



## 4C Battlespace is the New Norm



**Wing Commander Swaim Prakash Singh**

*Senior Fellow, CAPS*

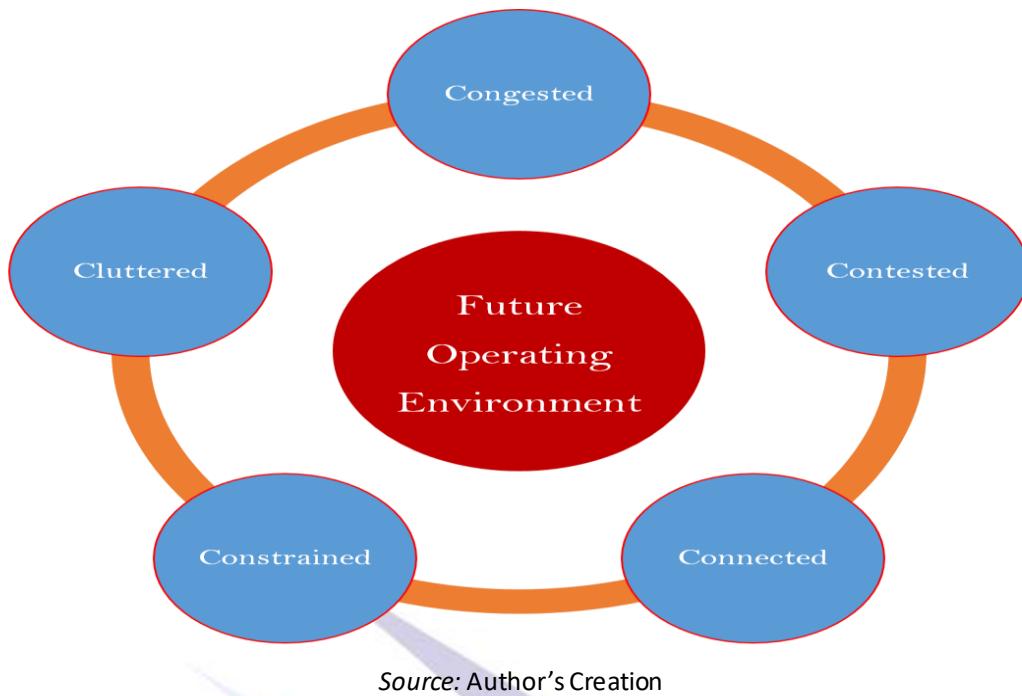
*26 September, 2022*

### Introduction

The Russia-Ukraine conflict has entered its eighth month and there are fewer signs of it coming to an end. It can only be wished that the dropping temperatures and freezing terrain could be the overriding factors to end this conflict and return lives to normal. Witnessing this kind of conflict in the present age once again indicates that war has no norms, limits, or boundaries. Also, adopting the military means of force under the garb of 'special military operations' is making the battlespace more complex and blurred in all domains of warfare, especially in urban areas. The Russo-Ukrainian conflict has not yet ended, but the lessons learnt thus far indicate that this conflict is another example of the "congested, contested, cluttered, connected, and constrained" nature of modern warfare.<sup>1</sup>

The Development, Concepts, and Doctrine Centre (DCDC) 2010 of the United Kingdom came up with the name 'NATO 5Cs' to define the future character of conflict characteristics of the joint battlespace in 2014.<sup>2</sup> Underpinning DCDC's Global Strategic Trends –2035 is the idea that the future operating environment will be highly manifested with the 5C's. It translates into the fact that military forces will be required to fight in urban settings more frequently, as is happening in Ukraine. The Indian Chief of Air Staff has also emphasised these factors on many forums and has further modified them as 4C and 4R in the Indian context as "The battlespace is going to be Cluttered, Congested, Contested, and Complex". He also emphasises that in order to mitigate these factors, military forces must "Reimagine, Reinvent, Rededicate, and Retrain" themselves for future conflicts. He further describes its complexity as "The ongoing Russia-Ukraine conflict is the first time we are witnessing the unfolding of 'truly hybrid warfare' and is a reflection of complete multi-domain operations that are taking place, and there is a lot to learn from it."

1 | <https://capsindia.org/>

**Figure 1: Representation of NATO 5Cs by DCDC 2010**

### Russo-Ukraine Conflict in 4C Environment

Taking cues from the ongoing conflict, it can be deduced that urban combat is militarily difficult and the urban environment is perhaps the most complex of all the environments in which the military operates due to the physical terrain, congested spaces, and the presence of a civilian populace. The abundance of highly developed target acquisition and intelligence gathering systems does provide a relative advantage. However, asymmetric forces, as well, have mastered the use of low-tech weapons like IEDs and small-arms fire to significantly harm forces with more advanced technology. This supports the idea that urban combat is still a bitter conflict that depends on intense and long-lasting close-quarters fighting and that political leaders will need to be careful when deciding whether or not to use military forces in the urban conflict.

In a networked age, where global media provides almost instantaneous access to information, political leaders deciding to wage a war must be aware of how expensive and labour-intensive urban warfare is when trying to influence peoples' mind at domestic and international levels and build a strategic narrative as part of the political signalling. On the one hand, as seen in the Russo-Ukrainian conflict, commanders could use massive firepower through various means to make fighting in urban areas easier. Even though it made the operation more effective from a tactical point of view, the damage to civilians and infrastructure made it more traumatic from a political point of view. On the other hand, commanders can limit the physical use of military force by restricting the

use of heavy weaponry and armoured systems. However, this could make the campaign last longer and cause more and more people to die. As evident in the nine-month-long fatigued conflict, there are approximately 14,000 official casualties, but the actual numbers are likely considerably higher.<sup>3</sup> Therefore, finding the right balance between the liberal and conservative use of physical military force in the urban areas will be the biggest challenge for political leaders and military commanders in the future as well as in the current conflict.<sup>4</sup> It would be imperative to understand these terms as learnt from the present ongoing conflict and as described in the founder documents of the future operating environment.

### **Cluttered**

In urban warfare, the crowded environment makes it difficult and problematic to easily distinguish individuals, items, or events. It will be difficult to apply military effects with precision and discrimination if the battlespace remains cluttered. As the requirements for legitimacy continue to get stricter, it will become increasingly difficult to acquire, understand, track, and engage in conflict with potentially ambiguous targets on an urban battlefield. As was witnessed in Afghanistan over the past year, collateral damage will pose a greater threat. On land, the enemy will take advantage of underground facilities, neutral areas like schools, hospitals, and places of worship, as well as densely populated urban areas ranging from small towns to major cities. Stealth technology will continue to be an advantage in cluttered environments, but it will not necessarily be a decisive advantage. Even relatively insignificant hostile groups will be able to achieve strategic effect against the most powerful opponents if they have the ability to remain covert while attacking at range with plausible deniability in cyberspace. This will provide the opportunity. The cluttered battlespace may often result in the inability to discern between friend and foe, especially in a heightened situation, as has been seen on many occasions in this conflict and post-Balakot strike in 2019.

### **Congested**

There will be civilian, commercial, and military activity in all environments, including land, sea, air, space, cyberspace, and electromagnetic space. Armed forces may try to avoid operating in areas with a lot of people or traffic because it limits their ability to move around. But military power will have to be used wherever it is needed because crowded places can't always be avoided. With the spread of technology, there will be more friendly, hostile, and non-aligned airspace users, including unmanned aircraft. This will make the airspace just as crowded. More and more space operators will launch their own rockets, and more commercial use of satellites will make orbital space more

crowded. There will also be more players in the electromagnetic, information, and cyberspace environments. All of the physical, mental, and virtual worlds will also become more connected to each other. At this point, it is easy to conclude that the factor of congested battlespace has been one of the most significant contributors to the Russians' poor operational art, resulting in an unclear end state and blurred conflict termination criteria.

### Contested

Adversaries will contest any environment where they can deny us freedom of movement. The challenge will be based on how technologies spread and how they are used in new ways. On land, mines and improvised explosive devices (IEDs) can make it hard to move unhindered on the battlefield. Access from the sea may be jeopardised due to the maritime environment's requirement for operations in the littoral due to an increase in the capability of mines, submarines, fast attack craft, and anti-ship missile systems. Similarly, the ability to operate in the air will be contested, especially in the lower airspace called the Tactical Battle Area (TBA) and around air bases with anti-access and area denial capabilities. The adversaries will attempt to restrict access to the operational area. It may do so directly by employing missile barrages, UAV swarm attacks, or by mining the approaches to the operational areas. They may also do it indirectly by trying to change political will and public opinion by hitting the centres of gravity (CoG). Present warfare is becoming more and more dependent on the cyber environment, where things will happen both on their own and in coordination with military attacks. The difficult part will be figuring out where these competitions are just about being competitive and where they could lead to conflict or discord. Also, failure to recognise the distinction may result in a miscalculation. The fact that the Russians couldn't take Kyiv and the Hostomel airfield in the first four days of the war shows how contested the airspace and battlefield were, leading to huge miscalculations and a tactical blunder that altered the course of the war right at the beginning of the war.

### Complex

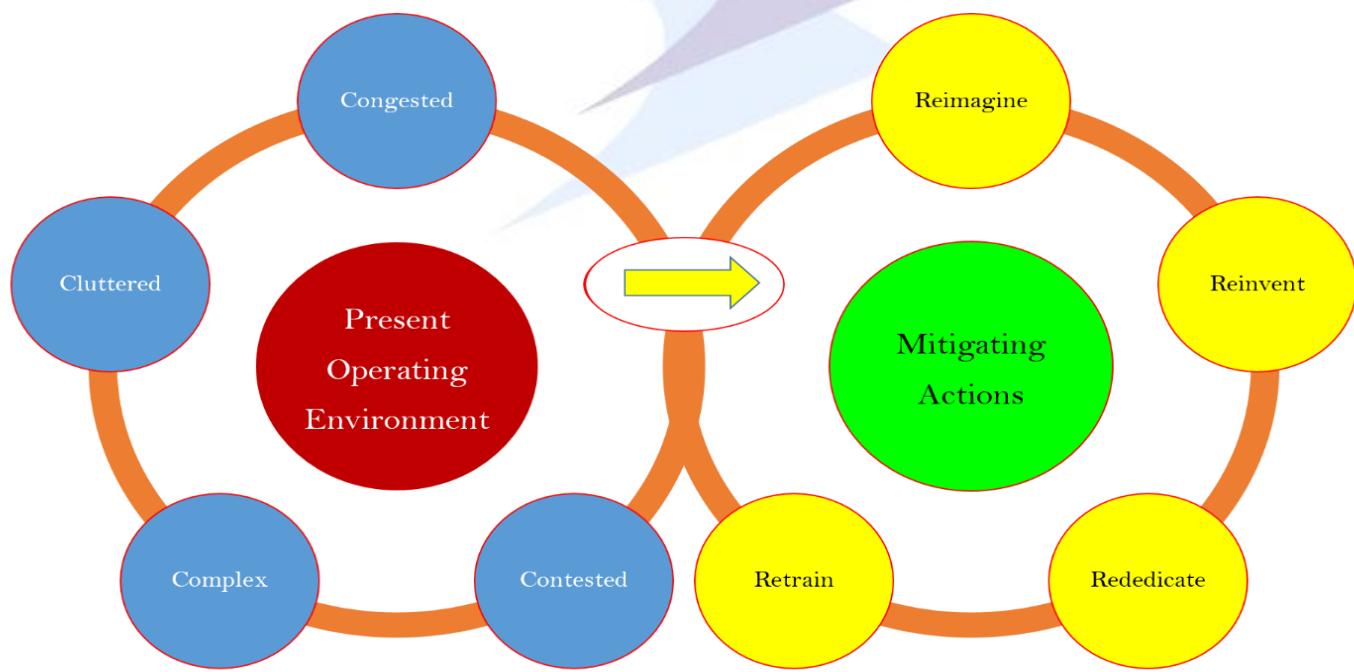
Often, the term "complex" is used to describe modern warfare, with its increasingly urbanised and cluttered battlefields. It may also be the emergence of non-state actors or anti-national elements that exploit the governance void. The introduction of new technologies such as autonomous weapons, cyber capabilities, and unmanned aerial systems further complicates military operations in such a scenario. Powers outside the battlefield constantly influence how war is fought. These powers complicate the battlefield environment for military operations. The constantly shifting nature

of how and where wars are fought complicates the application of the permanent body of international law that governs armed conflicts. Even the application of multiple legal regimes to a single conflict complicates the operating environment, such as when the Russians refer to an invasion and full-scale war as a "special military operation." These factors collectively serve as the foundation for the Complex Battlespaces.<sup>5</sup>

## Conclusion

Carl von Clausewitz, describing the role of friction in warfare, wrote, "Everything in war is very simple, but the simplest thing is difficult." Changes in the nature of warfare over the past two centuries suggest that things may not be as simple as they once were, despite the fact that war has always been and always will be extremely difficult. The difficulties encountered by the Russian military during its invasion of Ukraine, for instance, are not new; logistical issues, maintenance and support, sustenance, maintaining surprise, and achieving a unified command are all everlasting military challenges. However, new threats posed by drones, loitering munitions, satellite imagery, cyber, and many other new technologies have made it significantly more difficult to successfully execute warfighting functions on modern battlefields than on battlefields of the past.

**Figure 2: Representation of 4Cs and 4Rs Propounded by CAS**



Source: Author's Creation

The IAF Air Chief has articulated the innovative 4Rs “Reimagine, Reinvent, Rededicate, and Retrain” as a means of mitigating the challenging 4Cs. The prolonged Russo-Ukraine conflict has given a new datum and dimension to urban warfare through conventional means. While Russian leaders have been found on the wrong side of all aspects of Operational Art and not resorting to meaningful planning and execution of 4Rs, the Ukrainians have shown enormous 4R strategy in all their counter-offensives, resulting in the recapture of most of their lost territory one by one. Learning from this conflict, the Indian Armed Forces may also find it worth tweaking and tuning its operating doctrines, planning and executing military warfare through the 4Rs.

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

**Keywords:** DCDC 2010, NATO 5Cs, Russia-Ukraine Conflict

## Notes:

<sup>1</sup> “Future Operating Environment post 2035 – Implications for Land Forces” Italian Army Headquarters General Plans Department Plans Office 2019. <https://www.esercito.difesa.it/comunicazione/Le-5-Sfide/Documents/FOE-INGLESE191205.pdf>. Accessed on September 18, 2022

<sup>2</sup> Global Strategic Trends is a comprehensive view of the future produced by a research team at the Development, Concepts and Doctrine Centre (DCDC). This edition of Global Strategic Trends is benchmarked at 12 January 2010. Accessed on September 17, 2022

<sup>3</sup> “Ukraine: More than 14,000 casualties to date but actual numbers are likely considerably higher” UN Human Rights, September 9, 2022, <https://news.un.org/en/story/2022/09/1126391> Accessed on September 19, 2022

<sup>4</sup> Simon Moody, “Urban Operations in the Future Operating Environment” Defence Studies Department, King's College London. <https://defenceindepth.co/2016/03/16/urban-operations-in-the-future-operating-environment/> Accessed on September 19, 2022.

<sup>5</sup> Winston S Williams and Christopher M. Ford (eds), Complex Battlespaces: The Law of Armed Conflict and the Dynamics of Modern Warfare (New York, 2019), Oxford Academic, December 2018, <https://doi.org/10.1093/oso/9780190915360.001.0001> Accessed on September 17, 2022.