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Prospects of Drone Warfare in South Asia



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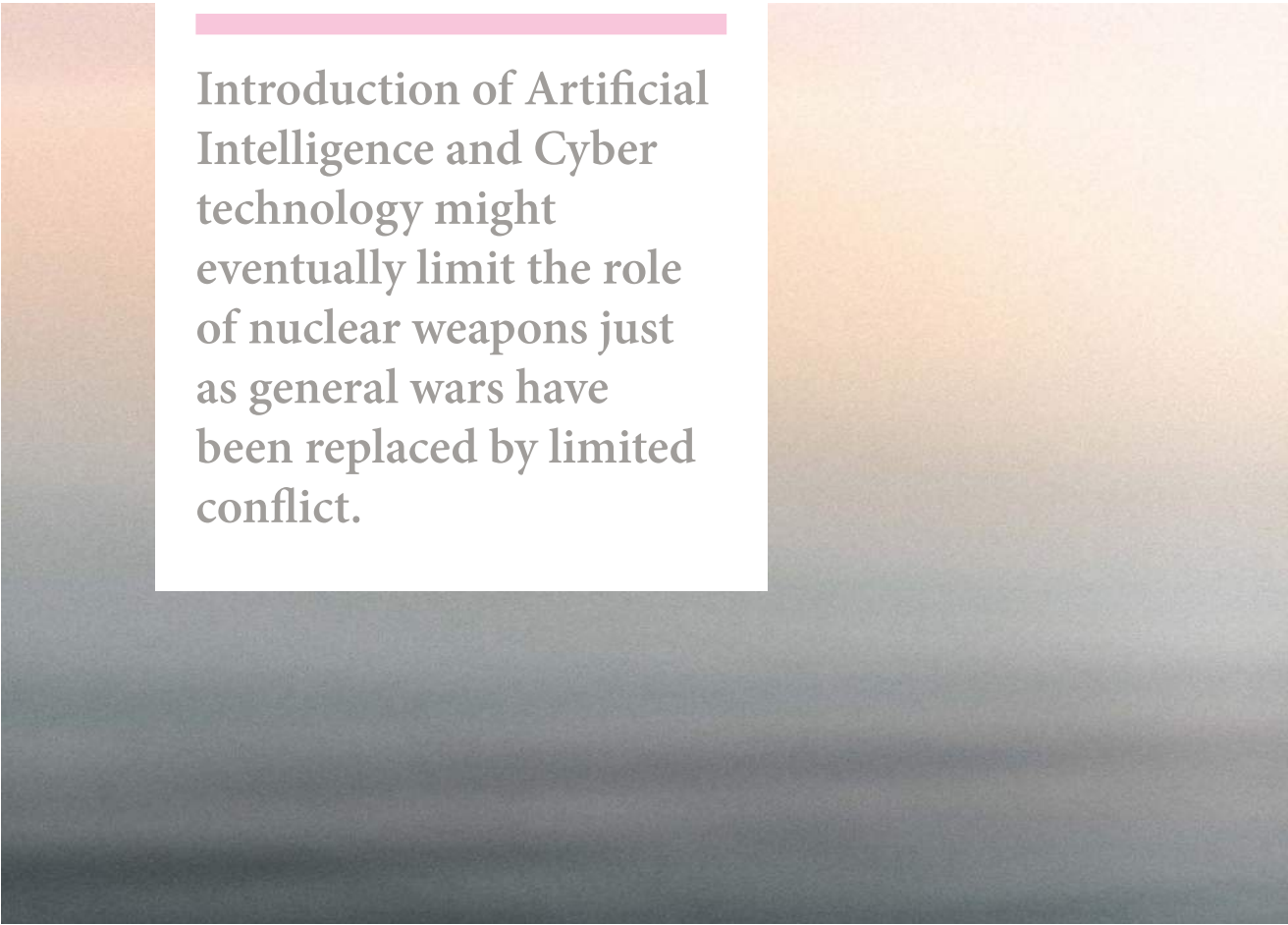
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Prospects of Drone Warfare in South Asia

Contemporarily, contours of warfare have been indisputably revolutionized because of the advent of advanced technologies and their enhanced incorporation in the military domain. This technological superiority and subsequent doctrinal shifts have affected the conduct of war and traditional strategies. The introduction of Artificial Intelligence and Cyber technology might eventually limit the role of nuclear weapons, just as general wars have been replaced by limited conflict. Because of the emergence of such technologies, conventional battlegrounds have been replaced by virtual combat zones. Ergo, it would be apposite to infer that the new form of warfare is an amalgamation of technology and traditional means of warfare.

The South Asian security architecture has always faced instability because of the hegemonic ambitions of India and the ever-increasing rivalry between India and Pakistan. The history of the region is riddled with wars, stand-offs, intra-state insurgencies, ethnic discord, and various border skirmishes. This is why the region has been declared a nuclear flashpoint. Likewise, the US-Indo strategic partnership, presence of non-state actors, Russian interests, and China's rise are also affecting security and stability of the region. That drone technology is part of the set of technologies that are likely to change the dynamics of warfare is reason enough to evaluate the prospects and implications of drone warfare in South Asia.

The advent of drone technology is set to transform the future of wars and warfare. It could become an irrevocable aspect of kinetic military action, by providing low-cost tactical air combat options along with precision-guided munitions. The recent Nagorno Karabakh conflict between Azerbaijan and Armenia has become an epic example of drone warfare where comparatively low-cost drones transformed the conduct of war, which was traditionally dominated by conventional air power and ground forces. Kamikaze drones or the loitering munitions used by Azerbaijan thoroughly exposed the defenselessness of Armenian ground forces, tanks, artillery, and air defense systems. Furthermore, the conflict exposed susceptibility of surface to air missiles, sophisticated weapons systems, radars, and tanks, to a drone attack. India and Pakistan, both key players of South Asia, are keen to adopt drone technology in their



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military doctrines since military drones have proven to work expediently.

According to a robotics expert, owing to drone technology, norms of warfare have fundamentally changed. Drones are seen as an integral facet of future warfare because of their potential to reduce risk to soldiers and a lesser possibility of slip-ups. What is more, with the rapid technological evolution and upgradation, drones will assist if not replace humans in war because of their precision, efficiency, and infallibility. Also, the role of drones in limited conflicts like the ones between India and Pakistan is extremely important as it might reduce the risk of a full-scale nuclear war. In such a scenario, if it stays undetected, a drone can slip across the borders to loiter and gather intelligence 24/7, identify targets, and ascertain the most suitable time to eliminate the targets.

Experts see drones as a weapon of choice in future battles. In future conflicts between India and Pakistan, drones can be utilized as either wingmen to fighter aircraft in air warfare, or can launch a synchronized attack/activity in the form of a drone swarm. Drones as wingmen are designed to assist human pilots in the form of a team and heavily rely on Artificial Intelligence. Likewise, completely autonomous combat drones in a formation of swarms, can be the future weapons of choice. India recently displayed its drone swarm in a parade.

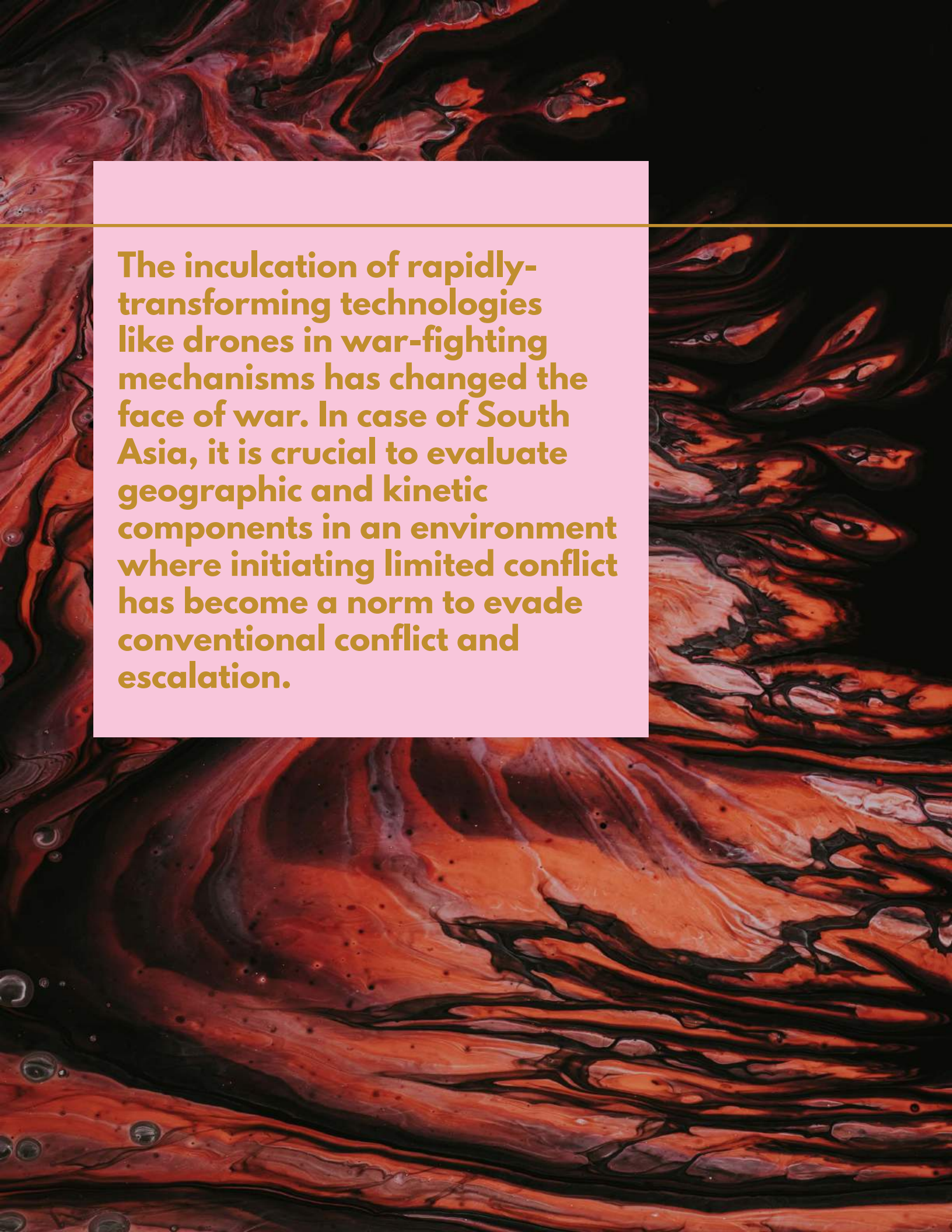
Thus far, three categories of drones (unmanned aerial vehicles/UAVs) are available to world militaries:

- HALE (high-altitude long-endurance drone)
- MALE (medium-altitude long-endurance drone)
- LALE (low-altitude long-endurance drone)

Primarily, drones are of two types: strategic drones and operational drones or unmanned combat aerial vehicle (UCAV). The chief purpose of strategic drones is short/long-range operations for intelligence, surveillance and reconnaissance (ISR) of hostile terrain whereas operational drones are used for combat plus reconnaissance purposes. The operational drones can be assigned an active role at the theatre level of a conflict. For example, Wing Loong or Predator drone UCAVs possess the ability to hit any target wielding precision guided munitions. Aside from that, being low cost, drones are a force-multiplier and augment the efficacy of combat units along with being the best option for extremely risky assignments. Nevertheless, the combat role of drones will be ascertained by technical limits and enhancements in competing technologies, like the air defense systems.

Pakistan's drone arsenal consists of the indigenous Burraq, a combat MALE category drone, recently acquired Wing Loong, and CH-4 drones. Moreover, Pakistan has a number of strategic drones for ISR purpose, like Shahpar, Falco, and SATUMA. Au contraire, India recently-inducted 75 indigenous drones that can be used during combat in swarm formation. Besides that, India has Harpy, Heron, and the indigenous Rustom. Further, it intends to buy MQ-9B drones from the U.S. India also plans to arm Heron surveillance drones already in service. Regardless, drones not made for combat cannot be converted because of aerodynamics as the whole model needs to be changed for combat upgradation, which is not economically feasible.

The inculcation of rapidly-transforming technologies like drones in war-fighting mechanisms has changed the face of war. In case of South Asia, it is crucial to evaluate geographic and kinetic components in an environment where initiating limited conflict has become a norm to evade conventional conflict and escalation. The recent successful use of drones by Azerbaijan has proven the potency as well as the expediency of a synchronized drone attack. The strategic environment of South Asia is dominated by Indian hostility and, more recently, by its penchant for surgical strikes. Consequently, Pakistan needs to develop or enhance its drone technology to gain military supremacy in case of either any misadventure by India or neutralizing its military might, may it be nuclear weapons or missile defense system. As India might endeavor to undertake subversive acts by either using airpower or drones in form of a swarm, in future conflicts.



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Pakistan and India have been maintaining their nuclear arsenals to deter each other from waging a war. Nuclear deterrence is effective against large-scale conventional as well as nuclear war. Therefore, it is noteworthy that, nuclear capabilities cannot deter all kinds and types of kinetic conflicts. Resultantly, both countries need to have a technology that can give them a military edge over each other so as to navigate structural limitations to the use of force. Against such a backdrop, it is imperative to have a capability which is intelligent, precise, and reliable, making unmanned aerial weapons in the form of drones with precision guided long-range conventional missile, the need of the hour.

Moreover, in a region where there is disparity between the militaries of the two key players, an upgraded military can effortlessly overcome the opponent via employing drones which are economical as compared to tradition means of air combat. If a drone, even if it is a surveillance drone, is neutralized by using air-to-air missiles, it gives the opponent a low-cost way to deplete the reserves of its adversary. However, foreseeably, the militaries around the world will eventually master the drone swarm technology, which will irretrievably increase the lethality in warfare along with putting a strain on the air defense budgets of the states. In case of South Asia, India and Pakistan both are developing countries with already strained budgets and struggling economies. Thus, the assimilation of drone technology, even though it is cheaper than conventional fighter aircraft, will further burden the economy while precipitating an arms race, an eventuality that Pakistan has tried to avoid.

Nevertheless, presently, there is a limited possibility of drone engagement in conventional conflict unless stealth or kamikaze drones are used. And both India and Pakistan lack stealth technology. Besides, it is argued that a drone predominantly functions in a supportive role during active missions and like every weapon system, drones have tactical and technical limitations, and negative ramifications can stem from such limitations. Spoofing, usage of electro-magnetic technology, and detection through air defense systems are the main threats that can sabotage the successful use of drones as the main weapon in a conflict. India and Pakistan both need to upgrade their drone arsenals and anti-drone technology, if they intend to use drones as a weapon of choice.

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