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India's Assertiveness
in
Widening Spectrum
of
Modern Warfare

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Abstract

Modern warfare has evolved into a persistent, ambiguous conflict, relying on asymmetric and non-kinetic strategies beyond traditional military engagements. Hybrid warfare, integrating advanced technology and non-military domains, demands a shift from threat-based to capability-driven defense structures. Nations must adopt proactive strategies that combine deterrence with offensive capabilities to counter emerging threats and reclaim strategic positions.

Keywords: Hybrid warfare, asymmetric conflict, non-kinetic strategies, capability-driven defence, offensive deterrence

Introduction

War has evolved into a state of persistent conflict driven by actors shrouded in ambiguity, employing asymmetric methodology and encompassing all elements of national power. Wars are no longer necessarily declared by the governments as having begun and seldom proceed to a conversant template. The applied methods of conflict have steered surreptitiously towards non-contact and non-kinetic means of achieving political goals, thus inhibiting the optimal application of conventional military resources. Warfare has permeated into domains other than military as a mechanism to confront the adversary, although without altering the objective of war. War has gradually gravitated from solely military to hybrid domain involving niche technology and space spectra. This forces a reorientation of the nations to include non - military components as a pre requisite for war fighting. There is a need for paradigm shift from threat based forces to capability driven structures with substantial offensive content so as to create not only punitive deterrence but offensive intent as well.

Demystifying Character of War

War is the means to achieve political aim which necessitates a strong political will to step into all-out war. Clausewitz highlighted a relationship between purpose, goal and means. "Purpose of war is the nation's will to be enforced. The goal of the conflict is to defeat the opponent in order to impose the purpose. All resources of a nation serve as means to achieve

the set goal”.(Carl Von Clausewitz, 1982) Clausewitz further highlighted a correlation between end, ways and means where “End = Ways + Means”.(Jeffrey W. Meiser, 2016)

“The nature of war is imposition of own will on the adversary and is constant. The character of war are the ways to employ force to achieve the end. It is an instrument of change and constantly evolves under the influence of technology and culture including military”.(India Today, 2021) As we gravitate towards the “In an era of contested equality, the nature of warfare is evolving rapidly across multiple domains, reshaping strategies, technologies, and global power dynamics.”(HQ IDS, 2017) The known is becoming unknown; the predictable is becoming unpredictable. Due to technological advancements, kinetic facets of war have enhanced their reach along with the effect and non-kinetic domain has attained much greater importance. The dominance of information is the new character involving cyber, space, technical reconnaissance, psychological and electronic means as tools of modern war fighting.

Technological improvements in artificial intelligence & biotechnology, realignment of economic power and influence of social media have altered the way of modern war fighting. The enhancing importance of application of non- kinetic means to ‘**win without fighting**’ is the new essence. The modern war is being fought in the virtual domain enmeshing various facets of technological advancements to occupy human minds to influence public opinion. Evolving technology offers new capabilities to modern forces - enhanced decision making, unmanned / robotic platforms and drone swarms. “The maturation of artificial intelligence, digital twins, machine learning, nano – technologies and high-density energy sources steer the evolving character of war”.(Colin S. Gray, 1996) Thus, the primary drivers of changing character of war are impact of emerging technologies, influence of social media and economy.

Technology Infusion in Multi Domain Warfare

The recent war fighting has steered towards Multi Domain Warfare which is a military concept that involves integrating operations across multiple domains including land, air, sea, space and cyberspace. The evolution of “Multi Domain Precision Warfare (MDPW) with enhanced C4ISR (command, control, communication, computing, information, surveillance and reconnaissance) capabilities”(Shekhar Gupta, 2022) has further meshed into the way the modern wars will be fought. It involves development of network information systems encompassing big data & artificial intelligence, identify key vulnerabilities of the adversary and decapitate it without fighting. Thus, wars will be fought in cognitive domains and information warfare will be utilized effectively to target enemy’s will, even before the battle is

joined. “Electronic Warfare (EW) involving use of the electromagnetic spectrum (EM spectrum) and denying the opponent unimpeded access, will be employed as an effective tool”.(George Shambaugh, n.d.) Co-opting advancement of technology & artificial intelligence in EW will further enhance its technical and operational efficacy. Domination of space / space-based assets for intelligence, communication, navigation and meteorology do have an impetus on the character of war.

Russia’s invasion of Ukraine has drawn numerous lessons for modern wars. It has first ended a protracted period of grey zone conflict between two technologically advanced nations. “It has demonstrated that the misnomer of modern wars being short and swift probably requires a revisit”.(Lt. Gen. Raj & Sameer, 2022) Increased relevance of geopolitics and provision of overt / covert support by partner countries has also played up effectively. The influence of social media and mind dominance has displayed its effectiveness as a tool. The battle to shape domestic and global opinion is emerging as a significant element of modern war fighting. This new war has showcased “participation of private companies as direct actors - Elon Musk’s Starlink services are helping Ukrainians to stay online, facilitating its social media campaign”.(The Economist, 2022a) It has opened the door for sophisticated propaganda that can sway perceptions across the world. “The same tool is being effectively exploited by the West in shaping world opinion against Iran”.(The Economist, 2022b) The aspect is distinctly visible in environment in Israel – Hamaz conflict as well. It is this war of narratives affecting domestic and international opinions that has a bearing on the perceived end.

Cyber Domain of Warfare

Cyber warfare is an effective means of fighting modern wars. Both state and non-state actors will be employed from within or third country. The dividends accrued due to plausible deniability keep it at a higher pedestal for gaining effective mileage. They would be “employed to carry out physical attacks to disrupt critical services like power, medical, traffic control etc. to create a complete chaos in entire country”.(Lt Gen Abhay Krishna (Retd), 2022) The same has been witnessed in a subtle manner with disruption of national power grid and hacking of server of the All India Institute of Medical Sciences (AIIMS) in the recent past. Targeting financial institutions including stock exchanges and banks to disrupt the financial services will also have serious implications. The importance of this warfare can be gauged from the fact that cyber teams from US were the first responders in Ukraine against the Russian cyber-attacks long before the commencement of the actual war.

The cyber-attack on Mersk Company of Ukraine, disabling of the entire heating system in Georgia and shutting down of the entire power grid of Argentina, are few examples of the non-contact warfare in the recent past. Reportedly, majority of the attacks have been observed in data centers / IT / ITeS sector, manufacturing and finance sectors. While Microsoft hack sees emails stolen from US agencies, the HCA Healthcare data breach impacted nearly 11 million patients. Ransomware groups are also known to have targeted critical infrastructure including oil, gas, transport and power. Several US federal government agencies have reportedly been hit in a global cyber-attack by Russian cyber criminals that exploit a vulnerability in widely used software, according to a top US cyber security agency. Reportedly, an estimated 2,200 cyber attacks take place every day. Mr S Somanath, the Chairman of ISRO, speaking on the concluding session of the 16th edition of the Cocon Conference in October 2023, a two-day international cyber conference at Kochi, said that “*the country's space agency was facing more than 100 cyber-attacks daily*”(Surendra Singh, 2023). Many such examples are undetected as also endless.

Nation States and non-state actors are capable of targeting the adversary's military / civilian infrastructure at increasing ranges using plethora of conventional and unconventional means. A force being deployed in a combat zone will be vulnerable at all stages - peacetime locations , during mobilization and deployment using Precision Guided Munitions (PGMs), hypersonic conventional weapons and non-kinetic means. “Robotics, unmanned platforms and man - machine teaming activities do have a stern impact on the character of war”.(Atique Ur Rehman, 2021) The focus in the recent conflicts has been on use of unmanned aerial platforms like drone swarms and unarmed combat aerial vehicle whose application in future war fighting will enhance manifold. The warfare still will revolve around man behind the machine. “Thus, modern forces will have to consider enhancement of man – machine interface and develop a sizeable, trained force who can adapt to advances in technology”.(Colin S. Gray, 1996)

Armed forces of all developed countries of the world are rapidly enhancing their capabilities in cyber, space, robotics, directed energy weapons and quantum technology. Both US and China are already into developing Artificial Intelligence in a big way and coming out with a robotic-powered standing army. Niche technology has become the backbone of any military power where direct one to one physical contact is avoidable.

Economic Domain of Warfare

The domain of economic warfare will involve cooperation with its geopolitical partners and cause maximum destruction to adversary's economy to denude his war fighting capability. Control of natural energy resources has a serious impetus on the economy of a nation. "Blockade, control of supply lines, sanctions, suspension of aid and targeting capital / energy assets will be used as tools of economic warfare".(George Shambaugh, n.d.) The control of Sea Lines of Communication (SLOC) to dominate waters will be orchestrated by the nations. This significant facet has a direct bearing on war waging capability of a nation, hence it will be used as an effective tool in modern wars.

Grey Zone Warfare

The employment of Grey Zone Warfare is the new flavor enmeshed in the way of fighting to accrue maximum dividends with skewed employment of resources. As per Sun Tzu, *"To win one hundred victories in one hundred battles is not the acme of skill; to subdue enemy without fighting is the acme of skill"*(MIT, n.d.)

In today's complex geopolitical contours, traditional conceptions of war and peace have become increasingly blurred. The principal feature of that environment is persistent and perpetual conflict. One term that has gained prominence in the recent years is the 'Grey Zone' activities. Grey Zone is a metaphorical state of being between war and peace, where an aggressor aims to obtain political objectives. It is waged in multiple domains and dimensions of key battle spaces directly impacting the adversary. These domains may be ideally dispersed like maritime, aerospace, cyber, intelligence operations, information and virtual sphere dictated by niche technologies. Grey zone warfare strategies include cyber-attacks, disinformation campaigns, economic coercion, irregular and indirect warfare and other non-traditional tactics. These actions are often designed to exploit vulnerabilities of the targeted adversary and create ambiguity, making it difficult for the targeted nation to respond decisively.

Whole of Nation's Approach

War evolves from a strong political will and is a whole nation's approach. It takes into account other pillars of national power to achieve sound national security. In this new era of 'Contested Equality', our nation's adversaries seek to achieve their strategic aims, short of conflict, using layered stand-off in the political as also Diplomatic, Information, Military and

Economic (DIME) realms. “The inter - relationship between DIME does require a closer integration across all elements of the nation and joint decision-making bodies will need to quickly and effectively deliver DIME effects across the physical, cognitive and moral dimensions”.(Konstantin Khomko, 2019) Military operations are an essential element in this equation but may not necessarily be the decisive means of achieving an end state. Thus, a joint and concerted effort of all pillars of national security duly incorporating well knit ‘*Civil Military Fusion*’ is required to influence the outcome of war.

“Conflicts of the 21st century around the world have clearly demonstrated that the forces which are smaller, lighter, technologically superior and highly trained have greater chances of success. Larger forces are easily discernable, targeted and require heavier logistics support to sustain. Hence, an integrated force with leaner architecture and technological edge over adversary will be advantageous in future wars. The integration and leveraging advanced technological innovations are an important facet which will play a pivotal role in enhancing the war fighting capability of a nation”.(India Today, 2021) The development of defence industrial capability and lesser dependence on partner countries would definitely enhance the sustenance capability to tackle protracted conflicts. The infusion of civil requirements of infrastructure developments and logistic support will be exploited and will pay rich dividends. Hence, a deeper public - private fusion is necessitated, which will influence the character of modern wars.

India's Resilience and Assertive Stature

India is untiring in instituting relentless diplomatic effort at maintaining strategic autonomy in a multi-polar world, without binding alliance, which has paid off well. It has managed to develop strong mutual interest and issue-based ties individually with all major powers of the world. India is also member of multi alliances be it the United Nations (UN), G-20, QUAD, the Shanghai Cooperation Organisation (SCO), BRIC, signing of Logistics Exchange Memorandum of Agreement (LEMOA) with the US and other such binding international agreements. The recently concluded G-20 summit at New Delhi has shown the centrality of India with Mantra of ‘*Vasudhaiva Kutumbakam*’ as also gravitate towards idea of ‘*Vishwa Mitra*’ with its dynamism and inclusivity, by aligning with everyone instead of passive neutrality. India has over a period of time become more confident globally. While it has rubbed shoulders in its gravitation towards progression with the West, it has played a major responsible

role in the South. It has proved to be a major balancer and responsible negotiator in the recent conflicts.

Today, India is the fastest growing economy in the world, scaling to the fifth largest and predicted to be the third largest economy by 2030. As per UN Department of Economic and Social Affairs, “India’s economy is forecast to expand by 6.9 per cent in 2024 and 6.6 per cent in 2025, mainly driven by strong public investment and resilient private consumption”(Gera Ishaan, 2024). Probably, it is the ‘*Atmanirbhar Bharat*’ programme which has brought about a major change in the outlook - in which the defence sector got a gigantic boost under a well-planned roadmap treating it as a critical sector for boosting the Indian economy. Despite budgetary constraints, our military modernisation has witnessed significant thrust in the recent past. In the pursuit to voyage from largest importer to significant exporter, India has already started to increase her military exports by making significant inroads in countries such as the Philippines, Armenia as also countries in South East Asia, West Asia and Africa. Trial and negotiations are on with many other countries in respect of indigenously produced defence equipment. “Defence exports have touched a record Rs 21,083 crore (approx. US\$ 2.63 Billion) in the Financial Year (FY) 2023-24, a growth of 32.5% over the last fiscal when the figure was Rs 15,920 crore. The recent figures indicate that the defence exports have grown by 31 times in the last 10 years as compared to FY 2013-14”(Ministry of Defence, 2024). One encouraging factor to note is that the “defence industry including the private sector and Defence Public Sector Undertakings (DPSUs), have made tremendous efforts in achieving the highest-ever defence exports. The private sector and the DPSUs have contributed about 60% and 40% respectively”, which highlights emerging Public – Private partnership. Pertinent to highlight are the structured evolution of ‘Defence Manufacturing Hubs’ with indigenous defence manufacturing infrastructure as also India’s space exploration through satellites, thus, reducing dependence on the foreign partners is an applaudable effort indeed and will further strengthen the existing set up.

Conclusion

“The modern wars will not only be fought between the big powers but also based on ideologies and national interests”. Comprehension of the modern war will require a thorough appreciation of war as a total construct. Employment of cognitive domain along with kinetic means will be exploited by the modern forces to dominate the conflict at all stages. “There will be lesser self - imposed restrictions on the use of hybrid domain involving

technologically infused information operations, cyber warfare, terrorism and economic warfare in order to prevail over an enemy's will".(Capt Gerard Roncolato, 2022) The integration of war fighting resources (military and non - military) will add to the capability of the nation. The character of war is dynamic and keeps changing with advancement in technology and means. The '**whole of nation's approach**' will be the mantra for comprehensive success in any conflict. Moreover, the nation which adapts to these changes earlier will be at an advantage during modern conflicts. India, an '*assertive power*' needs to adapt to the fast-paced changes to ensure its resilience in today's changing character of war.

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