

THEME: EMERGING CONTOURS OF FUTURE WARFARE IN THE TRI-SERVICES DOMAIN

CONCEPT NOTE

As old as the human race is, so are the conflicts and wars fought by it to gain control over resources and influence over populations. However, the manner in which these wars have been fought has evolved over centuries, the change driven primarily by evolution of technology. The era of soldier-to-soldier contact battles fought by massed armies (First Generation Warfare) gave way to industrial warfare with the advent of muskets and rifles, and later machine guns and artillery for indirect fire, because of their advantage of improved range, accuracy and rate of fire (Second Generation Warfare). The invention of military aircraft, armoured vehicles, and use of airborne forces brought with them the benefits of speed, surprise and stealth transforming linear warfare into manoeuvre warfare and bringing about major changes in warfighting concepts and strategies (Third Generation Warfare). Fourth Generation Warfare was characterised by the conflicts between states and non-state actors, wherein the latter acted against the interests of the former. However, post-cold war, there was a belief that increasing globalisation would discourage nations going to war against each other as their economies were becoming more and more interconnected. Nations even started downsizing their armies. The advances in technology brought about the Fifth Generation Warfare which non-kinetic actions cvberattacks. misinformation/ disinformation, social engineering, etc, were seen as occupying the primary role. However, the unending Russia-Ukraine War and the extended Hamas-Israel conflict that involves the Hezbollah, the Houthis, and Iran too, and have killed and displaced thousands, have proven the beliefs of globalisation preventing wars between nations and of wars being short and swift to be misplaced to a certain extent.



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War has proven itself to be a resilient concept and only the ways and means of conducting it have changed with time, technology being the main driver. The aim of erstwhile violent wars - compelling the opponent to comply to one's will – is being achieved by more than one method. Today, the world sees nations as well as non-state actors exploiting the products of technologies, in most cases, developed for the betterment of humanity, being used against it. Social engineering is being used to modify the behavioural patterns of the populations, one nation meddling with the electoral process of another, a nation creating propaganda to control the narrative in order to justify its actions against another nation, non-state actors turning citizens against its country and fellow citizens. Cyberattacks are launched against key infrastructures of a nation in order to cripple it, by perpetrators unknown. Space is continually being militarised to carry out multifarious activities from keeping an eye on the adversary (ISR) to hosting offensive capabilities. Artificial Intelligence and Machine Learning, Autonomous Systems, Drones, etc., while being utilised to make human functions easier, more efficient and effortless are also being used to develop weapon systems that are more lethal, precise, far reaching and dangerous, able to act on their own without any human intervention

There is a shift in geopolitical power play which has led to nations weaponizing every possible resource that they can to impose their will on other nations of the world and force them to align with them or, at the least, discourage them to align with their adversaries. Water, rare earth minerals, trade, finance, supply chains and even climate and climate change are being weaponised for gaining control and influence and arresting growth and development of the adversary. What can be said about the contemporary threat scenario is that conventional threats may have become less prominent but remain significant still, while threats in the grey zone are growing in variety and becoming potent by every passing day enabled by technological advancements.

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A nation like India, which has active land borders and maritime borders that are threatened by our Northern neighbour, is afloat in waters infested with full spectrum of threats. The Western neighbour, though not technologically advanced but is a nuclear power as well as functions in close collusivity with our Northern neighbour. It has been brewing troubles across the border since independence and poses conventional as well as hybrid threats. The Northern neighbour has gained significant gap technologically as well as militarily and poses threats in all domains. Therefore, India faces a unique situation where it needs to build and maintain significant military capability, both qualitatively and quantitatively, as well as develop capabilities to be able to counter the multi-domain threat scenario. The defence forces need to be an integrated futuristic force that is capable of withstanding the contemporary challenges. Meeting the requirements of national defence needs to be a whole of nation approach. Many of the capabilities needed are common to the three services. The emerging contours of future warfare present unprecedented challenges to the nation and, therefore, the armed forces. The 2nd Edition of the 'Joint Doctrine of the Indian Armed Forces' published in April 2017 recognises the character of future wars to be "ambiguous, uncertain, lethal, intense, precise, non-linear, unrestricted, unpredictable and hybrid". Therefore, existing policies need to be evaluated and suitable strategic frameworks are required to be worked out to guide military planning and conduct of operations in a security environment that is becoming increasingly complex. Critical and emerging technologies like artificial intelligence and machine learning, quantum computing, blockchain, advanced sensors, and autonomous and unmanned systems need to be leveraged to upscale comprehensive national power. Lessons should be drawn from the on-going conflicts and should be suitably applied in context of India and its role in the current geopolitics. An integrated approach to capability building for the tri-services is the need of the hour.



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CENJOWS invites papers for the next edition of its Synergy Journal: August 2025 issue covering subjects, though not limited to the following aspects, with special focus on the joint warfighting:-

- · Artificial Intelligence in Military Decision-Making
- Strategies for defending against cyber threats and integrating cyber capabilities across the tri-services
- · Unmanned Systems and their Tactical Applications for Future Warfare
- Integrating Multi-Domain Operations in a Complex Threat Environment
- · Geopolitical Shifts and their Impact on Military Strategy
- · Human Factors in Technologically Advanced Warfare
- The Ethics of Autonomous Weapons
- Mental Resilience and Adaptation in Military Personnel
- The Future of Naval Warfare (including the rise of unmanned vessels and cyber capabilities at sea)
- The Impact of Non-State Actors on Traditional Military Strategies
- · Artificial Intelligence in Intelligence Gathering and Analysis
- · Integrated Logistics in Multi-Domain Operations
- · International Military Alliances and Partnerships
- Implications of Space-based Technologies and Strategies for Future Warfare.
- · Urban Warfare in the Age of Technology
- Innovations in Aerial Combat and the Integration of Air Power with Ground and Naval Operations.
- Hybrid Warfare and the Changing Nature of Conflict
- · Policy Recommendations for Future Military Strategies
- · Lessons Learned from Recent Conflicts



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GUIDELINES

- ➤ Research papers of 3000-4000 words, Font Size 12, Font Style Arial, 1.5 Spacing and Chicago Style Referencing is mandatory for review. A short abstract of 200-250 words must be submitted with the paper.
- >The paper should be more specific to one of the sub-themes as brought out at the end of the concept note rather than being loosely related to the larger theme of the journal.
- > Refer to: Guideline for Contributors and Write for Us.
- ➤ Appropriate Honorarium will be paid for articles selected for publications after peer review.
- >Deduction of INR 500 if repetitive AI and Plagiarism check has been done by CENIOWS.
- ≻12 to 15 papers for the SYNERGY Issue will be printed and other selected papers will be published on the CENJOWS Website.
- ➤MI or Equivalent Clearance submission is mandatory for serving Officers of the Indian Armed Forces.
- ➤Though article submission date is 28 February 2025 latest, earlier submission will be appreciated.
- ➤ Prospective Contributors are requested to seek further details and submit their papers on:

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