navigation and communication tools but

essentially minimalist and Spartan living conditions, demanded meticulous planning and continuous adaptation. As per accepted practice, the route involved crossing the Equator twice; the first, being Point Nemo, the farthest point from land, and also traversing three major capes which are Cape Leeuwin, Cape Horn and the Cape of Good Hope. Each is known for its historical significance and perilous conditions.

Navika Sagar Parikrama symbolizes the rising stature of women in India's defence services, particularly in the Navy. The successful circumnavigation by two women officers sends an unmistakable message: women are not only capable of serving in high-risk, high-skill domains but also of leading missions that require independence and critical decision-making. Both officers are highly trained naval professionals with extensive experience in navigation, meteorology, marine engineering and survival training. Their selection for such a prestigious and demanding mission reflects the

Navy's trust in their capabilities and signals a shift towards inclusive operational policies. It also aligns with broader national goals aimed at empowering women across sectors, from boardrooms to battlefields to braving high seas. Their achievement is likely to inspire a new generation of young Indian women to consider careers in the Armed Forces and at sea, thereby contributing to a more balanced and representative military structure. The mission not only breaks gender stereotypes but does so in a domain where endurance, intellect and skill trump all physical distinctions.

One of the most significant aspects of the journey was the port calls in four key regions: Australia, New Zealand, the Falkland Islands, and South Africa. Each stop was an opportunity to project India's maritime efforts, and showcase its soft power, and engage in meaningful diplomacy.

The first port call was at Fremantle, Australia, a key maritime hub and a long-standing partner in Indo-Pacific security. Here, the



INSV Tarini charts through the world's most isolated waters! Lt Cdr Dilna K & Lt Cdr Roopa Across Point Nemo - the Oceanic Pole of Inaccessibility. A testament to resilience, courage & the spirit of adventure. Fair winds & following seas. (photo credit Indian Navy and en.wikipedia.org)



*Dilna and Roopa interact with Legislative Assembly Members at Falkland.
Inset. On return to Goa, with Shri Rajnath Singh, the Hon'ble Raksha Mantri, May 2025*

skippers were welcomed by members of the Indian diaspora and local dignitaries. They were invited by the Western Australia Parliament, the Australian Naval Unit HMAS Stirling, Fremantle Sailing Club and Ocean Reef Senior Higher School. In Lyttelton, New Zealand, the skippers engaged with both civilian and diplomatic officials, visiting universities and interacting with students and scholars. Their presence in New Zealand also marked the importance India places on regional outreach and strengthening ties with maritime nations in the South Pacific.

The visit to Port Stanley in the Falkland Islands was one of the most unique aspects of the journey. The officers were hosted by the local government and visited the Falkland Islands Legislative Assembly, interacting with the Deputy Governor of Falkland Islands, Government and Royal Navy officials. Their interactions underlined India's commitment to promoting peaceful maritime exchanges and scientific cooperation, especially in remote geographies often neglected in conventional diplomacy.

Cape Town, a city rich in maritime history, served as a fitting final international stop. The officers were received by Indian

goodwill and shared values. The **Parikrama** allowed India to demonstrate its commitment to freedom of navigation, respect for international maritime law, and collaborative maritime governance. By engaging with nations at each port, India extended a hand of friendship while simultaneously projecting its capability to operate far from its shores. In a world increasingly defined by blue economy aspirations and maritime connectivity, such engagements have strategic weight.

Moreover, the officers' interactions with Indian expatriates fostered cultural connections and enhanced the soft power appeal of India abroad. These meetings strengthened the emotional and national bonds that the diaspora holds with India, serving both diplomatic and public relations objectives.

Another underlying theme of the mission was the promotion of ocean sustainability. The officers embarked with not only navigational equipment but also a mandate to advance environmental awareness. Throughout the voyage, they recorded detailed observations on marine biodiversity, plastic pollution and oceanic currents. Water samples were collected from various locations across the world's oceans for analysis at the National Institute of Oceanography. These findings contribute to both naval and civilian research initiatives focused on climate change and the preservation of maritime ecosystems. Their voyage across some of the world's most ecologically sensitive marine routes such as the Southern Ocean and South Atlantic, highlighted the urgent need to preserve marine resources. In their interactions at universities and public forums, the officers often stressed the interconnectedness of maritime security and environmental security, a theme gaining prominence in global policy circles.

Navika Sagar Parikrama stands as a national milestone, not

High Commission officials, members of the South African Navy, and local leaders. During their visit, they spoke at public forums and at the University of the Western Cape. Cape Town symbolized both the historical and strategic links between India and Africa, offering an ideal platform for reaffirming ties under the India-Africa maritime cooperation strategy.

Maritime diplomacy remains a vital arm of foreign policy, especially for a country like India with a vast coastline and a growing maritime footprint. Missions like **Navika Sagar Parikrama** play a critical role in non-coercive maritime presence, where defence forces engage not through conflict but through dialogue,

merely for its achievement in endurance sailing but for the symbolic capital it accumulates. It represents a modern, confident India; assertive in its diplomacy, inclusive in its defence forces, and responsible in its global engagements.

Upon their return on 29 May 2025, Lieutenant Commander Dilna and Lieutenant Commander Roopa were accorded a ceremonial reception by the Hon'ble Defence Minister, the Chief of the Naval Staff, and other senior dignitaries. The event was marked by formal commendations recognising their exceptional achievement and the exemplary professionalism displayed during the mission. Their accomplishment is expected to serve as a significant milestone in the ongoing efforts to promote gender inclusivity within the Armed Forces. Plans are underway to feature their success prominently in motivational and outreach campaigns aimed at encouraging greater participation of women in leadership roles, operational commands, and the broader sphere of national defence. By showcasing their dedication, skill, and resilience, the Navy seeks to inspire future generations of officers, particularly women to pursue challenging assignments and contribute meaningfully to the nation's security and maritime excellence. The Indian Navy is expected to institutionalize periodic circumnavigation missions with both mixed and all-women crews, strengthening both operational preparedness and international outreach.

The successful completion of **Navika Sagar Parikrama** by these two officers was not a product of chance, but the culmination of years of deliberate preparation, rigorous training, and the combined efforts of multiple institutions of the Indian Navy. Oceanic circumnavigation, particularly with a

reduced crew of two, demands a rare blend of seamanship, endurance and resilience, which can only be achieved through sustained, systematic grooming. The officers' achievement thus stands as much as a testament to their personal grit as it does to the Navy's structured training ecosystem and institutional support.

Both officers underwent extensive professional training across multiple disciplines to prepare for the voyage. Their foundational expertise lay in core naval domains such as Navigation and Direction, Communication Systems, and Diving, each critical for independent functioning in a maritime environment. Navigation training sharpened their ability to calculate positions, plot courses, and plan voyages in the face of complex and shifting oceanic conditions. Training in Communication ensured they were adept at maintaining contact across multiple channels-whether for coordination, safety or emergency management-while diving training honed their confidence in underwater survival, equipment handling, and damage control, all indispensable skills in the event of contingencies at sea.

However, beyond their standard professional qualifications, the most critical preparation lay in their specialized sailing training. For over two years prior to the expedition, both officers undertook intensive sailing regimens designed to replicate the conditions of global circumnavigation. This included transoceanic passages across the Indian Ocean and beyond, where they encountered and mastered varied weather patterns, ocean currents and navigation challenges. Such long-haul sailings were essential not only for building technical proficiency in sail handling and vessel maintenance but also

for developing the psychological stamina required for extended periods of isolation and self-reliance.

Commander Abhilash Tomy (Retd) played a pivotal role as the principal mentor for Dilna and Roopa in preparation for **Navika Sagar Parikrama**. A veteran of ocean sailing with a global reputation, Commander Tomy brought to their training not only his professional acumen as a naval officer but also his unique distinction as the first Indian to complete a non-stop solo circumnavigation of the globe during *Sagar Parikrama II* in 2013. His wealth of knowledge, acquired from months spent alone at sea and later from his participation in the highly demanding Golden Globe Race (GGR), was of immense value in shaping the mindset and readiness of the two officers.

As their mentor, Abhilash Tomy provided guidance that went beyond technical instruction. Drawing from personal experiences of storm navigation, equipment failures and the psychological strain of isolation, he was able to prepare the skippers for the realities of life at sea in its rawest form. His insights on managing fatigue, maintaining focus under duress, improvising repairs in adverse conditions, and conserving mental strength proved invaluable. For these two, who skippered on different legs, his presence was not merely that of a trainer but a source of strength and reassurance, an experienced mariner whose own journey embodied the possibilities of courage, resilience and professional excellence.

Central to this training effort was the Ocean Sailing Node (OSN) at Goa, established by the Indian Navy as a dedicated facility for nurturing ocean



DilRo, cheerful and smiling as they cross the International Date Line (Photo Indian Navy)

sailing expertise. The OSN provided structured training schedules, simulated exercises, and supervised sea sorties that gradually escalated in complexity. Here, the two skippers were immersed in practical sailing drills, including night navigation, storm management, equipment repair under duress, and emergency protocols. Complementing the OSN's efforts was the Indian Naval Sailing Association (INSA) at Naval Headquarters, which coordinated overall training standards, ensured availability of resources, and oversaw the progression of the officers' preparation. Together, the OSN and INSA provided the institutional backbone that made the voyage feasible.

The Directorate of Naval Operations (DNO) at Naval Headquarters played an equally pivotal role throughout the mission. Even while the officers were at sea, the DNO maintained real-time oversight of the expedition. Utilising modern tracking systems, the Directorate kept constant watch on Tarini's progress across the oceans, ready to render advice or intervene with assistance if required. This continuous operational monitoring offered both reassurance and safety, ensuring that while the officers sailed independently, they were never beyond the supportive reach of their service.

An additional, yet crucial, dimension of preparation was medical readiness. Long-duration ocean voyages pose significant risks of malnutrition, dehydration, fatigue and illness due to constrained living conditions and limited access to medical facilities. To address this, the officers were placed on a specialised nutritional regimen formulated by medical teams of the Indian Navy's Medical Services. This diet was carefully designed to balance caloric sufficiency with essential nutrients, while also accounting for the psychological comfort of meals in isolating

conditions. Packaged in a manner suitable for long-term storage and endurance, the diet was as much a medical safeguard as a morale booster. Moreover, a naval medical officer was assigned to provide advisory support throughout the voyage, available to guide them in case of any health-related distress.

Navika Sagar Parikrama of 2024–25 is more than a maritime expedition; it is a manifestation of India's progressive values, a testament to the strength of its women, and a strategic exercise in diplomacy through the seas. It blends courage with clarity of purpose, showcasing a military that is as comfortable with engagement as it is with defence.

As India continues to expand its maritime footprint in an increasingly multipolar world, missions like this will play a key role in shaping its global identity. **And Lieutenant Commander Dilna and Lieutenant Commander Roopa symbolised this journey as two women naval officers, who sailed across oceans and broke through barriers, opening new horizons for India's women and for the nation's maritime vision.**



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Commander (Dr.) Kalesh Mohanan



*Second Launch Pad of Satish Dhawan Space Centre, 15 July 2018
(Photo Aakarsh K, commons.wikimedia.org)*

INDIA'S HUMAN SPACE FLIGHT ODYSSEY

THE ROLE OF INDIAN AIR FORCE (IAF)

With Group Captain Shubhanshu Shukla soaring into space on June 25th, India sent an astronaut to space about 41 years after Wing Commander Rakesh Sharma's space journey on 3rd April 1984.

This article highlights the role that the IAF has played and shall continue to play in India's Human Space Flight Programme.

The pioneers of space flights from all countries, beginning with Yuri Gagarin of the former Soviet Union, Alan Shepard of the USA, Yang Liwei of China, and other countries who used the facilities of these nations have all been fighter pilots, and specifically test pilots (except Yuri Gagarin). The commanders and pilots of the missions that followed, especially if these were the first of a new series or type of missions, were always fighter pilots or test pilots with fighter flying background. India too chose to follow this proven path while venturing out into space. **What makes test pilots with fighter flying background the ideal candidates for space flight programme?**

India's Human Space Flight Programme (HSFP)

In 2006, the Niti Aayog and others hosted a National Space Conclave, where it was recommended that India should have a National Human Space Flight Programme. Lead



Shubhanshu Shukla (front row; second from right) with crew members of the Axiom Mission 4 and other astronauts on ISS (Photo PTI)

agencies from various associated specialities were nominated. Besides various specialised centres of **Indian Space Research Organisation (ISRO)**, **IAF** and **Institute of Aerospace Medicine (IAM)**, **Bengaluru**, were among the designated lead agencies. Funds were allocated for the programme in 2008, and IAM on behalf of IAF and Vikram Sarabhai Space Centre on behalf of ISRO became partners to steer the programme. In 2014, ISRO successfully tested its Geostationary Launch Vehicle (GSLV) based on cryogenic rocket engine technology. It would be worth recalling that India had to design and build its own cryogenic engine after USA pressured Russia to cancel deals with India for cryogenic technology transfer in 1992 and 2006. Preparations for our HSFP continued with the **Reusable Launch Vehicle Hypersonic Flight Experiment or RLV HEX Technology Demonstration Flight** successfully being conducted over Bay of Bengal on 23 May 2016. The **Pad Abort Test**, where the Crew Escape System is tested for launch failure on ground, was successfully

conducted on July 5, 2018. In 2019, ISRO and IAF entered into a Memorandum of Understanding for astronaut selection and training for **HSFP Gaganyaan** with IAM being given the responsibility.

The Selection Process

Selecting an astronaut is an intense and detailed process requiring many months of evaluations and tests related to physiological & psychological conditions of an individual, his / her adaptability to new and unfamiliar environments, psychomotor skills, response to crisis, etc. Going by the global precedence and lone Indian experience in the past, ISRO requested IAF as well as the Navy and Army to nominate candidates for the programme. The

selection criteria for the prospective astronauts depended solely on medical aspects (physiological, medical evaluations, biochemistry and psychological) as the candidates had already pre-selected themselves in terms of skill sets through their qualifications and experience acquired over the course of their service career. With the stringent criteria of physical dimensions (especially height and weight), age bracket, flying experience, flying qualifications, etc, the total number of eligible aspirants would have been close to two hundred.

ISRO and IAM finalised the list of future astronauts, all test pilots from the fighter flying background of the IAF. The candidates underwent further rigorous training assessments at various institutions between 2020 and 2024. The shortlisted candidates selected after a screening process also underwent rigorous medical evaluation and tests for adaptability to space missions at the Yuri Gagarin Cosmonaut Training Centre in Russia, European Space Agency, etc. On 25 February 2024, Shri Narendra Modi, the Hon'ble Prime Minister of India, officially introduced the four Gaganyaan Astronauts to the nation.

Challenges in the Selection Process

The criteria for medical evaluation, especially psychological aspects are a closely guarded secret of the countries that have sent astronauts to space. IAM, Bengaluru had to design its own criteria with limited literature available in the public domain. India's first cosmonaut, Wing Commander Rakesh Sharma (ret'd) played a critical role in sharing his experiences and knowledge when he went to space in 1984, and his subsequent association with space mission related activities.

In two interviews with Sansad TV and NDTV, Air Vice Marshal Anupam Aggarwal, Assistant Chief of Air Staff (Medical) at Air

Headquarters, who has been mostly in charge of the medical aspects of the selection process and beyond since 2019 compared the medical evaluation requirements between a fighter pilot and an astronaut. As per him, while the physical prowess requirements of both remain very similar, medical requirements are entirely different.

Medical evaluation conducted to select eligible fighter pilots attempts to predict the suitability of an individual for a period of five years or so, whereas in the case of astronauts the attempt is to predict the medical fitness and availability of an individual for the next 20 years. This is primarily because of the heavy investments done in selection, training and operational exploitation of an astronaut's capabilities; and also, the long gestation period of manned space programmes.

Aviation Medicine specialists of the IAF at IAM and other establishments of the IAF had to visualise all conditions of space flight. The environment inside and outside a space vehicle and space station, the physiological changes that would likely affect the human body when inside this environment, the impact on human psychology and behaviour, etc. are some of the major factors to be considered during the medical evaluation. To the IAF's aviation medicine experts goes the sole credit for coming up with credible solutions to all these challenges.

Why Fighter Pilots and Test Pilots?

The world across, test pilots and fighter pilots have flown the spacecraft into space and back, with other astronauts being scientists and the like who focus on conducting experiments in space. Military fighter pilots are trained throughout their life for instinctive millisecond responses to stimuli, quick, instantaneous decision making after observing, understanding and

analysing a situation in barely two to three seconds, and immediately executing the decision—all while flying at several hundreds of km per hour. This is well above the ability of average human beings. Add to that the discipline, ability to prioritise and focus on the most important aspects during critical moments, and fitness to withstand multi-directional forces on the body. All these aspects make a fighter pilot the most suitable for such missions.

Also, test pilots bring the ability to venture into the unknown yonder. They are the first to fly all new aeroplanes and systems, newly designed or newly built. They are trained to anticipate and deal with the most unexpected. They have immense analytical capabilities based on sound knowledge and learning, and possess calmness of mind (by training and by innate personality trait). They have been trained to be thorough and methodical when dealing with absolutely new things hitherto unseen or not experienced by any human being. All

these traits added to the basic fighter pilot skills and tenacity make test pilots the most ideal for exploratory programmes like flying into space and operating space stations.

Role of Aerospace Medicine and IAM, Bengaluru

IAM, Bengaluru is to India's space programme what Johnson Space Centre (JSC) is to NASA's Human Space Flight Centre in Houston, Texas. The difference between the two lies in the roles, responsibilities, staffing and funding. While IAM looks after the medical evaluation and analysis of all aspects related to aviation (military and civil) and space in India, JSC is responsible only for evaluating and monitoring of astronauts.

IAM has a staff of about 120 which is occasionally augmented or supported by the nearest Air Force Command Hospital; JSC has about 3000 employees besides approximately 9000 others contracted for various



Gaganyaan Mission launch planned in coming year (photo ANI)



Potential candidates of the one - to three - member crew of first manned spaceflight mission in Gaganyaan programme. (photo credit ISRO)

tasks; the latter has an annual budget of USD 5.65 billion, while IAM would be happy to receive a budget of INR 100 crores or about USD 12 million at 2022 conversion rates. This does not include salaries of personnel at IAM. (JSC's figures obtained from 2022-jsc-biennial-report PDF www.nasa.gov). Yes, one understands the huge difference in the scale and scope of the human space flight programmes of the two countries; **this is just to illustrate the huge constraints under which IAF and IAM operate.**

After the rigorous selection process was completed, IAM has been solely responsible for the medical training, and the psychological and physical conditioning of the astronauts. The training and preparation focussed on zero gravity medical aspects, dietary aspects, living in and managing an alien environment while also flying and operating systems, conducting experiments etc, bio-waste management and many other imaginable and ordinarily unimaginable aspects of space flights. Real time training in parabolic flights was coordinated by ISRO and the IAF with

Russia and was successfully undertaken for all the astronaut designates.

The way the training and evaluation programme is curated has a huge impact on human space flight programmes. A typical fighter mission lasts under an hour or at times over an hour normally. The longest that an IAF fighter pilot has stayed airborne is about 10 hours. Compare that with the 20 days spent by Group Captain Shubhanshu Shukla in space and possibly much longer duration of a few months for future Gagan Yatris of India who may have to live in a Space Station. Designing and undertaking all these have been a huge success for the IAM and Indian space-faring ambitions.

Crew safety is a major challenge in a zero-gravity environment. IAM and its specialists have been preparing the crew to deal with the impacts from this new environment, like experiencing depression, radiation exposure, fatigue, sleep disorder, psychological disorders, etc. These are achieved through the facilities of classroom training, physical fitness training, simulator training and even flight suit training being carried out at IAM. During the test of the Crew Escape System, the specialists studied the impact on the human body caused by the separation of the module from the launch rocket. This study has helped in evolving crew management aspects that would be used in future for training for recovery and rehabilitation of the crew.

The facilities and laboratories available at IAM to meet this humongous task include an updated Centrifuge Chamber, Cardio-vascular Exercise Chamber, Toxicology Lab, Vestibular Lab, etc. All these are some of the best in the world and certainly the best in the country – all available at one place.

In collaboration with Indian Council of Medical Research (ICMR), IAM has established a Centre for Advanced Research in Space Psychology on its premises. At the heart of the Centre is an isolation chamber where environment and conditions of space are replicated. When human beings are placed in the chamber, all their activities, physio-psychological response to simulated crisis situations, all body parameters, etc are recorded by the second. Recently, a team of three volunteers led by cosmonaut designate Group Captain Angad Pratap along with Commander Rajiv Prasanna, a MiG-29 pilot of the Indian Navy and Mohana Sai Akula, an independent analogue astronaut and civilian analogue space research scientist from ICMR participated in Mission Anugami - a simulated 10-day Human Space Analogue

Experiment under total space-like environment, isolation and activities, except for zero gravity.

The Founding Group for Future Programmes

By placing its most valuable test pilots with huge operational combat experience from Rakesh Sharma to Shubhanshu Shukla and the three other Gaganyatri designates at the heart of India's HSFP, along with its Aviation Medicine specialists at IAM - the sole medical body with the requisite knowledge, skills and reliability, the IAF today is a critical cog in the HSFP. **IAF has given India the pioneers, the foundational group of mission commanders and mission pilots for all future space missions.**

This founding group of four astronauts or Gagan Yatriis ought to be available to India's future space programmes. ISRO should gainfully utilise the huge investment in selecting and training the astronauts in facilities across the world together with the expertise gained by our Aviation Medicine specialists and scientists involved in the designing and execution of the multiple modules of the programme. These experienced professionals should remain integral to all future programmes at least for a decade if not two decades.

With India's ambitious plans for future space programmes, IAF and its personnel would be active participants with increasing requirements for its qualified fighter and test pilots. Correct perspective planning would indicate the need to induct more pilots and Aviation Medicine specialists into the IAF to meet the demands of not only an anticipated gradual increase in the combat squadron strengths but also for extraneous national requirements like the Space Programme.

End Note

IAF has not lost four active-duty fighter pilots to an activity that is diverse from its core combat function. Instead, the knowledge and experience gained through such efforts will empower the IAF to understand and master one of the new frontiers of warfare – Space Warfare. IAF must hence take ownership of the HSFP and think long term for future prospects and possibilities in the ever-evolving nature of warfare. We haven't heard much from the IAF about its role in and contribution to India's HSFP. May be it is by design.

On 25 June 2025, Group Captain Shubhanshu Shukla lifted off to the

International Space Station as part of a four-member team aboard Axiom-4, a collaborative programme between Axiom, Space-X and NASA. He returned to Earth on 15 July 2025 after spending 20 days in space. To conclude, in India's HSFP, the IAF has made a huge contribution to future human space flight programmes and to India's own envisaged space station, the Bharatiya Antariksh Station or BAS. **IAF is building for the long term, creating a spectrum of selection and training models for various types of Indian citizens, not just test pilots and fighter pilots.**



Air Marshal TD Joseph, AVSM, VM, VSM (Retd), commissioned in December 1982 as a Fighter Pilot, has over 3850 hours of flying on aircraft like MiG-27, MiG 23 MF and training aircraft. He is a Category 'A' Qualified Flying Instructor, Instrument Rating Instructor & Examiner. He commanded 18 Squadron (the Flying Bullets) and the Flying Instructors School. He was Air Officer Commanding of AF Station Hindan and Advance HQ SWAC besides other command assignments. He has been the Senior Instructor (Air) at DSSC and Senior Directing Staff (Air) at National Defence College, New Delhi. An alumnus of the Royal College of Defence Studies, London and King's College London, he has done his Masters from Madras University and the University of London. A Senior Fellow at the Centre for Air Power Studies (CAPS), he has authored a book titled "Winning India's Next War: The Role of Aerospace Power." He retired as Senior Air Staff Officer HQ Training Command in July 2021 and is currently a Distinguished Fellow at The Takshashila Institution, Bengaluru.



Air Marshal TD Joseph

DRONE WARFARE

LOITER MUNITIONS AND KAMIKAZE DRONES

The ongoing conflicts in Ukraine and the Middle East are stark reminders of the transformative impact of drone technology on contemporary battlefields, highlighting its capacity to reshape tactical operations and strategic thinking alike. **This article specifically explores the growing role of loiter munitions and Kamikaze drones in military operations and the impact they are having on the battlefield.**

The Unmanned Battlefield

Historically, the battlefield endeavour has always been to **reduce risk to the combatant** without diluting his impact. From Alexander the Great's Macedonian phalanx of elite soldiers with up to six-metre long spears, the long tilting-lance that provided both distance and security for a knight, the range provided by gun powder and the rifle, the protection afforded by a tank and the weaponisation of aircraft, the diversity of means has grown with technology. Now, with the widespread employment of unmanned systems, we are witnessing the **democratisation of airspace and a minimisation of risk to the combatant.**

Technology transformation of the modern battlefield is currently being driven by the increasing use of drone warfare, which is emerging as a critical component of war fighting across the globe. The incorporation of artificial intelligence (AI) in military weapon systems is producing new and smart weapons that redefine how the combat force is projected on a battlefield. Weapon systems are increasingly getting smaller, more flexible, more precise, more intelligent, and more robust. Loiter munitions and its variant, kamikaze drones, are the most recent example in this evolution. Loitering capability of these munitions allows them to detect and track potential targets for an extended period before engagement.

Drone warfare represents a paradigm shift in military engagement, characterized by the use of robotic systems to conduct military operations. This encompasses a diverse range



Pictured is the launching of two AeroVironment Switchblades, an expendable miniature loitering munition UAV used for reconnaissance and engaging targets with a warhead the equivalent of a 40mm grenade. 14 June 2021 (photo US Army AMR DEC Public Affairs commons.wikimedia.org)

of platforms, including Unmanned Combat Aerial Vehicles (UCAVs), Unmanned Aerial Vehicles (UAVs), Unmanned Surface Vehicles (USVs), and Unmanned Ground Vehicles (UGVs). The term “**drone**” itself has undergone a significant evolution. Initially, it referred to remotely controlled aircraft primarily utilised for gunnery practice. However, today, it encompasses an expansive array of devices, from inexpensive, weaponised recreational multi-copters to sophisticated, jet-sized aircraft capable of both, intelligence, surveillance, and reconnaissance (ISR) missions as also strike functions, and often costing millions of dollars.

The North Atlantic Treaty Organisation (NATO) defines **drone warfare as the employment of UAVs to execute military operations, including both surveillance and targeted strikes**. The United States military more commonly refers to these systems as Unmanned Aerial Vehicles (UAVs) or Unmanned Aircraft Systems (UASs), with the latter term emphasising the integral role of the ground control element in the overall operational framework. Drones operating in this context can be broadly categorised based on their function and characteristics. They can be armed or unarmed, deployed for ISR or direct attack, designed to be recovered after a mission or serve as one-way attack (OWA) systems that self-destruct upon impact. Furthermore, they can be remotely piloted, often with first-person view (FPV) goggles (and commonly termed as Kamikaze drones), or programmed to operate autonomously, functioning as loiter munitions that search for predefined targets.

Defining Loiter Munitions and Kamikaze Drones

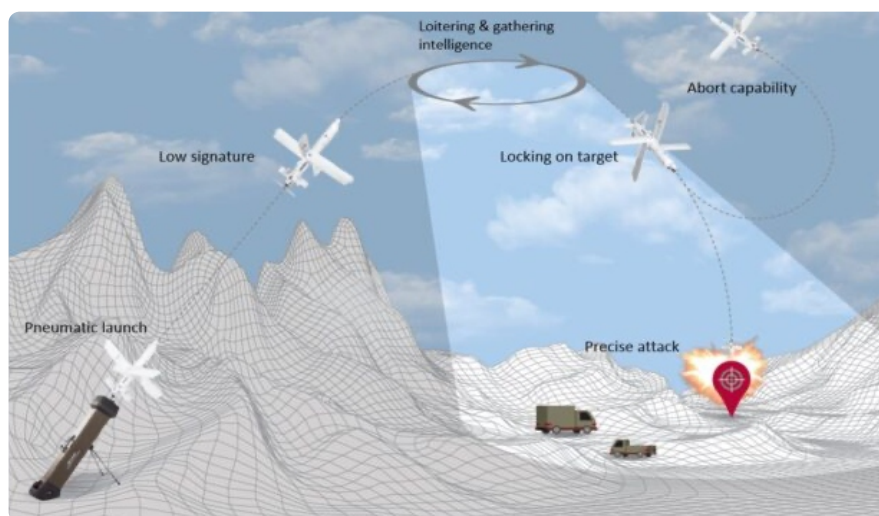
Loiter Munitions are unmanned aerial vehicles armed with explosive warheads. Broadly speaking, loiter

munitions are suicide drones which have a high degree of autonomy and carry explosive payload onboard. Unlike traditional combat drones, which carry weapons, loiter munitions are weapons themselves. In concept, loiter munitions work like cruise missiles but can loiter in flight like drones for extended durations while scanning for targets, and then precisely strike upon command/recognising a target. But the human input in these systems, from launch to engagement, is far less than that of drones. In practice, the extent of autonomy in such munitions varies depending upon the level of human control desired as per the threat environment. But the working principle remains the same for all loiter munitions. If conditions change, operators can abort, redirect, or resume the mission, granting remarkable tactical flexibility.

One of the earliest examples of loiter munitions in modern history is **Israel's Harpy drone**. Harpy drones were designed to loiter over a wide area,

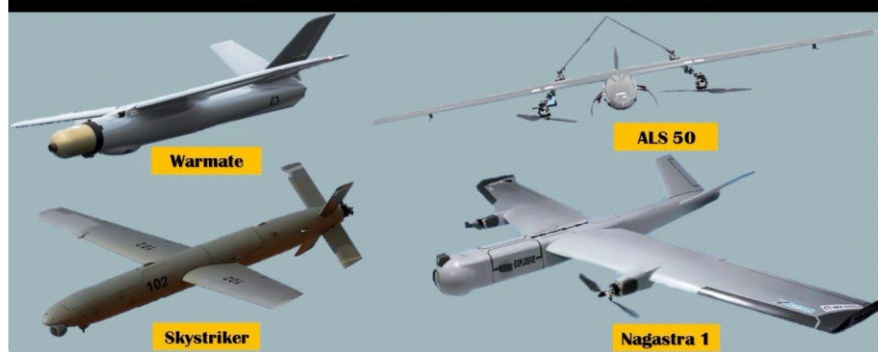
search out radio emissions, and then engage the source of radio emissions by hitting the target. Thus, Harpy drones were designed to be used for suppressing/destroying enemy air defences (SEAD/DEAD), an approach followed by radar-homing missiles like US HARM. However, unlike human-directed anti-radiation missiles following a well-directed flight path, radar-homing loiter munitions have less or no reliance on a human operator, can loiter over the target zone for a longer time, and utilise a way-point flight path for exploiting the vulnerabilities in enemy's defences.

In general, loiter munitions offer some advantages over traditional weapon systems. Firstly, they offer extensive launch and engagement capability. These weapons can be launched from land, air, and sea and can be integrated with a variety of launch mechanisms ranging from man-portable to mechanical carriers. At the tactical level, loiter munitions have



Working process diagram for loiter munitions (credit researchgate.net)

Rapid induction of Loitering Munitions Into Indian Armed Forces



(Image credit <https://indiandefenseanalysis.wordpress.com/>)

significantly augmented over-the-horizon targeting capability. Therefore, these systems can operate independently without relying on the sensor coverage of other units and, on certain occasions, can be used beyond line-of-sight sensor coverage. Secondly, these weapons are cheap, smaller in size, and thus can be widely deployed at a wider scale across the battlefield. On the economic parameter, loiter munitions are far cheaper than cruise missiles and anti-tank guided missiles (ATGMs). For example, Switchblade loiter munitions, with a per unit price tag of \$6000, are far cheaper than Javelin (\$176000) and Hellfire (\$150000) missiles. Another interesting feature of these munitions is their **ability to be re-used** if they have not engaged a feasible target. Many loiter munitions can autonomously return to the launch position for re-use, thus saving money. Thirdly, these munitions offer an enhanced distinguishing capability to **differentiate potential targets from non-combatants**. Unlike mortars and artillery, which cannot discriminate between

combatant and non-combatant and follow predictable firing trajectories, these munitions can identify a target and formulate feasible engagement sequences. Some loiter munitions have **wave-off capability**, which essentially allows the operator to abort a previously assigned target and re-engage a more suitable target if necessary. Moreover, few of these munitions, like Switchblade, have a forward-facing blast that ensures targeted engagement with **minimum collateral impact**. Lastly, these are hard to detect and intercept. These drones are usually made up of composite structures and are smaller in size than traditional cruise missiles. Consequently, they have low radar cross-section (RCS) and cannot be detected easily and timely by radars and passive sensors.

With these munitions being cheap and easy to produce, they can be used to saturate enemy air defences. The features of **Loiter Munitions** can thus be summarised as:-

- Ability to remain airborne ('loiter') over a target zone and have varied endurance from 15 minutes to several hours.
- Surveillance and real-time intelligence collection via onboard sensors (electro-optical, infrared, or even radar).
- Precision strike capability with minimal collateral damage.
- Remote or autonomous operation, with mission parameters adjustable mid-flight.
- Cost-effective compared to crewed aircraft and many categories of missiles.
- Deployment via ground, air or sea launchers.

Operationally, Loiter Munitions are deployed in the following manner:-

- **Persistent Surveillance:** Deployed to hover over battle zones, silently watching for valuable or fleeting targets.
- **Target Confirmation:** Operators use onboard cameras and sensors to confirm and select targets in real-time.
- **Engagement Flexibility:** Can abort an attack or shift to a higher-priority target at any time, maximizing mission value.
- **SEAD Operations:** Frequently used to hunt and destroy enemy radar and air defence systems without immediate commitment.
- **Coordinated Attacks:** Multiple units can loiter at once, providing layered or staggered strikes.
- **Missions:** Suitable for pre-planned or reactive missions where

intelligence collection is necessary before engagement.

- **Remote Control:** Controlled by trained operators, often from significant distances and sometimes supported by ground or air units.
- **Platform Launch:** Launched from the ground, vehicle mount, ships or larger aircraft, depending on range and endurance requirements.

Kamikaze drones, a terminology inspired by World War II Japanese suicide missions, are a **subset of loiter munitions** designed explicitly for **one-way attacks** and are typically single-use, self-destructive unmanned systems designed to crash into targets and detonate. Their operational design prioritises simplicity and mass deployment over prolonged surveillance. A recent variant of Kamikaze based on the piloting methodology are the **First Person View (FPV) drones**, which refer to any unmanned aerial platform where the operator flies the drone using a real-time video feed from the onboard camera, viewed through goggles or a screen. This gives an immersive, pilot's eye view for highly precise manual control. Originally used for reconnaissance or racing, FPV drones are increasingly adapted for attack, creating a hybrid class of FPV kamikaze drones.

FPV kamikaze drones are often smaller, cheaper, and less sophisticated than military-grade loiter munitions. Pilots manually navigate these drones in real time toward targets with high precision, making them especially effective in close combat or complex environments, such as urban warfare. Because many FPV kamikaze drones are adapted from commercial or racing drones, they can be rapidly produced and modified for specific missions. They are typically limited by range, endurance, and payload due to

smaller size and lighter batteries, and are usually effective only against light vehicles, equipment, or personnel.

The **distinctive characteristics of Kamikaze drones** are:-

- Single-use, self-destructive nature.
- Small size and low radar profile.
- Deployable from mobile tubes, vehicles or even larger UAVs.
- Can be guided by an operator or operate autonomously.
- Designed to evade traditional air defences and strike in surprise attacks.

Operationally, Kamikaze drones are deployed as under:

- **One-way Attack Missions:** Deployed primarily for single, predetermined strike missions, often against static or semi-static targets.
- **Immediate Engagement:** Frequently sent directly toward identified targets based on prior intelligence, minimising loiter time.
- **Swarming Attacks:** Often used in large salvos or swarms to saturate enemy air defences and overwhelm point defence systems.
- **Autonomous Striking:** Many models feature basic autonomy and once programmed, they find and attack targets with minimal operator input.
- **Deployment:** Enable quick, saturation assaults with minimal setup or pre-launch requirements.
- **Launch:** Can be fielded by small infantry teams, launched from tubes, vehicles, or ships for close-range or tactical strikes.
- **Lower-Cost Saturation:** Their relative affordability allows deployment in significant numbers to maximise the probability of breaching defences.

Tactical Summary. While “**loiter munitions**” and “**kamikaze drones**” are often used interchangeably, they differ in operational tactics and deployment approaches. The distinctions are shaped by their design intentions, levels of autonomy, and battlefield roles and can be summarised as under:-

- **Loiter munitions** excel in roles requiring patient observation, dynamic targeting, and mission flexibility. They are valuable for hunting time-sensitive, high-value, or fleeting targets.
- **Kamikaze drones** are best for rapid, massed attacks or when intelligence on targets is already very credible, and overwhelming defensive systems through sheer numbers is desired.

Operational Impact

The widespread proliferation of drone technology and the extensive use of **Loiter Munitions** potentially increases instability and the likelihood of conflict. The relatively low cost and increasing capabilities of ‘**kinetic attack drones**’ **lowers the threshold for the use of force**, making military action a more accessible option for a large number of states and non-state actors. What has become evident in recent years is that, the **stand-off mode of waging contact war** made easy by information age technology, is becoming the **preferred form of engagement** in both asymmetrical and near peer conflicts.

In asymmetrical conflicts, the State power delivers deterrent punishment to non-state actors using a hybrid mix of vectors including large scale use of kinetic drones, without putting personnel or equipment at risk. In view of the easy availability of these

resources, non-state actors respond in kind, lacking other more complex means. In near peer conflicts, escalation to a full-fledged conventional conflict using traditional weapon systems, only increases the costs without the distinct capability advantage to achieve permanent objectives, and is hence not acceptable. In such situations, **stand-off drone/ missile attacks satisfy the need and effectiveness of response while reducing the risk of escalation.**

While the use of drones in the battlefield grows exponentially, it is unlikely to displace traditional arms. In a July 2024 interview with *The Economist*, the **commander of Ukraine's new drone warfare service** stated that drone warfare represents, *"the most decisive change in military organisation since the creation of air forces in the beginning of the 20th century.... [but] military operations still depend on combined arms, and other kinds of troops will continue to be just as important."* In simple terms, **kinetic drones have democratised the airspace** providing capability to a soldier to not only see well beyond his immediate vision but also to impact what is being seen. And when this capability gets scaled, the battlefield gets decisively influenced. Thus, Loiter Munitions and Kamikaze drones add significant edge to traditional combined arms operations that **meaningfully changes the tactical and operational balance on the battlefield.**

In modern battlefields, Loiter Munitions/ Kamikaze drones serve numerous critical functions:

- **Counter-armour:** Effectively target tanks, armoured vehicles, and artillery - often from above, where the armour is weaker.
- **Suppression of enemy air defences (SEAD):** Destroy radar sites or anti-aircraft missile batteries, paving the way for other assets.
- **High-value target elimination:** Strike enemy leadership, command posts, or supply convoys with rapid, surgical precision.

- **Swarm attacks:** Overwhelm air defence systems by deploying large numbers simultaneously.
- **Reconnaissance-attack hybrid operations:** Gather intelligence and execute terminal attack once a target of opportunity appears.

The **advantages that Loiter Munitions / Kamikaze drones offer** over traditional weapon systems can be encapsulated as under.

Characteristics	Loiter Munitions/ Kamikaze Drones	Traditional Missiles/ Drones
Target Flexibility	Can switch, wait, or abort mission in real time	Limited flexibility
Persistence	Remain airborne, surveillance before strike	Attack after launch
Collateral Damage Risk	Low, due to visual confirmation and precision	Higher, risk of wrong targeting/ dynamic target
Cost & Logistics	Relatively cheap, easy to deploy	Often expensive and complex
Survivability	No/ less risk to human operator	Risk based on launch platform
Stealth and Detection	Small, low radar signature, hard to detect	Large, more easily detected
Adaptability	Rapid technological innovation and upgrades	Slower upgrade cycles

Transforming the Modern Battlefield

The Russia-Ukraine war exemplifies the best example in the use of Loiter Munition/Kamikaze drones in conventional State vs State conflict. Both Russian and Ukrainian forces have deployed loiter munitions extensively. Drones like the Russian Lancet and Ukrainian Switchblade series have significantly changed anti-armour tactics and targeting of artillery batteries. Do-it-yourself (DIY) kamikaze drones equipped with first-person-view (FPV) cameras enable low-cost but highly effective precision attacks down to the platoon level. Their mass deployment has forced changes in manoeuvre tactics, dispersal of vehicles, and even created *"drone kill zones"* along frontlines. The battlefield impact of loiter munitions can be gauged from the following:

- **Dominance in kills:** By mid-2024, drones (including kamikaze types) were responsible for nearly **70% of Russian troop casualties and 75% of equipment losses**-far exceeding the traditional impact of artillery or tanks. Ukraine's adaptation of cheap FPV drones has allowed destruction of expensive Russian equipment at minimal cost-for example, disabling a \$24 million air defence system with a drone costing less than \$2,000.

- **Creation of 'kill zones':** Entire stretches of the front have become no-go areas for vehicles and troop concentrations due to the constant threat from loiter munitions.
- **Decentralisation of Forces:** Armoured formations and large vehicle columns are forced to disperse, relying on smaller, more difficult-to-detect sub units.

In other examples, in the conflict over Nagorno-Karabakh in 2020, Azerbaijan's use of Harop and other loiter munitions devastated Armenian air defences and armour, contributing decisively to battlefield success. Israel's use of loiter munitions (notably the Harop) has established the benchmark for targeted elimination of air defence systems and mobile missile launchers. Iran's Shahed-136 drones have demonstrated the disruptive power of massed kamikaze drone attacks, overwhelming sophisticated air defences through quantity and unpredictability.

In the Indian context, indigenous loiter munitions such as the SkyStriker and Nagastra-1 have already seen operational use in cross-border strikes during **Operation Sindoor**, targeting both terrorist infrastructure and hardened positions, and are now a key part of India's future military doctrine. Towards this, the Indian Army is rapidly integrating loiter munitions across its field formations to strengthen both tactical and operational capabilities. These systems, such as the indigenously developed Nagastra series and the imported Warmate variants, are being incorporated at several operational levels. Key aspects of organisational integration include:

- **Distributed Unit Integration:** Loiter munitions are being assigned to specialised artillery, infantry, and armoured units to provide organic precision-strike capabilities. Armoured

formations are to be equipped with canister-launched anti-armour loiter munitions (CALM), enabling main battle tanks and infantry fighting vehicles to destroy enemy armour and fortifications at standoff ranges. The scaling, carriage and employment philosophy of these at the unit level will need to be formalised and incorporated in training for maximum effect.

- **Mobile Launch Platforms:** The Army is considering converting platforms such as the Mahindra Armoured Light Specialist Vehicles (ALSVs) and multi-barrel rocket systems like Pinaka into mobile launchers for multi-munition salvos, enabling rapid deployment, mobility, and coordinated "swarm" tactics.
- **Dedicated Control and Training:** Specialised ground control stations and personnel training programmes are being established to manage, operate, and maintain these systems, including robust simulation environments and electronic warfare support. Tactical users receive advanced ISR and precision strike training with these new systems.
- **Battlefield Use:** Field trials simulating real combat conditions, and lessons from operations like **Operation Sindoor** are being assimilated for doctrinal shifts, leading to integration into the Army's modernisation roadmap for greater autonomy, stand-off engagement, and flexibility on the future battlefield.

Doctrinal Fallout and New Tactics

Loiter munitions / Kamikaze drones have compelled armies to rethink old doctrines encompassing the following amongst others:

- **Layered drone strategy:** Combining surveillance, loitering, and strike drones into a multi-tiered kill chain.
- **Combined arms impact:** Loiter munitions force adaptation in armour tactics, air defence allocation, and logistics planning, giving rise to a new form of combined arms warfare where drones are a front-line asset, not merely a supporting system.
- **Rise of distributed operations:** Infantry, tanks, artillery, and logistics convoys now spread out and use camouflage more aggressively to avoid drone strikes.
- **Electronic warfare and countermeasures:** Defending forces invest in jammers, anti-drone guns, and deception tactics to blunt drone attacks.
- **Swarm tactics:** Attacks using dozens or hundreds of drones simultaneously can saturate even modern air-defence systems, altering the offence-defence balance.
- **Hybrid attacks:** Coordination between unarmed surveillance drones, loiter munitions, and traditional artillery magnifies the effectiveness of all three weapon systems.

The proliferation of loiter munitions / Kamikaze drones as also higher classification armed drones has clearly **lowered the threshold of restraint in State vs State hostilities, while also bringing down the barrier to entry for non-state actors**. Considering the reduced risk to personnel, and stand-off drone attacks probably falling in the mid escalation level in the conventional operations spectrum, as also the perceived need for deterrent messaging without

escalating to a full scale conventional conflict, use of drones is only going to witness rapid increase in most State vs State and State vs Non-State hostile engagements.

Future of Loiter Munitions

The technological trends visible in the development of Loiter Munitions indicate the following:

- **Increasing autonomy:** AI-driven target recognition, swarm tactics, mission adjustment on the fly and collaborative engagement are becoming more common.
- **Survivability:** Improved countermeasures against electronic jamming and interception are a continuous process. In this regard, Optical fibre controlled drones are already in use on the battlefield, with the focus of development now being Edge AI on drone platforms to enable operations without external signals and increasing resilience to cyber-attacks and jamming.
- **Greater range and endurance:** Next-generation systems boast hours of loiter and hundreds of kms in range.
- **Miniaturisation:** Smaller, more concealable drones complicate detection and defeat mechanisms.
- **Networked operations:** Integration with broader C4ISR (command, control, communications, computers, intelligence, surveillance, and reconnaissance) networks multiplies their effect.
- **Swarming** algorithms for autonomous group tactics.

Conclusion

Loiter munitions and kamikaze drones have fundamentally transformed the dynamics of war. Their unique ability to combine long-endurance surveillance, on-demand precision strikes, and low-cost deployment, challenges traditional doctrines, upends armour-based strategies, and creates new possibilities, both perilous and promising, for nations and non-state actors alike. As technology advances, their

influence will deepen, making their integration within combined arms, defensive countermeasures, and operational frameworks ever more critical for battlefield success.

Furthermore, exports of these weapon systems are increasingly becoming a tool for projecting geopolitical influence, with countries like China, Türkiye and Iran emerging as significant players in the global arms market. Financially, as per Global Data's **"The Global Military Unmanned Aerial Vehicles (UAV) Market 2022-2032"** report, the global market for loiter munitions was valued at \$247 million in 2022. Projections indicate a growth rate of 5.3% annually to reach \$412 million by 2032, growth driven by increasing demand from regions like Asia-Pacific, which is expected to account for 59.7% of the market over the forecast period.

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Chat GPT and Perplexity: For summarising trends



Major General Ravi Murugan, PVSM, AVSM (Retd), an alumnus of National Defence Academy, Pune was commissioned into the 8th Battalion, The Brigade of Guards in June 1987. He has a Master's Degree in Science from Madras University as also an M Phil from Osmania University. In his 37 years of service, he has fulfilled multiple challenging roles across diverse operational areas. After command of his battalion, the officer commanded an Independent Armoured Brigade and subsequently, a Counter Insurgency Force in J&K. He was also the Defence & Military Attaché in the Embassy of India, Washington DC between June 2016 and July 2019. He has been the Additional Director General Military Operations (B) in Army Headquarters and commanded the Karnataka and Kerala Sub Area before retirement. He is presently in an advisory role with multiple companies and is the Associate Editor of **Medals and Ribbons**.



Maj Gen Ravi Murugan



Havildar Hangpan Dada on the Shamsabari Range - highly motivated and ready for action

HAVILDAR HANGPAN DADA, ASHOK CHAKRA (POSTHUMOUS)

VALIANT LEADER AND IMMORTAL WARRIOR

From the verdant hills of Arunachal Pradesh to the icy heights of the Shamsabari Range in Kashmir, the life of Havildar Hangpan Dada is a saga of unflinching faith, unmatched valour, and supreme sacrifice. An embodiment of grit, humility and patriotism, Dada's journey is an inspiration to soldiers and citizens alike. In the proud history of the Indian Army, the saga of Havildar Hangpan Dada, Ashok Chakra (Posthumous), stands tall as an everlasting tale of courage, faith and duty.

A Humble Beginning Rooted in Values

Hangpan Dada was born on 02 October 1979 in the picturesque village of Borduria, near Khonsa town in Tirap district, Arunachal Pradesh. Belonging to the proud Nocte tribe, Dada grew up in a modest farming family, deeply rooted in Christian faith and community values. His parents instilled in him a strong sense of responsibility, hard work, and service to others.

Known for his athletic stamina, sharp mind and ever-cheerful nature, Dada stood out amongst his kin. His bravery shone even as a child, he once saved a childhood friend Somhang Lamra from drowning in a stream, a sign of the courage that would later define his life. Football was his passion, but wearing the olive-green uniform and serving the country was his

dream, a dream he was determined to realize.

Growing up amid insurgency in Khonsa, he refused to bow down to militant intimidation, earning quiet respect even from those who opposed him. Dada's childhood friend Hanja Matery recalled, *"Those were the days when insurgent groups would demand a portion of the salary of Army personnel residing here. Dada stood against this, refusing to pay, and surprisingly, the insurgents never asked him again."* (Anecdote published in *The Hindu*, August 2016).

The Making of a Soldier

Hangpan Dada joined the Indian Army in 1997, answering the call of duty with boundless enthusiasm. His discipline and physical prowess soon set

him apart. After training, he was inducted into the elite 3rd Battalion, Parachute Regiment (Special Forces) on 20 May 1999. Here, he mastered high-altitude warfare, counter-terror operations, and tactical intelligence gathering in some of the toughest terrain in the country. His exemplary service in various operational theatres for over six years made him a battle-hardened warrior with invaluable field experience.

In 2005, he was permanently transferred to the 4th Battalion, Assam Regiment, honouring his roots in the famed 'Rhinos' fraternity. His deployments in Kargil, Manipur, and other forward areas further sharpened his battle acumen. Colleagues fondly recall Dada as a soldier with immense



The President, Shri Pranab Mukherjee giving away the Highest Gallantry Award Ashoka Chakra to Havildar Hangpan Dada, the Assam Regiment (posthumously), the award received by his wife Mrs. Chasen Lowang Dada, on the occasion of the 68th Republic Day Parade 2017, at Rajpath in New Delhi on January 26, 2017. (photo pib.gov.in)

patience, tactical awareness and unwavering courage, always known to volunteer for the most challenging assignments without hesitation.

Faith was Dada's anchor. Whether in freezing heights or dense jungles, he never missed daily prayers or Bible readings. His moral compass guided his comrades, and he was a mentor beyond rank, counselling young soldiers and reminding them that a true soldier serves with humility and integrity.

The Compassionate Family Man

Behind the warrior's toughness was a deep love for his family. Dada married Smt Chasen Dada, and together they raised two children, daughter Roankhin, now 17 years old, and son Senwang, now aged 14 years. Dada's visits to his home were joyful. His affection towards his children and his desire to see them educated and become principled individuals reflected his deep love for family. He often spoke about his children with pride to his comrades, motivating younger soldiers to value both their duty and their families.

A senior officer from 4 ASSAM who

served as a young Platoon Commander with Havildar Hangpan Dada in Lucknow and Manipur recalls how Dada assisted his distant family members in getting quality medical treatment at private hospitals there. Often, Dada would seek permission from the unit Adjutant to help villagers from Tirap who used to visit him for critical surgeries in Lucknow. In fact, a number of them were not even his blood relatives. Notwithstanding, he assisted them financially as well. These small acts reflected his strong family and community values.

One of Dada's preferred activities was interacting with his fellow soldiers, his neighbours in local churches and unit gatherings. He was known to share

gripping tales of field experiences, emphasizing the importance of courage, faith and adherence to the righteous path. Dada would counsel young recruits, cautioning them against vices, encouraging them to be physically fit, and to always uphold the dignity of the uniform. His ability to combine tactical brilliance with spiritual grounding made him the heartbeat of every sub unit he served in.

Volunteering for the Frontlines: The True Warrior Spirit

Hangpan Dada volunteered for deployment in the volatile Kupwara Sector in Jammu and Kashmir, to serve with 35 Rashtriya Rifles (Assam Regiment). His decision was driven by a soldier's innate calling; to serve where the nation needed him the most. As recalled by one of his Company Commander's in 4 ASSAM, Dada's presence in the unit was synonymous with operational readiness. He possessed an exceptional understanding of difficult terrain, snowbound areas and infiltration routes, making him an invaluable asset during counter-infiltration operations.

Operation Sabu Dada: Where a Legend was Forged

The defining moment of Dada's illustrious career came in May 2016, during **Operation Sabu Dada** in the Shamshabari Range of Kupwara. In May 2016, intelligence warned of heavily armed terrorists infiltrating through the difficult Bangus Valley route. Dada, attached to the Sabu Nala post, was part of a coordinated cordon-and-search operation near Meera Spur, led by Major Amirtha Raj, Naib Subedar Bipul Neog, and Havildar Shivanand. On 26 May, Dada's section came under heavy fire. Displaying uncommon aggression under fire, Dada pressed forward, eliminating a terrorist in close quarters, then pursued and neutralised a second terrorist.

By late afternoon, he killed a third terrorist in hand-to-hand combat

after hours of engagement. In the final moments, despite being grievously wounded, Dada pushed on and killed the fourth terrorist before making the supreme sacrifice. Dada accounted for the elimination of four terrorists, and his actions single-handedly ensured operational success and prevented infiltration into Indian territory.

Ashok Chakra: The Nation's Highest Honour

On 15 August 2016, for his unparalleled courage, indomitable spirit, and supreme sacrifice in the face of grave danger, Havildar Hangpan Dada was posthumously awarded the Ashok Chakra, India's highest peacetime gallantry award. Keeping his memory alive and strong, **35 Rashtriya Rifles** and **4 ASSAM**, his unit continue to narrate his tale of valour during pre-induction briefings, cementing his place in regimental folklore.

Words from his Superiors

Major Amirtha Raj, who commanded Dada's Company during Operation Sabu, said *"Dada led from the front. His courage, quick decision-making, and disregard for personal safety saved many lives that day."*

Naib Subedar Bipul Neog, who operated alongside Dada, noted, *"Even after being grievously wounded, Dada pushed himself beyond physical limits to ensure mission success."*

Legacy of Valour: Inspiring Generations

Today, Dada's legacy transcends the boundaries of military barracks and reaches the hearts of every Indian. In his native village of Borduria, a memorial stands tall, reminding young boys and girls of the power of commitment. Arunachal Pradesh has honoured his memory with tournaments like the **Hangpan Dada Memorial Football and Volleyball Trophy**, inspiring youth. Educational

programmes in the region often highlight Dada's life, motivating students to rise above adversity and serve the nation. The **Hangpan Dada Memorial Bridge** in Upper Subansiri district stands tall as a reminder of his bravery.

The Assam Regimental Centre named its main office block after Dada, immortalising his service as part of Regimental History. Delta Company 4 ASSAM commemorates the association with this remarkable soldier by naming the company **DADA COMPANY**, to honour him. The Colonel of the Assam Regiment's Secretariat has also produced a short movie **"DADA: THE WARRIOR SPIRIT"**, a fitting tribute to its beloved hero which will remain a permanent symbol of remembrance. The movie has garnered more than a million views on YouTube and on different official channels of the Indian Army.

His wife, Smt Chasen Dada, continues to be a symbol of resilience and dignity, raising Roankhin and Senwang with the same values of courage and faith that defined Dada. The family's grace in the face of loss speaks volumes of the enduring spirit of India's soldier families.

Lessons from a True Leader

Dada's life offers timeless lessons - of leadership without arrogance; of courage tempered with compassion; and of faith unshaken by circumstances. He proved that true greatness is not in personal gain, but in selfless service. His ability to maintain humility amidst accolades, his commitment to comradeship, and his unrelenting faith in God shaped him into a complete soldier. His juniors remember him as a man who led from the front, protected his team

like a guardian, and always stood as the first line of defence, both in battle and in life.

The Immortal Flame

Havildar Hangpan Dada's story is one of inspiration, valour on icy frontiers, commitment and sacrifice for the nation. More than a name, Dada is an eternal flame, forever on guard in India's collective memory. His courage on the battlefield, humility in service, and love for his family ensure that his story is not just remembered, but lived by those he inspired.

In every post, every parade ground, and every Regimental story session, Dada's name echoes as an example to emulate. His memory lives in the salutes of young recruits, in the prayers of his church community, and in the hearts of his clan. He remains an icon of valour, righteousness, and hope.

"Tagra Raho!"



Lt Col Krishna Bahadur

Lieutenant Colonel Krishna Bahadur Saxena was commissioned into 4 ASSAM in December 2011 from Indian Military Academy, Dehradun. He is presently serving with the unit.

GRIT AND SWEAT ON THE TRACK

SUBEDAR AVINASH SABLE,
AVSM, VSM, MAHAR REGIMENT

JC-572305Y Subedar Sable Avinash Mukund, AVSM, VSM of 5 MAHAR (BORDERS), a renowned name in the athletics arena across the world, is an Indian track and field athlete whose main event is 3000 metres Steeplechase. **This is an inspiring story of his perseverance and commitment.**

Born on 13 September 1994, in the village of Mandwa in Maharashtra's Beed District, Subedar Sable grew up in a family of modest means. He chose to join the Army in order to provide for his family and never really harboured any sporting ambitions. After his recruit training at the Mahar Regimental Centre, Saugor (MP), he joined 5 MAHAR (BORDERS) at Sunny Vale (East Sikkim) in early 2014.

The battalion moved to Lalgah Jattan in May 2014 where Subedar Avinash (then Sepoy) was part of the medical platoon of the battalion. Recognising his unparalleled endurance, stamina and tremendous will power, he was absorbed in the battalion Ghatak Platoon in early 2015 and took part in the Cambrian Patrol Competition which stood first in the Divisional Inter Battalion Cambrian Patrol Competition in 2016. With perseverance and motivation in long distance running, he worked hard and excelled as part of the battalion Cross Country Team, wherein he stood overall first in the Divisional Inter Battalion Cross Country Competition.

He had only trained for a year before he was selected as a member of the winning Services Cross Country Team in the National Cross Country Championship. His exceptional performance during the 23rd Asian Athletics Championships 2019 at Doha (Qatar), earned him an 'Out of Turn' promotion



Avinash Sable, 3000 metres steeplechase at the 2020 Summer Olympic Games, Tokyo (photo commons.wikimedia.org)

to the rank of **Naib Subedar**. On winning the Gold Medal at Asian Games 2022 in Hangzhou in 3000 metres Steeplechase, he was once again promoted '**Out of Turn**' to the rank of **Subedar** and was subsequently conferred with the prestigious **Arjuna Award** in November 2022 by the Hon'ble President of India. He is also the first Junior Commissioned Officer (JCO) to be awarded both **AVSM** and **VSM**.

The JCO has excelled on the world stage in the 3000 metres Steeplechase. He represented India at the 2020 Olympics and narrowly missed advancing to the final. At the 2022 Commonwealth Games, he made history by winning the Silver Medal, becoming the first Indian Steeplechaser to win a medal at an international event. In 2023, he reigned supreme in Asia, securing Gold at the Asian Athletics Championships, Bangkok and at the Asian Games, Hangzhou. In 2024, he qualified for the Paris Olympics and became the first Indian Steeplechaser to qualify for the finals of the event, securing 11th Position. He continues to inspire athletes across the nation, and recently won Gold at the Asian Athletics Championships, Korea in May 2025.

Subedar Sable is the undisputed national record holder in multiple distance events. Other than **3000 metres Steeplechase National Record (which he broke 10 times)**, he set the National Record in **Half Marathon** clocking 60 minutes, 30 seconds in 2020. Additionally, he shattered a 31-year-old National Record in the **5000 metres Track Event** in California in 2022, an event in which he also bagged a **Silver Medal in the Asian Games 2022, Hangzhou**.

So, Who is Avinash Sable?

Avinash comes from a very modest family from Beed District of Maharashtra. His parents gave him a wonderful name –

'Avinash' which means a person who cannot be defeated. His name itself is an inspiration for Avinash. Avinash used to run to school barefoot, which was five to six kms from his home. He loved to do so while most other kids either walked or went on bicycle. His class teacher and some of his friends noted with interest that he enjoyed running and never ever complained about the distances that he covered daily. In Class 3, his friends challenged him to compete with another boy who was in Class 6th. It was a 500 metres race and Avinash won comfortably. Running was and will always remain his passion.

In school, Sable took part in a few running competitions and was fairly good, but it was actually the Army that got him into a higher competitive mode. Cross country is an event in which every Army man participates. Due to his exceptional performance in cross country, Avinash was selected for the Ghatak Platoon of 5 MAHAR (BORDERS). The training of the Ghatak Platoon was vigorous

and challenging and it involved running over long distances donning heavy boots with the rifle and load on the back. Sable's natural orientation was towards cross country running, he would get up at about 0330 hours every day, much earlier than his comrades, and go for a run. The hot summer in Lalgarh Jattan did not deter him from practising for the cross country event. The turning point in his running career came about very early when he came first in the battalion cross country championship. Avinash realized that he had the potential to scale greater heights. He made it to the Services Championship after going through cross country competitions at various levels.

The Switch to Steeplechase

Cross Country, as an event offered little scope since it was not recognized at the national and international level. That is when Sable met coach Amrish Kumar who was himself, at one point in time, a 3000 metres Steeplechase runner. He recommended that Avinash switch to Steeplechase. He trained



Avinash Sable, experienced a minor injury after falling during the Monaco Diamond League in July 2025 (photo <https://thebridge.in/athletics/avinash-sable-injury-monaco-fall-coach-assures-quick-recovery-53858>)



Avinash Mukund Sable celebrates with the National Flag after winning the men's 3000-metres steeplechase final event at the 2023 Asian Games in Hangzhou (photo PTI) Inset: Avinash Sable at the podium after receiving the Gold Medal, Asian Games 2023 (photo indiatimes.com)

Sable for about four months and in that year itself, Sable won the Nationals. Avinash stated “I owe a lot to coach Amrish Kumar for identifying my potential, encouraging me and training me to become a champion”.

Army, the Great Motivator

The Indian Army moulded Avinash into an international athlete. The strict discipline, the physical and mental robustness which is the bedrock of Army training, the will to win and the encouragement that he got from his unit 5 MAHAR (BORDERS) was instrumental in shaping his athletic career. The Army built in him a ‘Never Say Die’ attitude and also provided him with a wealth of opportunities.

Milestone Moments

When Avinash broke the National Record in 2018, it really was a terrific personal achievement. In the process, he broke a 30 year old Steeplechase National Record. At that point in time, Sable’s ambition was limited to winning at the national level. But Nicholai, a coach from Belarus saw his potential and predicted that with hard work and perseverance he would go very far.

The second milestone moment was

Sable’s participation in the Tokyo Olympics. Unfortunately, while he was at the peak of his performance, he was afflicted by the Covid virus twice before the mega event which left him weak. Though he did not perform too well at Tokyo, he broke the National Record again.

The third milestone event was the Commonwealth Games 2022. This was the most memorable of all since Avinash managed to get past two out of three Kenyans and clinched the Silver. The Kenyans had always been winning the 3000 metres Steeple Chase. Avinash Sable recalls, “I remember that I had made up my mind that out of the three Kenyans in the fray, all with fantastic records to their names, I must defeat at

least one. When the race started, the Kenyans were leading in the first round and were all ahead of me but I was determined to follow close behind them and kept at their heels. The thought that came to my mind then was that I have nothing to lose since I have already achieved a fair bit so I must push myself harder. In the last 500 metres I crossed two of them and in the final 200 metres I was in a spirited competition with a Kenyan who pipped me to the gold by micro seconds”.

There were more milestone achievements thereafter too. Subedar Avinash Sable further took part in six international events in which he won many medals including Gold at Asian Athletic Championship, South Korea as recent as in May 2025.

Learning from Setbacks

In 2018, just before the Asian Games, Sable sustained an injury and could not participate in that event. He was disappointed but the spirit and desire to excel goaded him to pursue his ultimate aim of competing in the Olympics. Avinash acknowledges that in his sporting career, he has learnt more from failures than from successes. To that extent, the **Never Say Die** attitude which the Army imbibed in him has and will continue to play a great role in his sporting career.

Being mentally tough is probably as or even more important than being physically tough. When the body reaches its limit, it is the mind that pushes it to achieve the impossible. Moreover, Steeple Chase is not an ordinary race. There are 28 hurdles to negotiate and seven water bodies to jump over in 7.5 laps of a 400 metres track. The effort required is tremendous.

His message for young sports enthusiasts of the country.

“When it comes to hard work, it is my view that there is none better than the Indian. For him or her, the sky and beyond is the limit. All that is required is a positive

mindset, fortitude and clear focus to achieve the highest goals. For every budding Indian Athlete the ultimate goal must be to win a medal in the Olympics”.

Subedar Avinash Sable, AVSM, VSM is preparing to take part in the Olympics for the third time at Los Angeles 2028 having already participated in Tokyo Olympics 2020 and Paris Olympics 2024. **Team Medals and Ribbons**, the Army fraternity and the entire country wishes him the very best in his endeavours.



Maj Gen Binoy Poonnen

Major General Binoy Poonnen, AVSM, VSM (Retd), commissioned in 1978 into 13 MAHLAR as a second generation Army officer went on to command his battalion from 1997 to 2000. During his illustrious service, he attended many professional courses to include Defence Services Staff College, Higher Command and National Defence College courses. After commanding a mountain brigade in an operational area, he commanded Mountain Division in a Counter Insurgency role in Manipur. He has served in Sri Lanka as part of IPKF, and has also done stints in Bhutan and Lebanon. He has handled defence cooperation and defence diplomacy aspects with foreign countries during his tenure in Army Headquarters. After 37 years of dedicated service in the Indian Army, he has settled in Mhow, Madhya Pradesh and is the Secretary of Mhow Analysis and Research Society, a Mhow based Study Group.

Achievements of Subedar Avinash Sable, AVSM, VSM

SER NO	EVENTS	DURATION/ DATE	ACHIEVEMENT
1	57th National Open Athletics Championship 2017 at Chennai, Tamil Nadu (3000 metres steeplechase).	September 2017	Gold Medal
2	58th National Open Athletics Championship 2018 at Kalinga Stadium, Bhubaneswar, Odisha (3000 metres steeplechase).	September 2018	1st Position. New National Record
3	23rd Asian Athletics Championships 2019 at Doha, Qatar in 3000 metres Steeplechase.	April 2019	Silver Medal
4	Airtel Delhi Half Marathon 2020 (ADHM).	November 2020	1st Position among Indians, ' New National Record ' with a timing of 60:30
5	Tokyo Olympics 2020	July 2021	Clocked 8:18:12 in heat number 2 to finish 7th and bettered his earlier national record of 8:20:20 and ended seventh best.
6	Indian Grand Prix – II, Kerala.	23 March 2022	Gold Medal . New national record in men's 3000 metres Steeplechase.
7	Sound Running Track Meet in San Juan Capistrano, USA – 5000 metres Track.	May 2022	Broke 30 years old record in men's 5000 metres Track with a timing of 13:25:65 and qualified for World Championship 2022.
8	Commonwealth Games, Birmingham.	August 2022	Set a new National Record of 8:11:20 and won the Silver Medal . It was the ninth time he had set the national record.
9	Asian Games, Hangzhou – 3000 metres Steeplechase.	2023	Gold Medal
10	Asian Games, Hangzhou – 5000 metres Track.	2023	Silver Medal
11	Award from The President for outstanding performance in sports and games.	30 November 2022	Arjuna Award
12	Republic Day 2024	26 January 2024	AVSM
13	Portland Track Festival, USA.	08 June 2024	Silver Medal
14	Paris Diamond League	July 2024	Sixth Position (Set a new National Record with a timing of 08:09.91)
15	Paris Olympics 2024	August 2024	11th Position in Finals
16	Asian Athletics Championships 2025, South Korea	May 2025	Gold Medal

RIDING TO THE HIGHEST MOTORABLE PASS

The greatest pleasure in life is doing what people say you cannot do! On a motorcycle, it is a truly exhilarating feeling cruising down a highway with the world around you whizzing by. It only gets better when you go off roading at lofty heights. The senses are greatly heightened when riding a motorcycle; watching a golden sun rising majestically in slow motion or beholding spectacular scenery in the distance brings immeasurable joy to the heart. In short, no time is wasted when you spend it on two wheels.

It is said that when your memories overtake your dreams, you start to grow old. At the age of 65, I still had several dreams – one of which was to ride a motorcycle to **Umling La Pass**, the highest motorable road in the world.

For long I had been the proud owner of a Royal Enfield Thunderbird 500 and had undertaken several long-distance rides. That included the bikers' Mecca of Ladakh and the towering heights of Khardung La Pass – then regarded as the highest motorable road in the world. There had been several other interesting rides in the hills and the plains, during which the Thunderbird had been a perfect companion and had never let me down. However, it was growing old, and it was time to get a new bike if I were to take on Umling La.

Just then Royal Enfield announced the launch of the Himalayan 450, which caught my interest as the next adventure bike to possess – it seemed to have the specifications I was looking for. I booked the Himalayan 450 in the attractive Hanle Black colour scheme and, with a heavy heart, let the Thunderbird go. A month later I received delivery of the new bike.

During the initial rides, the sheer power and control that the bike gives you in terms of handling and braking had me grinning from ear to ear. Royal Enfield had evidently out done



(Top) The author at Umling La - his Himalayan 450 in the foreground.
(Bottom) Riding the Himalayan on the Hanle Plains.

itself. Rides to the Kumaon Hills were undertaken to get used to mountain terrain. The engine purred brilliantly belting out adequate power and the gear changes were a dream as I hugged the winding roads. It was also a treat to catch the glorious spectacle of the fabled powdery peaks of Nanda Devi, Trishul and Panchachuli.

The next big challenge was to ride up to Umling La Pass at an altitude of 19024 feet (5799 metres). When I last rode up to Ladakh in 2017, this road was still under construction. Someone asked as to why I now want to ride up Umling La; the answer was simple: "because it's there!" If Umling La was to be summited, necessary pre-ride preparations had to be done. Prime among these was to convert the stock rims on the Himalayan 450 to take on tubeless tyres for better puncture management. With this, other modifications and servicing complete, I was ready to roll!

After meeting with NDA course mates en route at Patiala, Jammu and Srinagar, accompanied by five close friends in two cars, I reached Leh on my bike. Fourth time in Ladakh, and I was once again awestruck by the imposing mountains, which are both untamed and spectacular. Their snow-capped peaks form a breathtaking backdrop to stunning views and the tranquillity of the highland setting

provide a surreal backdrop for bikers, motorists, outdoor enthusiasts and nature lovers alike.

The then Hon'ble Lieutenant Governor of Ladakh, Brigadier (Dr) BD Mishra is from the Madras Regiment, which is affiliated with *INS Mysore*. I called on him in my capacity as the Commissioning Executive Officer of the *Mysore*. He was a warm and affable host, and I spent some interesting moments with him.

After acclimatizing at Leh we headed to Hanle, which is at an altitude of almost 15000 feet. The road was unimaginably smooth and the speedometer effortlessly touched 90 km per hour on several occasions. Other members of my team too had their share of fun after they had mustered enough courage to ride pillion behind me!

We set off the next day towards Umling La Pass via the scenic, albeit longer and more adventurous route through Norbu La Pass (17385 feet). It was off roading for most of the way, and the challenge was to stay on the bike as recovering from a fall at that high altitude could be a challenge. As we threw up dust riding cross country across the Hanle Plains at 16000 feet, the landscape was breathtaking, with fluffy clouds floating gently above the stark mountains surrounding us. The regular sightings of wild asses added to the experience.

Fortunately, the weather remained mostly dry, and three hours later our excited and joyous party of six was on the Umling La Pass amidst a flurry of snowflakes. We were higher than Everest Base Camp as also higher than the highest mountain in Europe. It was an absolutely **Top of the World** feeling!

It is never advisable to spend a minute longer than necessary in that rarefied atmosphere. After the customary

photographs, victory signs and indulging in a cheeky cup of coffee, we headed back to Hanle, this time on the hard topped route via Photi La Pass, sixth highest in the world at 18124 feet.

We next visited Tso Moriri and then headed back via the Manali route. This had its own set of trials and travails thrown up by long stretches of non-existent roads, high mountain passes and water crossings that were rather daunting. This was exacerbated by the heavy truck traffic that was in no mood to give way to lesser vehicles! Enduring rain, sleet and snow in addition to the treacherous roads called for a high level of physical and mental toughness, besides the astute skills of biking in the mountains. Fortunately, man and machine came through with flying colours.

After such an exciting trip, one realises that the most beautiful things in life are not just things, they are people and places, memories and pictures, they are feelings and moments, and smiles and laughter. One never truly knows the value of a moment until it becomes a memory. Riding up to Umling La Pass is

one such memory that will remain etched in our minds forever.

Most of us always romanticise the 'road not taken', but it's more important to spend time appreciating the beauty of the road you did take. One needs to recognise the tiny moments of joy, the tiny beauties, and the wonders that lie on the path taken. There was a cornucopia of these in the mountains of Ladakh that made it an amazing experience.

While I did ride solo, there were five close friends accompanying me in cars. They were my logistics support, my constant source of encouragement, and provided a helping hand to pull me out of tricky situations. I acknowledge with deep gratitude that Umling La would not have been possible without them.

*(This article is an edited version of **Riding High** by Captain (IN) Sunil David (retd) first published in **Quarterdeck** 2024, an annual magazine published by the Directorate of Naval Veterans, Naval Headquarters, New Delhi; and has been published herein with their consent).*



Captain (IN) Sunil David, VSM (retd), a Gold Medallist from NDA, is a Gunner and Missile Man at heart. He has commanded three front line warships and has served in coveted appointments such as Director Naval Plans and Naval Assistant to Chief of the Naval Staff. He has an armament degree from the former Soviet Union, has attended the Royal Naval Staff College, UK as also the College of Naval Warfare. Post retirement, he has added to his repertoire 15 years of rich corporate experience. As a veteran, he loves to travel, especially on his motorcycle. He believes that travel increases one's knowledge and widens the intellect.



**Captain (IN)
Sunil David**

THE INDIAN ARMY

CARING AND SHARING LIKE GUARDIAN ANGELS

The Indian Armed Forces have been involved in Humanitarian Assistance and Disaster Relief right since Independence. They have come across as Saviours for thousands of countrymen and have earned the nation's trust and respect. In this article, the author recalls her pleasant encounter with the Army at Nagapattinam after the 2004 Tsunami.

Coming across an old issue of **Medals and Ribbons**, my memory jogged as I chanced upon an article titled '**Black Sunday at Nagapattinam - Tsunami 2004**', written by Major General J Manavalan (Retd) of the Madras Sappers. I had the privilege of encountering this officer (and gentleman) as part of my NDTV assignment covering the tsunami, and its aftermath, at Nagapattinam, Tamil Nadu in December 2004.

The Major General was deployed at that location for rescue and relief. On the beach, early one morning, the military team was calmly engrossed in their tasks. Not far away from these soldiers, the NDTV team (cameraman, camera assistant, helper and myself), stood rooted to the sands, gazing in fear at the swirling black waters of the ocean before us. I approached the Major General and a brief interlude later, he offered to take us out to sea in a small motor boat. He sensed my fear and anxiety and actually offered to accompany us to sea. By now a bundle of nerves, however we trustingly went out onto the waters about three kms from the shoreline. Not long after we set sail, the boat's engine seized and we were on the water without any power. Mercifully our Army guardian angel was



Army personnel shift a boat which was swept to a residential area of Nagapattinam district, Tamil Nadu (photo PTI)



Damages at Nagapattinam Port on January 1, 2005 after the Tsunami (photo pib.nic.in).



Scenes at Nagapattinam after the Tsunami December 2004 - Two women bemoan their fate (left) and a damaged structure after collision with a boat flung ashore by the waves (right)

with us and another boat appeared to ferry us back. But just as it came alongside and we had begun to speculate how to go from one rocking boat to another, miraculously the engine suddenly chugged into life once more. On the beach, as we stumbled out shaken and ruffled, was a very anxious Dr. Radhakrishnan, the District Collector watching what had happened. He was far from pleased. I mustered up a brave face and reassured him that we were **in the Army's safe hands!**

As I thanked General Manavalan and prepared to move on to a different spot for another story, he asked if he could help us in any way... "Yes, Sir" I boldly replied. "We are very hungry and have not had a proper meal in many days." His instantaneous response was to invite us to his Camp for dinner that very night. So that evening we drove to the Camp and to my great joy and surprise, a wonderful table of food awaited us. Pure joy!! Nagapattinam was like a barren desert in those terrible days after the tsunami...there was hardly any food to be had. We had subsisted on bananas, biscuits and *idlis* for many days. The shops and stalls were bare as a bone. For the first time in my life I knew what hunger meant and what a relief it was to see the three young NDTV colleagues I was responsible for, eat with relish and delight. And now to the

crowning glory of that wonderful evening: as we said our grateful thanks, bade our hosts goodnight and left the Camp, Major General Manavalan presented me with a cardboard box. Inside it were foil packets of dehydrated food to take us through the rest of our time in Nagapattinam. He told me it is what the troops eat when they go into the higher mountains...His kindness

brought tears to our eyes. We lived on those rations for days on end....blessing our benefactor each time we opened and shared a packet of food. **We will never forget the kindness of the Indian Army...**a hungry, starving NDTV team, who like those men in uniform, were also there doing our jobs, telling the world the true story of what was happening.



Jennifer Arul is Editorial Advisor at NDTV Hindu, one of Chennai's best-known faces on television. Jennifer Arul was a stewardess aboard British Airways Flight BA 712 when it burst into flames on April 8, 1967 and handled the crisis exceptionally well. With 30 years of experience as a broadcast journalist and executive in Asia, many of them as Managing Editor and COO in NDTV Hindu, Jennifer is known for her fierce reporting on various sensitive issues and relentlessly championing causes. She has travelled all over Tamil Nadu highlighting the important news events and human-interest reports. Beginning as a freelance interviewer in Doordarshan and All India Radio, she has been with NDTV since it started 20 years ago. She transferred to South East Asia for almost three years to set up TV stations for NDTV in Indonesia and Malaysia. After returning to India, she set up the NDTV Hindu channel. Jennifer Arul now appears every weekend on 4 TV Channels...Goodnews TV, Nambikkai TV, Shubhsandesh TV and Subbavaartha TV.



Jennifer Arul

OH! TO LIVE AGAIN

SURVIVING A FIGHTER JET CRASH

Normally a pilot ejects in case of a serious malfunction while flying a fighter jet, but at times ejection can't take place. Surviving after such a crash is indeed a miracle, as this real life story shows.

“MAYDAY! MAYDAY! MAYDAY! “Racer 1 calling Fishbed Control. My No. 2 has crashed; I have not seen any parachute deploying. My present position is 6 km west of Sri Hargobindpur and maintaining orbit.”

It started off as a normal day at this flying base located in North Punjab. Housing two MiG 21 Bis Squadrons, viz., “Cobras” and “Warriors”, and a helicopter squadron, it was an active frontline operational base of the Indian Air Force (IAF). Aircrew of all the three flying units attended the mandatory morning “Met Briefing”, which gave the meteorological picture for the day and the status of various services which support flying activities.

The morning had been hazy, feeling more like a winter morning. That meant a certain amount of delay in the commencement of flying operations, especially for junior and Under Training aircrew. The pilots went about briefing for their planned sorties, hoping that it would not be long before the morning haze gave way to the sun and normal flying operations could be undertaken. Briefings done, they awaited weather clearance to commence flying.



The author during the Squadron Jubilee Celebrations



A file photo of a crashed Indian Air Force MiG-21 trainer jet in 2019 near the Gwalior airbase (photo PTT) (representative image)



(Left) C2113 Mig-21 Bis of No 15 Squadron 'Flying Lances' (Right) Mig 21 Bis

As on all working days, the Daily Servicing gang of Cobra Squadron had reported for duty when it was still dark and like a well-tuned machine, got down to carrying out the First Flight Servicing on aircraft scheduled for flying that day. Well before the planned take off time, all aircraft were serviced and ready.

"Ranbir", called Kid. *"I don't think Saby will be able to go for the next one hour. Let us brief and go for a low-level mission"*. Saby was a young trainee in the squadron, not yet qualified to fly in the prevailing weather. Keeping aircraft on the ground, especially in the first "detail", when normally the effort is to launch the maximum number of sorties, was almost sacrilege. Hence a quick change in the flying programme - **Kid**, a senior Squadron Leader and Flight Commander of Cobras, and **Ranbir Singh**, a Flight Lieutenant and a Fully Operational pilot – would proceed for a practice low level mission. A low level mission entailed flying at a height of 150 metres AOL (Above Obstruction Level), at speed varying from 750 to 900 km per hour. The exercise comprised tactical turns and hard turns of 5G and more, to practice maintaining the

integrity of the formation while looking out for simulated enemy aircraft and taking tactical actions against such an aircraft.

Low level flying provides the optimal atmospheric conditions for extracting the best manoeuvring performance from the aircraft. However, for the same reason, it also presents the possibility of overstressing the aircraft or the aircrew. The possibility of collision with birds is always present at low levels, and hence the constant scanning of the airspace around to avoid birds.

Having finished the mission briefing, **Racer Formation**, with **Kid as the Racer 1**, and **Ranbir as Racer 2** walked to their aircraft and shortly thereafter took off. Air Traffic Control (ATC) handed over the formation to the Radar Control for exercise surveillance. Racer formation changed over the R/T (Radio Telephony) to Radar frequency, descended to low level and commenced the exercise.

The **MAYDAY** call from **Racer 1** was heard in the ATC a little while later.

The call was made in a contained voice, though a little shocked. The ATC fell silent immediately, to register the details of the situation necessitating the **MAYDAY** call and to launch the well-rehearsed Crash Fire Fighting and Rescue (CFFR) actions. All concerned agencies were informed immediately, including Cobra Squadron, which swung from normal flying related activities towards the rescue.

At low levels, the safety cushion available to get out of a hazardous situation is very little and it could easily spiral out of control into a catastrophe. The fact that Kid had seen the aircraft crash but had not sighted a parachute, was highly disturbing. This suggested only one possibility - the pilot was with the aircraft when it crashed.

"Hey Mally, Ranbir has crashed about 60 km away". The Commanding Officer (CO) of Cobra squadron was through to his counterpart in the helicopter squadron, urgency and concern in his voice. *"Could you get an aircraft to the site quickly?"* Immediately grasping the grimness of the situation and without



MiG 21 aircraft at an air base (photo Getty Images)

question, Mally looked at Hooch and Rajbir, who were at breakfast. In less than a minute, ATC was clearing the helicopter formation, Call sign Gladiator, for take-off. The two helicopters, with the CO and Flight Commander of the Cobras, a Medical Officer and his First Aid team on board, made it to the crash site at their top speed under close radar guidance. It was a short but tense flight for everybody on board. The crash site was only 500 metres from the nearest village and about two km away from another one. Approaching the crash site, the pilots selected a field nearby and landed.

Everybody rushed out towards the crashed aircraft, trying to gather some clue about the fate of the pilot. The aircraft was fully ablaze and there was no question of the fire being put off, even if the fire tenders from the nearest fire station 70 km away managed to reach the crash site at the earliest. There was no question of a rescue from the burning aircraft. It appeared to be a hopeless situation.

By the time the helicopters landed near the crash site, a crowd from the

neighbouring villages had gathered around the burning aircraft, talking about the crash. From within the crowd, which was conversing in the local Punjabi dialect, unfamiliar to most of the rescue party, Squadron Leader Randhawa (Randy), the Flight Commander and a Sikh officer, overheard one of the locals stating, *“Thank God at least one of the pilots is safe”*. With disbelieving urgency, Randy pulled out that man and asked him to repeat the statement. On being told that one pilot had been taken in an injured and unconscious state to a clinic in Sri Hargobindpur, the air warriors hugged each other in relief. They took the village Sarpanch along for guidance and rushed back to the choppers. In about five minutes or so, the two helicopters touched down just outside Sri Hargobindpur and

with the guidance of the Sarpanch, rushed toward the clinic.

In Ranbir's Words

I have never met the people surrounding me. A few of them are trying to untie my shoulder straps and my anti-G suit. The language they speak is Punjabi, so I have no difficulty in understanding them, but due to some pain in the left part of my body and something else, which I cannot understand, probably shock, I am unable to speak clearly. How did I reach here? Can't remember. I must be dreaming, and I will soon wake up, but time is passing and daylight not approaching. No, no, I am not dreaming. It is reality. I gather my willpower and start speaking to the people around. I have still not realised how I am here. I am unable to notice anything except a group of villagers, most of them elderly trying to help me. I am carried to a pucca place from the wet field, and I am helped with some water. How come my face is full of mud? Why can't I walk on my own? I have pain on the left side. *“No, not from the left side please”*, I plead when they lift me again. Some more time elapses and the curtain of shock unfolds. I recollect I had taken off for a low-level mission with my Flight Commander, **“Kid”** this morning, but that does not connect to my being in this unfamiliar place. Have I crashed?

I am put in a horse cart where an old lady gives me an injection. I close my eyes. It feels a little comfortable. During the ride, I draw back into myself and somewhere enroute register being shifted to a motor vehicle. Next, when I regain my senses, I find myself being helped into a clinic with an assurance that my people at the Air Base have been informed. **That was the morning of 3rd September 1987, the beginning of my second successive human life.**



A MiG 21 fighter jet crash site (representative image credit the-radar.in)

Once at the clinic, I was immediately taken into the examination room. The local doctor did his preliminary examination and administered the necessary first aid. By now, I was in a position to know as to what was happening around me. I did not have to stay long with the doctor because soon after reaching there, the rescue team arrived. It gladdened my heart to see them, and I immediately felt a sense of being secure. **“Miraculous!”** was a common word on everyone’s lips.

Lying in the stretcher and being carried to the hospital. I still did not realise the turn my destiny had taken. I still did not know, as many others at that time, that it was not one, but a series of unusual happenings that resulted in my second human life.

Well! When the track of my aircraft while it was descending towards the ground was later traced out, revealed many unbelievable facts.

In one of the hard turns, determined to stick to the leader, I resorted to a little extra G, which resulted in a *“grey out”*. Simultaneously, the aircraft got into a gradual descent and started losing speed

due to high angle of attack. Before I could retrieve the situation, the aircraft reached very close to the ground. The symptoms of approach of dangerous condition of flight went unnoticed by me due to my being under high G. In a desperate attempt to get off the ground, I engaged the afterburner, but alas, too late. As the turn was finishing, the aircraft had lost height and was just 15 metres above the ground. As it continued in its descent, the under-surface of the aircraft scraped the roof of a hut. It managed to fly through a gap between a tree and an electricity pole which were just about 15 feet apart. The aircraft impacted the ground in a near *“wings level”* attitude and low rate of descent. I was unconscious by now. The force of the impact made the aircraft get airborne again, but what was more important was that because of the impact, my seat sheared off from its mountings.

So at this time, I was there with a seat free, but the canopy still in the closed position. The canopy must have been hit a couple of times due to the free movement of my seat. The canopy first

shattered and coming close to the ground, flew off. The aircraft hit the ground again, scraped along the ground for about 300 metres and came to a halt with a slight bank to the left. By now, the aircraft was ablaze. Once again, what was more important was that with the second impact, the seat was thrown outward, and in the process, a small lever meant to separate the seat and the pilot snagged in the railing, activating seat separation. This resulted in my separating from the seat and falling out free only five metres away from the aircraft and landing on my left side with a cushion of my parachute on my back. The field I landed on was wet, and there I lay, unaware of what was going on, when I was spotted by a retired Havildar from the Army, who came running to help and removed me from the crash site.

Let’s go back a little:-

- Had the aircraft, instead of being above the roof of the hut, been just a metre below, it would have hit the wall and broken down right there,



The author in the cockpit during Jubilee celebrations of Cobra Squadron.

killing me and along with me, probably somebody inside the hut too.

- Had the aircraft not gone through the gap between the tree and the pole cleanly, and instead hit either of them, it would have flicked right there, bringing the rest of the happenings to a halt. It needs to be mentioned that the gap was only about 15 feet, whereas the wing span of a MiG 21 is 23 ½ feet, and could go through the gap only because the aircraft had a slight bank on.
- Had the aircraft not hit the ground just the way it did the first time, would the seat mountings have given way?
- Had the canopy not flown off, could I, in the state that I was, have been able to get out of the burning aircraft?
- Above all this, even with no canopy, had the aircraft not hit the ground twice, could all that happened ever have happened? That remains a million dollar question.

The fact that I flew into terrain in my MiG 21 and, despite all the narrow misses just described, survived to tell

the tale, can have but one explanation - **“JAAKO RAKHEY SAAIYAN, MAAR SAKEY NA KOYE”** (no harm can come to one whom God protects)

And today, after all my treatment, I am back into the same cockpit. All my doubts about not being able to return to fighter flying are over.

In addition to God’s liberal blessings, there has been one constant source of strength during various stages of my recovery - my wife Avneet. She rose to the occasion, and has been very contained all through. I feel proud that she provided me with a lot of encouragement and positive hope. At no time did she make me feel that I could not do it again. Each and every member of my Squadron played a vital role in pulling both of us along, through the

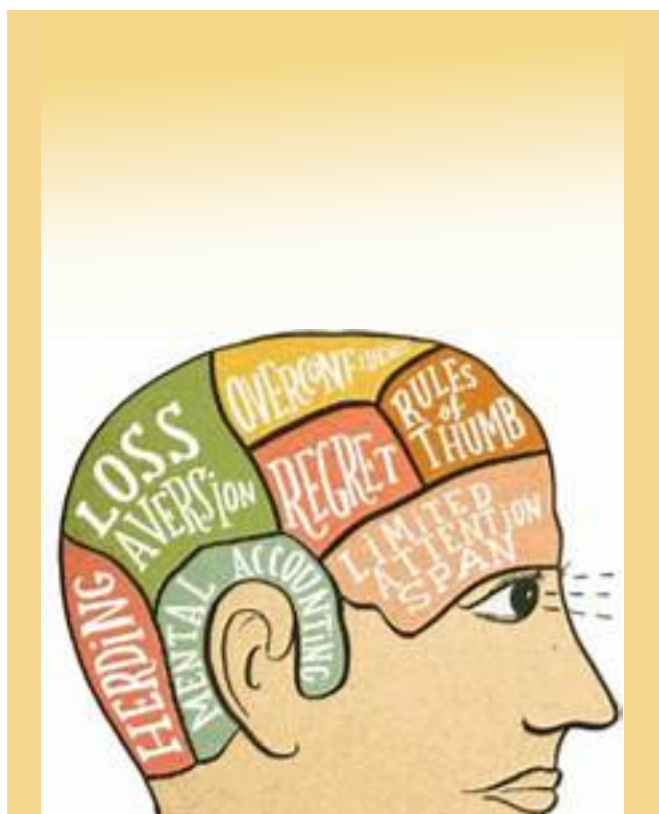
recovery phase. We never felt alone and left out, not even a single day. I am proud of the organisation to which I belong.



Wing Commander Ranbir Singh (Retd), an alumnus from the National Defence Academy, Pune, was commissioned into the Fighter Stream of the IAF in December 1981. He has flown about a thousand hours on the MiG 21 and about 300 hours on the MiG 29 aircraft. A graduate of the Defence Services Staff College, Wellington, Ranbir is a Qualified Flying Instructor, who has been the Chief Flying Instructor too, and has served as an Inspector with the prestigious Directorate of Air Staff Inspection. Due to his subsequent medical category, which ruled out flying ejection seat aircraft, he took premature retirement in 2005 and joined Civil Aviation. Having flown about 13500 hours on the Boeing 737, he is an Instructor Trainer and DGCA appointed Designated Examiner. He has recently retired from Civil Aviation.



**Wing Commander
Ranbir Singh (Retd)**



BEHAVIOURAL FINANCE

WHY YOU ARE YOUR BIGGEST "VILLAIN" WHEN INVESTING

"Knowing yourself is the beginning of all wisdom" - this is absolutely true when it comes to investments. Why? The answer lies in this article, and by the end, you might know yourself even better.

Back in the yesteryears, traditional finance was prevalent. Traditional finance concepts believed that markets and investors were both rational, had self-control, and made decisions without any biases. But is this true in real life? The answer is a big **"No."** Then came the revolutionary concept of **"Behavioural Finance,"** which combined psychology and finance. In Behavioural Finance, investors and markets are considered **"Normal"** and **not rational**. Investors have limits to their self-control, and their decisions are influenced by their very **own biases**.

The following are some limitations of traditional finance and the advantages of Behavioural Finance:

- Under traditional finance, there was no psychological component involved, but under behavioural finance, psychology plays a major role and has significant impact.
- Since psychological concepts like irrationality and biases are involved, and their impact on decision-making is accounted for in Behavioural Finance, it considers realistic decision-making skills of an investor compared to traditional finance.
- Why an investor behaves in a certain way can only be understood through behavioural finance, as traditional finance always assumes that investors are rational and only make rational decisions.
- As an investor, financial planner, or advisor, it is important to understand the factors that influence client behaviour and its impact on their choices.



Here are the major Behavioural Finance Mistakes you should avoid while investing to become a better investor:

1. Loss Aversion

"An investor tends to feel the pain of losses more intensely than the joy of gains". Loss aversion is a tendency where an investor is so fearful of losses that they focus on avoiding loss rather than focusing on making gains. Investors who experience losses become more prone to loss aversion. This makes them reluctant to acknowledge losses and can lead to reluctance to sell underperforming assets, even when it may be in their best interest to do so.

Real-Life Example: Sharath bought shares of Company XYZ at Rs 100 per share. The stock has now dropped to Rs 70, and all indicators suggest it will continue declining due to poor company fundamentals. However, Sharath refuses to sell

because he doesn't want to "realize" the Rs 30 loss. Meanwhile, he passes up opportunities to invest in better-performing stocks. Eventually, XYZ drops to Rs 40, and his loss doubles. If he had sold at Rs 70 and invested in a growing company, he might have recovered his losses and made gains.

2. FOMO (Fear of Missing Out)

"Fear Of Missing Out" - My neighbour bought a car, my cousins made these investments, I didn't do anything. Am I missing out? If this question has appeared in your mind, then you're experiencing FOMO bias. When investors feel this bias, they worry about missed opportunities and often make impulsive decisions.

Real-Life Example: During the 2021 cryptocurrency boom, John saw his friends making thousands from Bitcoin and Dogecoin. Feeling left out, he borrowed money to invest Rs 100000 in crypto at near-peak prices. Within months, the crypto market crashed, and his investment was worth only Rs 30000. His FOMO led him to invest borrowed money at the worst possible time, causing significant financial stress.

Solution: Practice JOMO - "Joy of Missing Out." Choose contentment and satisfaction instead of fear. Remember, there will always be opportunities you miss, and that's perfectly fine.

3. The Herd Mentality

Herding is a behaviour where an individual follows a crowd and makes decisions based on the crowd's choices, even when it differs from their individual preference. This can be due to societal pressure, fear of losing out, or excitement about jumping on a trend.

Real-Life Example: In 2000, during the dot-com bubble, everyone was talking about internet stocks. Manish, who knew nothing about technology, invested his retirement savings in tech stocks because *"everyone was doing it"* and making money. When the bubble burst in 2001, he lost 80% of his retirement funds. Meanwhile, his neighbour who stuck to diversified index funds preserved his wealth and bought quality stocks at discounted prices after the crash.

4. Overconfidence

"We tend to overestimate our ability to predict the future. People tend to put a higher probability on desired events than undesired events." An investor may overestimate his ability and risk more than his risk-taking capability. This affects when decisions made due to overconfidence bias go wrong.

Real-Life Example: After making successful trades on three tech stocks, Mohan became convinced he was a stock-picking genius. He quit his job to become a day trader, using all his savings and even taking loans. He believed he could consistently beat the market. Within six months, he had lost 90% of his capital because he took excessive risks, ignored diversification, and didn't account for the role of luck in his initial success.

5. Confirmation Bias

Confirmation bias is seeking evidence and information that matches your existing beliefs while ignoring information that contradicts them, even when that contradictory information is true and fair.

Real-Life Example: Rohan believed that gold was the only safe investment. He read only websites and articles that praised gold investments while dismissing any research showing stock market returns over long periods. Even when presented with 100 years of data showing stocks outperformed gold, he refused to diversify. Over 20 years, his gold-heavy portfolio returned 8% annually while a diversified Mutual Fund portfolio returned 18% annually. His confirmation bias cost him hundreds of thousands in potential returns.

6. Mental Accounting

Mental accounting is categorizing money based on its source and treating different money sources differently, even though all money has the same value. Investors also tend not to sell investments if they have emotional attachment to the asset.



Real-Life Example: Latha inherited Rs 500000 worth of her grandmother's bank stocks. Even though the bank was performing poorly and financial advisors recommended selling, she held onto it for sentimental reasons, saying *"It's grandma's money, I can't sell it."* Meanwhile, she was conservative with her salary money, putting it in low-yield savings accounts. Over 10 years, the bank stock lost 40% of its value while the market gained 150%. Her emotional attachment cost her significantly.

Sunk Cost Fallacy Example: Tandon invested Rs 20 lakhs in a failing restaurant business. Even as it continued losing money monthly, he kept investing more, thinking *"I've already put in so much, I can't quit now."* He ended up losing Rs 50 lakhs in total instead of cutting his losses at Rs 20 lakhs and investing in profitable opportunities.

7. Information Bias

Under this bias, an investor collects excessive information to make a decision, even when the additional information is not relevant or useful. This can lead to analysis paralysis and delayed decision-making.

Real-Life Example: Before buying any stock, Amudha would spend weeks reading every possible report, news article and analyst opinion. She would create complex spread sheets with dozens of metrics. While she was analysing, good opportunities would pass by. She missed investing in ITC at Rs 150 per share because she was still *"researching"* when it jumped to Rs 300. Her need for perfect information caused her to miss multiple profitable investments due to delayed decisions.

8. Familiarity Bias

An investor choosing familiar investment opportunities and investments they're

comfortable with, rather than exploring other opportunities, is called familiarity bias. This might result in over-concentration, less diversification, and missed opportunities.

Real-Life Example: As an Infosys employee, Karthik invested 80% of his portfolio in Infosys stock because he *"understood the company."* He ignored advice to diversify, saying he knew Infosys better than any other investment. When Infosys's stock dropped 30% due to US Market concerns, his entire portfolio suffered massively. Meanwhile, his colleague who diversified across various sectors maintained stable returns even when tech stocks declined.

9. Availability Bias

An investor tends to make decisions based on recent and easily recallable information. This bias can lead to fast and irrational decisions based on trending news without proper research.

Real-Life Example: After watching news about a plane crash, Jothi became terrified of airline stocks and sold all her travel-related investments at a loss. She then invested heavily in *"safer"* pharmaceutical stocks. However, statistically, airline accidents are extremely rare, and the travel industry recovered quickly. Her knee-jerk reaction to dramatic but statistically insignificant news cost her significant returns when travel stocks rebounded strongly.

10. Heuristics

Heuristics are mental shortcuts or rules of thumb for everyday decisions, but when used for complex investment decisions, they become biases. A

common heuristic bias is **"Past performance predicts future results."**

Real-Life Example: Danish always invested in the previous year's best-performing mutual fund, believing that winners keep winning. In 2020, he invested in technology funds that had gained 40% the previous year. In 2021, these same funds lost 20% while value stocks (which had underperformed) gained significantly. His strategy of chasing past performance led to buying high and selling low repeatedly, destroying his long-term returns.

Using Knowledge of Biases to Become a Better Investor

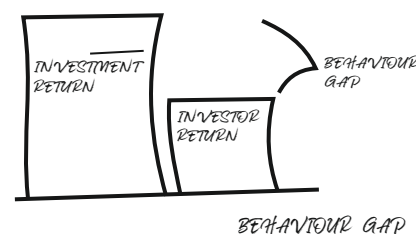
Understanding these behavioural biases is just the first step. The real power comes from implementing systematic strategies to overcome them and harness behavioural finance principles for wealth creation. Here's your comprehensive roadmap:

1. Create a Systematic Investment Framework

The Solution: Develop written investment rules and stick to them religiously.

Wealth-Building Strategy:

- Write down your investment goals, risk tolerance, and time horizon.
- Create specific criteria for buying and selling investments.



- Set up automatic investments to remove emotional decision-making.
- Review and rebalance your portfolio on a schedule (quarterly or semi-annually), not based on market emotions.

Implementation Example: *"I will invest 20% of my income monthly in low-cost index funds, regardless of market conditions. I will rebalance annually to maintain 70% stocks, 30% bonds until age 50, then gradually shift to 60% stocks, 40% bonds."*

2. Implement Rupee-Cost Averaging and Contrarian Investing

The Strategy: Use behavioural biases of others to your advantage.

Wealth-Building Approach:

- When others are fearful (market crashes), gradually increase your investment amounts.
- When others are greedy (market euphoria), reduce new investments and take some profits.
- Use market volatility as an opportunity, not a threat.

Historical Example: Warren Buffett famously said, *"Be fearful when others are greedy, and greedy when others are fearful."* Investors who bought during the 2008 financial crisis, 2020 pandemic crash, or other market downturns saw extraordinary returns as markets recovered.

3. Diversification: Your Ultimate Bias-Buster

The Science: Diversification is the only free lunch in investing because it reduces risk without necessarily reducing returns.

Wealth-Building Implementation:

- Spread investments across asset classes (stocks, bonds, real estate, commodities).
- Diversify geographically (domestic and international markets).
- Diversify across time (Rupee-cost averaging).
- Diversify across investment styles (growth, value, small-cap, large-cap).

Real Impact: A properly diversified portfolio historically reduces volatility by 30-40% while maintaining similar long-term returns to concentrated portfolios.

4. The Power of Compound Interest and Time

The Behavioural Advantage: Most people underestimate the power of compound interest due to exponential growth bias.

Wealth-Building Strategy:

- Start investing as early as possible, even with small amounts.
- Prioritize tax-advantaged investing (like ELSS, NPS or tax loss harvesting).
- Reinvest all dividends and capital gains.
- Never interrupt the compounding process for non-essential expenses.

Stunning Example: Rs 15000 per month invested as an SIP for 15 years at 15% per annum return will create Rs 1 Crore in Corpus.

5. Behavioural Arbitrage: Profiting from Others' Mistakes

The Concept: While you overcome your biases, profit from others who haven't.

Wealth-Building Strategies:

- **Value Investing:** Buy quality companies when others are selling due to temporary problems.
- **Contrarian Investing:** Invest in unfashionable but fundamentally sound sectors.
- **Market Timing:** Not trying to time perfectly, but taking advantage of extreme market conditions.

Example: During the 2020 pandemic, while others were panic-selling due to fear, smart investors bought quality stocks at 30-50% discounts. Companies like Infosys and HDFC Bank not only recovered but reached new highs within months.

6. Create Multiple Income Streams

Behavioural Insight: Most people have familiarity bias toward their job income only.

Wealth-Building Approach:

- Build dividend-paying stock portfolios for passive income.
- Invest in Real Estate Investment Trusts (REITs) instead of physical real estate.
- Create or invest in businesses.
- Develop intellectual property or digital assets.
- Build skills that generate consulting or freelance income.

The Millionaire Formula: Most millionaires have seven different income sources on average.

7. Tax Optimization: Keep More of What You Earn

The Behavioural Edge: Most investors focus on returns but ignore taxes, which can destroy 20-40% of investment gains.

Wealth-Building Strategies:

- Maximize tax saving investments like MFs, PPFs etc.
- Implement tax-loss harvesting in taxable accounts.
- Hold investments for over one year to benefit from lower capital gains tax rates.

8. The Discipline of Systematic Rebalancing

Behavioural Advantage: Forces you to sell high and buy low automatically.

Wealth-Building Implementation:

- Set target asset allocation percentages.
- Rebalance when allocations drift 5-10% from targets.
- Use rebalancing to force yourself to take profits from winning investments and buy underperforming assets that may be poised for recovery.

Historical Impact: Systematic rebalancing has historically added 0.5-1% annual return while reducing portfolio volatility.

9. Continuous Education and Adaptation

The Learning Advantage: Stay ahead of behavioural biases by continuously updating your knowledge.

Wealth-Building Actions:

- Read classic investment books

(Benjamin Graham, Warren Buffett, Jack Bogle).

- Study behavioural finance research.
- Learn from your investment mistakes without letting them paralyze you.
- Stay informed about economic trends and market cycles.
- Consider working with a financial advisor who understands behavioural finance.

10. The Ultimate Wealth-Building Mindset

Core Principles:

- **Think in decades, not days:** Wealth building is a marathon, not a sprint.
- **Embrace volatility:** Market fluctuations are opportunities, not threats.
- **Focus on what you can control:** Your savings rate, investment costs, tax efficiency, and asset allocation.
- **Automate everything possible:** Remove emotions from routine investment decisions.
- **Stay humble:** The market will humble everyone eventually; prepare for it.

The Wealth-Building Formula: Massive Wealth = (High Savings Rate + Smart Investment Strategy + Long Time Horizon + Behavioural Discipline) × Compound Interest

Final Thoughts: Your Behavioural Finance Action Plan

- 1. Week 1:** Complete a personal bias assessment - identify which biases affect you most.
- 2. Week 2:** Write your investment policy statement with specific rules.
- 3. Week 3:** Set up automatic investments and rebalancing schedules.
- 4. Month 2:** Implement tax-advantaged account strategies.
- 5. Month 3:** Create your diversified portfolio allocation.

6. Ongoing: Monthly review of behaviour, quarterly portfolio review, annual strategy assessment.

Remember: *The greatest investors aren't those who never make mistakes, but those who make fewer behavioural errors than others and learn from their mistakes quickly. By understanding and overcoming these behavioural biases, you're not just avoiding pitfalls - you're gaining a significant competitive advantage in building long-term wealth.*

The journey to financial freedom isn't just about picking the right investments; it's about mastering the investor in the mirror. When you can control your behaviour, you can control your financial destiny



Babu Krishnamoorthy

Babu Krishnamoorthy has spent the past 25 years as a financial adviser and entrepreneur, and is the Chief Sherpa at Finsherpa Investments Pvt Ltd. A money coach, he helps people dream big and achieve life goals.

He helps them plan and execute their financial plans in a manner that is predictable. He loves meeting people and spends his spare time reading non-fiction & is an amateur runner (with over 15 half marathons and one full marathon completed).

He has authored many books including "Unlock Secrets to A Wealthy Life". He is available at babu.k@finsherpa.com (www.finsherpa.com)

UNPACKING THE PULSE OF WELLNESS IN 2025

Ten years ago in Chennai in the year 2015, we unfolded the very first **Radiant Wellness Conclave**. I still remember those early years, when people walked in with curiosity, but stayed, because they felt seen, heard and understood. Some of the brightest minds sat on that stage. And the depths of those conversations, the ideas they brought, the questions they raised have stayed with me year after year. I can proudly say that what started as a spark has become a platform for change.

Cut to 2025, the **Radiant Wellness Conclave (RWC)** is not just a milestone; it is a space to begin again, to come home to ourselves, and to illuminate the path for others.

As always, this year's **RWC** lit up the stage with the relevant theme, **'The Era of Disruption.'** Against a backdrop of global change, this transformative event brought together trailblazing thinkers, wellness icons, and inspiring voices for a day of powerful dialogue. From mental clarity to purpose-driven living, conversations spanned the nine dimensions of wellness. The atmosphere crackled with energy, ideas, and empathy. Here are my own standout moments and key takeaways from the Conclave.

Understanding the Impact of Disruption

Colonel David Devasahayam, Founder & CMD of The Radiant Group of Companies, has been the patron of the **RWC** since its inception. In his welcome address, he pointed out that disruption is inevitable, but there are four pillars of wellness that can be especially vital in this disrupted world. The first is mental clarity, a superpower in the age of information overload. The second is physical sustainability. Listen to your body, move regularly, sleep enough, and eat in a way that fuels. The third pillar is digital boundaries, whether it is screen-free mornings, focused work time, or a social media *sabbath*. Lastly, community connection leads to prioritising meaningful relationships. Wellness thrives in community, whether that's friends, family, or



Colonel David Devasahayam addresses the Radiant Wellness Conclave, at Chennai 09 August 2025

even co-workers. In times of upheaval, human connection becomes a protective force.

This riveting speech was followed by yet another, with our dapper and eloquent keynote speaker **Dr Shashi Tharoor**. A politician, author and former international diplomat, Dr Tharoor spoke about disruption across the nine dimensions of wellness, along with ways to mitigate it. *"We can reclaim our wellness from the jaws of disruption,"* he said. *"We don't have to renounce technology. It's come to stay. There are good things in it. But we can domesticate it. We can make it ours. The first step is awareness. Remember that we can pilot our technologies rather than be chained to them."*

Fifty Fabulous Years in Films

The recipient of our Lifetime Achievement Award, **Shabana Azmi** celebrates 50 years in cinema this year! I had a memorable Fireside Chat with her as she reflected on her journey and shared insights on occupational wellness. She spoke about the portrayal of complex human relationships amidst social turmoil in the film *'Arth'*, for which she won a National Award. She shared how the film unexpectedly connected her to women seeking help with their marital problems, which deepened her interest in women's activism. Shabanaji also admitted to being highly critical of her own past performances, often feeling discomfort watching older films, a trait she believes is crucial for artistic growth.

Rejecting complacency, she underscored the necessity of continual self-assessment for any artist. She was also candid about her modest childhood. *"We were living in a commune with eight rooms sharing just one bathroom and one toilet,"* she said. Despite financial limitations, her upbringing was rich in cultural and political awareness, especially influenced by her father's communist ideals. She recalls a poignant memory of her father giving her a black doll and telling her, *"black is beautiful too,"* challenging prevailing beauty norms. She also reminisced about attending film festivals in the 1970s with Shyam Benegal and Smita Patil, when budgets were minimal and marketing was rudimentary. Their strategy of simply parading in traditional saris and *bindis* drew attention and packed theatres, a stark contrast to today's glitzy red carpet culture dominated by fashion and commercialism.

When the Environment Takes a Beating

I was absolutely blown away by **Dr Sowmiya Anbumani's** insights during her discussion with journalist Barkha Dutt. A politician and environmentalist, Sowmiya is a dear friend, but this side to her was a revelation for me! She offered illuminating statistics and the depth of her knowledge, coupled with her sheer passion for the environment, made for an absolutely magical session. One point especially hit home, reminding me of the movie *Erin Brockovich*. Toxic sewage water is dumped into open fields and subsequently released into the air, causing large-scale pollution. No farming can take place. There's a high rate of cancer and deformities. *"People in these areas are sick with these diseases and don't know why,"* Sowmiya said, *"The people of Vellore and Ranipur knew that this was happening because of the leather*

tanning factories. Only through awareness rallies conducted by NGOs like us did they come to know about this problem, but it still hasn't been solved. Though the Supreme Court has directed many initiatives to stop it, there are still incidents. This is an ongoing fight, and we are never going to stop."

When Technology Meets Health

When one is speaking of disruption, technology is often a bad word. Our Technological Wellness speaker **Josh Foulger** busted this myth. The President (Electronics) of Zetwork Manufacturing, Josh spoke about how technology enables wellness across five areas - prevention, diagnosis, surgery, recovery and rehabilitation. As a doctor myself, I can't tell you how thrilled I am that these aspects are being highlighted. He spoke about the tracker on his phone, which records everything from your steps to screen time. *"But you also have to listen to your body, more than just the statistics on the phone,"* he added. *"In terms of diagnostics, our hospitals have come a long way and done an amazing job in having the right*

diagnostic equipment, some of which are even low-cost and portable. It is mind-blowing to see robot-assisted surgery and imagery helping doctors to do things better. There are many recovery tools, and we should embrace them very carefully. And finally, whether you get injured or have age-related problems, tech-assisted rehabilitation is very powerful."

Students and the Smartphone Addiction

With two young grandchildren at home, this was a session that I was looking forward to for personal reasons as well! Barkha Dutt moderated a panel of eminent educators, including **Dr Padmini Sambhasivam** (Principal – Shiv Nadar School, Chennai), **Colonel Gopal Karunakaran** (CEO – Shiv Nadar Schools) and **Dr Lillian Jasper** (Principal – Women's Christian College, Chennai). Dr Padmini addressed why smartphones shouldn't be given to young children in school. *"If they're going to be allowed devices, every 10 minutes somebody is going to get out of what they are supposed to do. Research says it takes 25*



Dr. Renuka David in conversation with Mr Boman Irani.



Dr. Shriram Nene discussing longevity and health span vis-a-vis life span.

Tamils as a community, their evolution, growth, and what they bring to the table both in India and globally. In her discussion, Dr Nirmala said, “Apart from being a very productive economic hub, I think corporate groups in TamilNadu are now aware of the whole importance of social wellness. The other day, I was talking to somebody who was part of a Board that I belong to. The directors were very concerned about the mental and physical well-being of their staff. It was not about just the remuneration that they received, but about ensuring that there's happiness and a sense of ownership around the work that they do. I'm sure it happens in other states and sectors, but particularly the larger corporates here have a sense of welfare. I think that's a very interesting thing that comes along with the economic and financial

minutes to get back your focus into deep reading. So, attention fragmentation does not allow a child or a student to give his or her very best. Initially, it probably looks like we're taking away a perk, but we should first teach them how to intentionally use the digital world.”

Colonel Gopal took it one step further and spoke about the four happy hormones - serotonin, oxytocin, dopamine and endorphins, essential to all human beings. “It means sunlight. It means hugs. It means smiles. It means exercise. It means dance,” he said. “Schools are tremendous spaces because it's automatically happening there all the time, and good schools will push it a little more. Great schools will insist that reading books is central.”

Dr Lillian shared her insights on college-level students at WCC, stating that while phones are banned on campus, faculty is taught to harness them creatively. “We teach students to look at their phones not just as something meant for fun or entertainment, but for more serious pursuits. On campus, we constantly keep building on their meta-cognitive skills because you can get information through prompts. How do you look at it to see whether it speaks to you in some way or how do you make it yours by being creative?”

The Tamils: A Community

In conversation with the Patron **Colonel David Devasahayam** was **Dr Nirmala Lakshman**, author of *The Tamils*, Chairperson at The Hindu, and Founder of Lit for Life. Her book delves into the

growth. Whether it's at the small NGO level or multi-billion dollar corporate, there's an awareness of the need for people to be well mentally and physically.”

Hard Work Always Pays Off

This was one of my favourite sessions from the **RWC 2025**, being in conversation with the very talented **Boman Irani**! Apart from being honest, open and an easy-going guest, he indulged me and sang one of my favourite Sinatra numbers, ‘My Way’. And he was spectacular, giving many established singers a run for their money! He also spoke about how he landed *Munnabhai M.B.B.S*. He opened the conversation with light humour and a glimpse into his youth marked by challenges. Dyslexic and shy as a child, he struggled academically, often scoring low marks, which made him feel different and isolated. His unconventional mother, recognising his anxiety and discomfort with traditional schooling, encouraged him to develop his strengths by watching movies after school every day. This unorthodox approach helped him develop a deep understanding and love for cinema, which later influenced his career. Boman also spoke about a variety of jobs. In his teens, he worked at the Taj Hotel, starting at the bottom-washing plates and folding linens in the hotel's basement before working his way up to the rooftop Rendezvous restaurant. This experience taught him the value of humility, perseverance, and the necessity of earning success through hard work. After several years as a shopkeeper and starting a family, he became a photographer, dabbled in theatre, and eventually, when he was in his forties, became a recognised name in Bollywood.

Financial Wellness is for Perpetuity

In our growing economy, we're in a society where wealth creation is



Dr. Shashi Tharoor presents the Radiant Lifetime Achievement Award to Ms Shabana Azmi, accompanied by Colonel David Devasabayam (extreme left) and Dr Renuka David (extreme right).

happening at a pace like never before. Our financial wellness speaker **Mr Shyam Sekhar** says that this is going to happen for a long time to come. Back in the 1990s, when he started off as an investor, it was before liberalisation. *"In those days, one crore rupees was a princely sum and enough to retire. A plot of land in my locality in Chennai was just about one or two lakhs. Today, can somebody retire with just one crore rupees? The answer is no. Most of us don't even realise that the wealth we have may not last beyond one or two generations, and sometimes not even in our own times."* He added, *"Financial wellness is something which even transcends physical wellness. Physical wellness is only about ourselves. It's only about our body, about what happens to us in the present in our lifetime. But financial wellness is not like that. It is something that outlives us and those who follow. It is actually meant for perpetuity."*

Live Long and Prosper

Now, as I am a doctor primarily, I've saved this session for the end, as it is extremely close to my heart. **Dr Shriram Nene**, a close friend, Cardiovascular & Thoracic Surgeon, health tech innovator, founder and investor spoke on longevity. He emphasised that physiological age, assessed through markers like telomere length and mitochondrial function, is a

better indicator of health and longevity potential than chronological age. Factors like Blue Zone research, natural movement, purpose-driven life (ikigai), social connections, stress reduction, mindful eating, and plant-focused diets emerged as reproducible lifestyle drivers of longevity have strong observational evidence and translate well across cultures. He candidly shared his own metabolic markers worsening despite professional knowledge, illustrating how lifestyle and genetics interplay. His

disciplined combination included caloric restriction, exercise, medication and veganism. He added, *"When we talk about lifespan, we talk about the actual age that someone will survive. And now there's a new term called health span. This is important because it's the portion of your life spent in great health. Now imagine if you lived to 93, but you can't walk, you're bed-bound, and your memories aren't intact. How is that helpful to you? So, it's not just about life expectancy or lifespans. It's about healthy years. And in my book, I think health span should be lifespan."*



Dr Renuka David, MBBS, PGD (MCH), USA-PhD (HC) is the Managing Director of Radiant Medical Services and an alumnus of the Coimbatore Medical College. She has been a frontier doctor, working extensively with women and young adults in urban, rural and tribal India. She has also been a contract doctor with the Indian Army for three years. Dr Renuka dons many avatars as an entrepreneur, doctor, professional speaker, television show host, TEDx speaker and wellness expert. She is the Founder-Curator of the immensely successful Radiant Wellness Conclave.

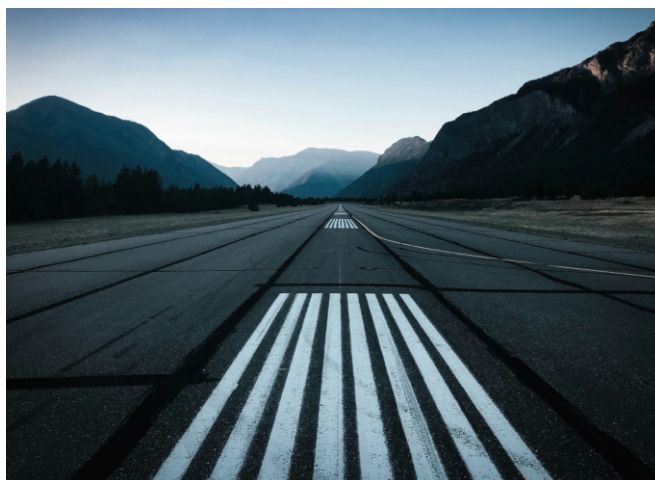


Dr.Renuka David

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TARMAC TOIL AFTER WEEKEND BRIDGE

Entertainment, games and hobbies cannot compromise professional tasks and responsibilities as shown in this fictionalised account of an actual incident of the early '60s.



Pilot Officer (now an extinct species) Amit Kataria had joined the unit recently and was getting familiar with the squadron and the flying environment. The easy bonhomie of an operational squadron after the formal and stiff attitude at training institutions was something that he was really relishing. Imagine, not having to 'Sir' anyone upto the rank of Flight Lieutenant. Everyone was addressed only by nickname, and he was having a busy time associating Goofy, Buster, Bundle, Fuzz, Suzy, Bingo, Bozo, Muff, et al, with the faces that went with them. He himself was promptly nicknamed Kats, which would practically be his name for the rest of his Air Force life. On weekends, the senior bachelors made sure that the youngsters were looked after – a trip to town for a dosa-n-icecream and movie being the standard fare. The social life was great, the keen contest with the sister squadron over gunnery scores was exhilarating, and what was more, the SODA (Senior Officers' Daughters' Association) was well subscribed to!!! Kats couldn't have asked for more.

It had been a week and a month of intensive flying and everyone looked forward to the weekend. The squadron met at the bar for the customary winding down. After a couple or three down the hatch, Flying Officer ND Sharma (Fuzz) sauntered up to Kats and invited him to a game of bridge. Fuzz, though quite junior, was already **Fully Ops**, a two-aircraft leader, and was the quintessential Air Force pilot. Kats readily agreed and the foursome was soon engrossed in the challenge of the game. The game was absorbing and the weekend flew past. The fact that Kats was programmed to fly a Low Level Navigation sortie (with Fuzz as Leader) on Monday and the fact that he was to make the maps and other preparations for the sortie did cross his mind. But hadn't Fuzz himself invited him to play bridge? And wasn't he playing bridge with him throughout the weekend? With these comforting excuses, he continued playing, and indeed enjoyed the game. The maps did not get done.

Come Monday, flying activities commenced early. After the Met briefing at 0600 hours, and the Emergency cum Gen session by the Flight Commander in the briefing room, Kats

reported to Fuzz for the sortie briefing. Expecting some reference to the long session of bridge they had shared over the weekend, Kats was befuddled by the impassive visage of the leader. Instead of showing familiarity, he was barking questions at Kats, 'Where are the maps for the sortie? Where are the Nav cards? What is the route? What is the route safety height?! Maps? Nav Cards? But, but...' spluttered Kats. The next thing, Kats was measuring the length of the tarmac with a six-inch scale. It was a long tarmac and it was a hot summer day, and it took Kats the better part of the morning to measure the tarmac. By the time he finished, he was cursing everyone freely including himself for not preparing for the sortie. For the rest of the week, he avoided Fuzz like plague.

But the more he thought about it, the more he realized that the option of exercising a choice rested with him and no one else. It is important to develop hobbies and interests that add depth and substance to your personality. However, the responsibility of balancing work with play is that of the individual. It was a valuable lesson, learnt the hard way, but never forgotten.



Air Marshal Harpal Singh, PVSM, AVSM, VM (Retd) was commissioned as a fighter pilot in June 1980. He has about 2500 hours of flying experience mainly on MiG 21, MiG 23, MiG 27 and MiG 29 aircraft. He has commanded a MiG 29 Squadron and has also been a Chief Operations Officer at an Air Force Station. He has commanded two Air Force Stations in the West and East respectively. Besides his DSSC Course, he has also attended the Senior Officers Course at National Institute of Defence Studies, Japan. He has been the Deputy Commandant College of Air Warfare (CAW) and has held important appointments in the strategic arena. He was Senior Air Staff Officer at HQ South Western Air Command. He was Director General (Inspection and Safety) of the IAF till his superannuation in May 2019. He is presently based in Secunderabad.



**Air Marshal
Harpal Singh**



Top. Kutupalong Refugee Camp in Bangladesh for Rohingya
(photo en.wikipedia.org)

Bottom. A banned group calling for an Islamic caliphate in Dhaka
(Credit Munir Uz Zaman Agence France Presse / Getty Images)

RISING FUNDAMENTALISM IN BANGLADESH

Bangladesh, a Muslim majority nation created in 1971 and established on the basis of Bengali nationalism, with secular credentials, has rapidly transformed into an Islamist country marked by a rise in fundamentalism and growing intolerance for other religions. Rising fundamentalism impacts the internal stability and the democratic institutes of Bangladesh with consequences for India, also due to its growing collaboration with Pakistan. In addition, increasing Chinese footprints in the region further aggravates the security challenges for India. Understanding the nature, causes and consequences of this rising fundamentalism in Bangladesh, and the potential threats posed by Pakistan in leveraging the situation to foment trouble is important to ensure India's security and strategic interests.

Bangladesh shares a porous boundary of 4096 km with India, with a long history of colonial rule, partition woes, battle of independence from Pakistan, migration, wide ranging bilateral disputes, and insurgency movements. Peaceful coexistence of India and Bangladesh, home to 20% (1.612 billion) of the world population is necessary for fighting poverty, deprivation and sub-par human development indices.

The geopolitical landscape in South Asia has undergone a seismic shift post **Operation Sindoor** launched by India to target terrorist infrastructure in Pakistan consequent to the dastardly killing of 26 innocent tourists in Pahalgam on 22 April 2025. Global complexities have increased in the emerging world order post Trump 2.0. An emboldened Pakistan appears to have been energised in its attempt to destabilise India through its time-tested strategy of sponsored proxy war.

According to General Ahmed Sharif Chaudhry, a spokesman for Pakistan's military, Field Marshal Munir intends to deepen military strikes into Indian territory in future conflicts, with a specific warning that attacks will start "from the East", a notable deviation from the traditionally Kashmir-



Students agitate in February 2015 in Dhaka (Image: [dn.com Getty Images](https://www.gettyimages.com)/AFP/M. Uzzaman)

centric confrontation zones¹. The shift to the East is ostensibly due to the reset of Pakistan's relation with an anti-India radicalised Bangladesh subsequent to the fall of the Sheikh Hasina government. Hardline Islamists in Bangladesh have regained their space under the patronage of the interim government of Chief Advisor Muhammad Yunus.

Roots of Fundamentalism and its Resurgence

The history of Bangladesh is rooted in undivided Bengal. While ancient Bengal was a part of powerful empires like the Maurya, Gupta and Pala dynasties, the spread of Islam to Bengal happened with the Turkic invasion in the 13th century under Bakhtiyar Khilji and expanded under the Mughal rule. A communal divide gradually came to fore and resulted in the partition of British India on religious lines in 1947 into India and Pakistan, with present day Bangladesh created as East Pakistan. Bengali nationalism and exploitation of the East by West Pakistan created a schism between the two, giving rise to a violent freedom struggle culminating in Bangladeshi independence following the 1971 India-Pakistan war.

Bangladesh became a secular and pluralistic nation at the time of gaining independence though Islamic influence was discernibly visible. The main Islamic front was the **Jamaat e Islami**, a movement founded in Lahore in August 1941 in undivided India which spread its influence in all Muslim dominated areas including present day Bangladesh. Ideologically the Jamaat never accepted Bengali nationalism as a basis for the existence of Bangladesh and in fact **Jamaat hardliners fought alongside Pakistan forces during the 1971 War of Independence**. Consequently, Jamaat leaders were prosecuted in independent Bangladesh for war crimes. The **Islamic Chhatra Shibir**, the youth wing of the Jamaat, has dominated the

madrassas and some of the colleges and universities in Bangladesh.

Post-independence, successive governments patronised the Islamists to win public support. After the assassination of Sheikh Mujibur Rahman in 1975, the country saw military rule under General Ziaur Rahman, and later under General Hussain Muhammad Ershad. The military rulers cultivated the Islamists to counter the popular support enjoyed by the Awami League of late Sheikh Mujibur Rahman. This resulted in the word “secularism” being dropped from the constitution and then removal of the ban on Islamist parties by Ziaur Rahman, and subsequent declaration of **Islam as the state religion** by General Ershad in 1988. Growth of fundamentalism among the young population was also spurred by the *madrassas* which instilled staunch orthodox Islamic values.

The Fundamentalist Groups

Formation of transnational Islamist terrorist groups like Al Qaeda and perceived persecution of Muslims elsewhere in the world led to the formation of militant fundamental organisations in Bangladesh. Prominent amongst these was the **Harkat-ul-Jihad-al-Islami Bangladesh (HuJI-B)**, the first such organization formed in 1992 with reported support from Osama Bin Laden. Some of the pioneers of HuJI-B had participated in the Afghan war against Russian occupation. Islamist political parties as well as militant fundamentalists continued to mushroom in Bangladesh despite efforts by the Sheikh Hasina government to rein them in. Besides creating law and order problems, these organisations started targeting religious minorities forcing their

¹ <https://www.indiandefensenews.in/2025/08/asim-munirs-strategised-military-gambit.html>

migration to India. As per reports, HuJI-B has links with Pakistan and Pakistan backed terrorist organisations operating in India like the Lashkar-e-Taiba (LeT) and Jaish-e-Mohammed, and is also suspected to have **orchestrated some terrorist activities within India**. It is also reported to have linkages with North Eastern Insurgent groups like the United Liberation Front of Asom (ULFA).

Another extremist group, **Jamaat-ul-Mujahideen Bangladesh (JMB)**, was formed in 1998 with the **aim of establishing Islamic rule in Bangladesh through armed struggle**. It has linkages with other radical Islamic terrorist groups in the subcontinent and has carried out numerous terrorist attacks. **Jagrata Muslim Janata Bangladesh (JMJB)** is an Islamist vigilante outfit and is reported to be an extension of **JMB**. **JMJB** follows the ideals of Taliban and had vowed to neutralise the activities of left-wing extremist groups, primarily the Purba Banglar Communist Party. **Ansarullah Bangla Team (ABT)** was reportedly formed in 2007 with the aim of imposing Sharia Law all across the Indian subcontinent. It has linkages to Al Qaeda and has been implicated in many terrorist activities in Bangladesh. ABT also has attempted to **spread its influence to India**. There are reports as well of some other groups like **Hizb-ut-Tahrir (HuT)** and **Hizb-ut-Tawhid** operating in Bangladesh. In addition to home-grown radical Islamist organisations, other terrorist groups in the subcontinent like LeT, Islamic State, Islamic State of Iraq and Syria (ISIS), Al Qaeda in Indian Subcontinent (AQIS) reportedly have some presence in Bangladesh.

In recent years, rise in fundamentalism was also spurred by the formation of **Hefazat-e-Islam** in 2010 in Chittagong under the leadership of Ahmad Shafi, purportedly to save Islam from alleged anti-Islamic policies and to end secularism. The group comprises of Sunni Islamists drawing on a vast *madrassa* network and supporter base, and had called for a revolution and creation of an Islamic State in Bangladesh under Sharia Lawⁱⁱ. Protesting against secular activism and supporting gender segregation, **Hefazat-e-Islam** evolved a 13-point agenda which increased its appeal amongst the conservative masses. Because of their popularity, even the Awami League reportedly used Hefazat-e-Islam to counter its political opponents including the Jamaat. Emboldened by its growing influence the Hefazat became even more hardline and initiated several violent protests including one during the visit of Prime Minister Modi in 2021 to celebrate Bangladesh's Golden Jubilee of independence, in view of which the Awami League government cracked down on its cadres.

Bangladesh is home to about **1.3 million Rohingya refugees staying in pitiable conditions**. They are easy fodder for radicalisation and recruitment into hardline / terrorist organisations. Pakistan backed **Arakan Rohingya Salvation Army** has links with drug smuggling and has infiltrated its cadres into India for subversive activities. The mushrooming of **illegal Rohingya habitations** in some cities in India has become a cause of concern for security establishments.

Contributing Factors

Bangladesh, which aspired to become a

moderate Muslim state espousing secularism with pluralistic ideals, has descended into radicalisation and intolerance over the years. In addition to external factors like the influence of Taliban and the ISIS, and the larger yearning for a Muslim Ummah, there are several internal factors that have contributed to rising fundamentalism. The first is **political opportunism**. Successive governments in Bangladesh have, at times, engaged with or appealed Islamist elements for pursuing their agenda and for electoral gains. The second factor is the **unregulated mushrooming of madrassas** and the conservative ideologies propagated in these religious schools that have spawned a significant radicalized group within the population. Some of these institutions became **the ideological breeding ground** for extremism. **Weak law enforcement and slow judicial processes** is the third reason for increased fundamentalism. Inconsistent enforcement of laws against hate speech, violence, and extremism, combined with slow judicial proceedings, has provided space for radical elements to act with impunity. **Online radicalisation** through social media particularly targeting the youth, is another major contributing factor towards increased radicalisation.

Bangladesh has witnessed widespread violence since independence caused by religious extremism, political rivalries and ethnic insurgency. **Violence against religious and ethnic minorities as also against political dissent** have characterised the nation since independence. Assassination of the founding father of the nation with most of his family members, followed by that

ⁱⁱ East Asia Forum, *Hefazat-e-Islam and the rise of Islamic fundamentalism in Bangladesh*, Roshni Kapur



Student Rally In Bangladesh, September 5, 2024 (Photo Rehman Asad via Reuters Connect)

of the military ruler, General Ziaur Rahman, are indicative of the level of **political violence in the country**. Islamic terror attacks have also increased substantially in the country targeting secular and pluralist voices.

Attacks on secular bloggers, religious minorities, and LGBT activists highlight the growing intolerance and brazenness of extremist elements. The **2016 Holey Artisan Bakery attack**, in which 22 people including foreigners were killed by Islamist militants, shocked the nation and the world. It marked a turning point in how the international community perceived Bangladesh's vulnerability to extremism. In recent years, there have also been violent protests demanding **stricter blasphemy laws** and opposition to policies perceived as "*un-Islamic*", often coordinated by hardcore Islamist organisations.

The Student Movement

The student movement and the accompanying violence responsible for overthrowing Sheikh Hasina Government on 5th August 2024 was reportedly **orchestrated by religious extremist elements** who were being persecuted by the Awami League

government. With the caretaker government assuming power under Nobel Laureate Mohammed Yunus, the Islamist parties were back in reckoning, influencing the subsequent removal of ban, inclusion in the caretaker government and release of incarcerated extremist leaders from imprisonment. Several radical leaders and terrorists, including Mufti Jashimuddin Rahmani (ABT Chief), Ikramul Haque, (Indian operations head of the ABT), Shamim Mahfuz (Jamaat-ul-Ansar Fil Hindal Sharqiya Chief), and Sheikh Aslam, **either escaped or were released**. Consequently, Islamic radicals and terror entities are currently operating freely in Bangladeshⁱⁱⁱ.

The **Jamaat-e-Islami** and

Hefazat-e-Islam have made efforts to unify all Islamic groups towards seeking to establish an Islamic State in Bangladesh. Terrorist groups like **JMB, HuJI-B** and **HuT** have increased their activities to dominate public space and to **exploit prevailing anti-India sentiments**. As per reports some Hamas leaders were also taken to Bangladesh by Pakistan's Inter-Services Intelligence (ISI) to propagate Jihadist ideology in Bangladesh and the Northeast. Mass killing of religious minorities and functionaries of Sheikh Hasina Government, and destruction of places of worship are continuing in Bangladesh with the interim government unwilling or unable to maintain law and order. The Assam Tribune news headline of 23 August stated that "*Mob justice replaces courts in Bangladesh under Yunus Government*" and highlighted that lynching has supplanted trial and masquerades as justice.^{iv}

Implications for India

These developments in Bangladesh have multiple connotations for India, particularly for the Northeast and West Bengal due to geography, ethnic ties and historical linkages. Migration from Bangladesh into the region over the years has caused social stress and created fear of marginalisation among the people in the Northeast leading to frequent unrests accompanied by violence. Bangladesh's growing Chinese footprint and thaw in relations with Pakistan after the caretaker government came to power portend increased challenges for India.

ⁱⁱⁱ ORF online 24 March 2025, *The Upsurge of Radical and Fundamentalist Islamic Elements in Bangladesh*, Kanchan Lakshman

^{iv} *Assam Tribune* 23 August 2025

Likely implications for India due to rising fundamentalism in Bangladesh are discussed below:

• **Transborder Security Threats.**

Radical groups in Bangladesh have historic links with terror outfits and sleeper cells operating in India's North-eastern states and West Bengal. The porous Indo-Bangladesh border is often exploited for smuggling arms, drugs, and for movement of militants. Siliguri corridor which connects the Northeast to the rest of the country is vulnerable to hybrid threats originating from fundamentalist Islamist groups. This soft underbelly can also be exploited by Pakistan due to its growing bonhomie with the present dispensation in Bangladesh.

• **Revival of Camps of Indian Insurgent Groups.** The Indian Insurgent Groups operating in the Northeast had their camps located in Bangladesh and were provided support by radical elements present there. Most of the camps were removed and a number of insurgent leaders were arrested and handed over to India when the Awami League was in power in Bangladesh. With increased radicalisation in Bangladesh, there are apprehensions that these insurgent groups will again establish bases there and consolidate with support from forces inimical to India.

• **Threat to Security in Border States.** Rising fundamentalism in Bangladesh is a security concern in states bordering it, potentially leading to unrest. On 20 August 2025 there was news of threats from Bangladesh to burn down

Indian villages near the border in Dhubri district of Assam. The threats were issued by **Jamaat-e-Islami** through voice messages over the mobile network to Indian villagers, asking them not to cooperate with Indian Security Forces. This incident is a clear manifestation of the nature of threats impacting security in border States.

• **Refugee and Migration Pressures.** Religious persecution or instability in Bangladesh has historically led to illegal migration into India, especially into Assam, West Bengal, and Tripura. Rising fundamentalism may result in further increase in migration which not only strains local resources but also exacerbates demographic anxieties.

• **Strategic and Diplomatic Concerns.** India and Bangladesh have generally enjoyed strong ties under the Awami League, but rising Islamic radicalism could pressure any future government in Dhaka to recalibrate its foreign policy. Any shift towards Islamist appeasement could alter Bangladesh's cooperation on regional security and connectivity projects. Cooperation from Bangladesh is mandatory for the success of regional forums like SAARC, BBIN, BIMSTEC and implementation of our 'Act East' and 'Neighbourhood first' policy. The Trilateral summit held in Kunming in China on 19 June 2025 by senior officials of Pakistan, China and Bangladesh to foster greater cooperation in economic and cultural sectors is alarming indicative of possible recalibration of regional alignments detrimental to Indian interest.

• **Threat to Integrity of Northeast.** A map was published of **Greater Bangladesh** including entire Northeast, West Bengal, and parts of Odisha, Bihar and Jharkhand on 14 April 2025 at Dhaka University by an

organisation named "**Sultanat-e-Bangla**".^v While the idea of **Greater Bangladesh** may be dismissed as a pipedream in present circumstances, the desire to include Assam as part of East Pakistan dates back to pre-independence times. Before independence, the grouping system initiated by the British as part of the Cabinet Mission Plan classified Assam and Bengal as Group C states while Group A comprised of Hindu majority provinces and Group B comprised of Muslim majority provinces. This raised fear of Assam being made part of East Pakistan and was fiercely opposed by Gopinath Bordoloi, who went on to become the first Chief Minister of Assam after independence. The grouping system fell through due to stiff opposition. Even prior to independence, as per the line system brought in by the British in the name of growing more food, Muslim farmers of East Bengal (now Bangladesh) were settled in some districts of Assam. This was reinitiated by Syed Mohammed Sadullah when he was the Prime Minister of Assam from 1937 to 1946, ostensibly at the behest of the Muslim League to convert parts of Assam as Muslim dominated provinces to merge with East Pakistan. Even Lord Wavell, the then Viceroy is reported to have queried, "*Whether it is 'Grow More Food' or 'Grow More Muslims'?*"^{vi} While Greater Bangladesh as envisaged may not come through, revival of Muslim fundamentalism in Bangladesh poses a definite threat to the demography and socio-cultural identity of Northeast.

India's Response and Policy Considerations

Rising fundamentalism in Bangladesh over the years, now given

^v India Today Newsdesk, 01 August 2025, *Islamist outfit issued 'Greater Bangladesh' map with Indian areas? Here's the fact*, Anand Singh

^{vi} The Sentinel, 14 August 2025, *Gopinath Bordoloi, the grouping plan and Assam's future* Dr Swapna Manindranath Deka and Dr Indrani Medhi

further impetus by the events following the change of government in August 2024, has spurred security and border management concerns for India. The anti-India sentiments being promoted among the masses by the Islamist forces impact the desired normalisation of bilateral relations. As a responsible neighbour and a rising power, India must adopt a nuanced approach to address this challenge inter alia encompassing the following:

- **Engagement.** Strategically, India needs to engage with the Bangladesh government to maintain good bilateral relations focusing on shared interests like security, counter terrorism, humanitarian assistance, trade and connectivity. Dialogues with all segments of society in Bangladesh are required on mutual concerns and their possible remedies. India also needs to strengthen regional cooperation to address the common threats of Islamic terror, encouraging Bangladesh to uphold its democratic and secular credentials.

- **Counter Terrorism.** India needs to engage with Bangladesh and other regional neighbours regarding rising terrorist activities in the region and strengthen bilateral and regional mechanisms like the Joint Working Group on Counter-Terrorism to share intelligence and conduct coordinated actions against terror networks.

- **Border Management.** Concerted efforts are needed on effective border management with cooperation between the border guarding forces of both the countries to root out infiltration and other transnational crimes. Border infrastructures like surveillance grid, communication network and fencing need to be made smarter by technology insertion.

- **Humanitarian Concerns.** The continued targeting of the minority community in Bangladesh needs to be raised with the Bangladesh government with concurrent focus on promoting people-to-people ties, academic exchange, and civil society collaborations. The historical ties, shared culture and values, common language and customs must be highlighted in seeking a common platform to address present challenges.

- **Contingency Plans.** The evolving political and security situation in Bangladesh needs continuous monitoring to anticipate potential challenges and

opportunities. India needs to develop viable contingency plans to deal with any emerging crisis originating from Bangladesh in the form of potential refugee influx or cross-border terror incidents. Addressing all forms of possible threats to vulnerable Siliguri Corridor is a *sine qua non* for ensuring connectivity to the Northeast.

- **Manage Public Perception.** Rising anti-India sentiments in Bangladesh need to be addressed by a mature and nuanced approach. Promoting people-to-people ties encouraging cultural exchanges, youth programmes, and tourism would help in removing misplaced apprehensions. Respecting the sensitivities of the Bangladeshi populace, Indian media must ensure responsible reporting and discourse on the Bangladesh situation to avoid inflaming passions and hardening of negative sentiments.

To Sum Up

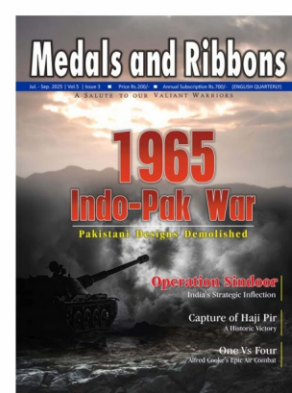
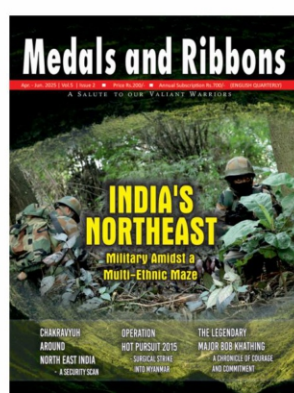
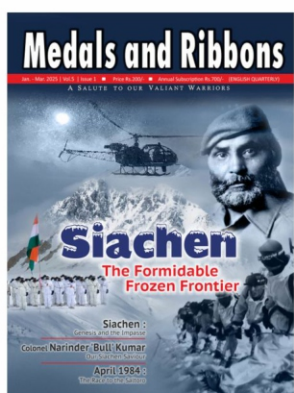
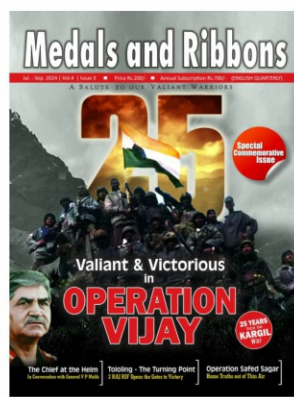
Latent pro-Islamist undercurrents in Bangladesh received a fresh lease of life after the recent regime change, leading to a consolidation of fundamentalist forces, who intend establishing an Islamic state ruled by Sharia law. The elections likely to be held in February next year may see further consolidation of these forces with patronage of political parties. Radical Islamic forces are also likely to exploit the prevailing anti-India sentiments amongst the populace to target Indian interests in the region with overt as well as covert support from inimical forces like Pakistan. The present situation in Bangladesh poses a serious challenge to India's national security and border management, as also to the peace and stability in the region. Of particular concern is the Siliguri corridor and the connectivity to the Northeast. India needs to support Bangladesh in preserving its secular and democratic values, while keeping Islamic fundamentalist forces at bay. India's response to Islamic fundamentalism in Bangladesh needs to be nuanced; with equal focus on security cooperation aimed at maintaining regional stability and measures in protecting its own interests.



Lieutenant General RP Kalita, PVSM, UYSM, AVSM, SM, VSM (Retd) was commissioned into 9 KUMAON in June 1984 and served for four decades in some of the most challenging areas. He commanded a Rashtriya Rifles battalion and an Infantry Division in Kashmir, and a Corps in Northeast India. In addition to numerous important staff and instructional appointments, he has served twice in UN peacekeeping missions. He was the Eastern Army Commander prior to his superannuation on 31 December 2023 and has settled in Guwahati. Presently he is the Chairman 7th Assam State Finance Commission and is a visiting Professor in Guwahati University.



Lt Gen RP Kalita



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