

Disconnected Warfare: How Drones Dominate Landscapes and Challenge Ethical Boundaries

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Remotely piloted aircraft (RPAs), known as drones, have driven a significant shift in modern military tactics and strategies. Drones have not only transformed the tools of war but also the ethical and legal frameworks within which warfare is conducted. RPAs in all forms of sophistication are increasing on the battlefield and used by actors of differing material capabilities. This technology has greatly enhanced the surveillance and offensive capabilities of modern militaries by enabling levels of distance and precision for long periods of time that could not previously be achieved by conventionally manned aircraft or missiles. Thus, this essay aims to explore the impact of RPAs on modern military operations, delving into their historical evolution, strategic significance, ethical considerations, and changing roles in military engagements. It also aims to highlight broader implications of RPA use on civilian populations and the ramifications of this advanced weaponry on populations during prolonged military operations.

RPAs have evolved from a lineage of unmanned aerial technology that can be traced back to the concept of unmanned balloons used by European armies in the 19th century.¹ The emergence of modern RPAs came later in the 20th century during the Vietnam War, with the United States deploying the use of unmanned aerial vehicles (UAVs) in a reconnaissance role.² The Vietnam War saw the result of an unprecedented, advanced drone surveillance program, laying the groundwork for the technological systems used in contemporary drone warfare. Therefore, the advancement of drone technology was significantly influenced by the challenges faced during the war. Hence, the advanced aerial defence systems of North Vietnam, coupled with the challenges posed by monsoon conditions, necessitated that pilots operate at increasingly higher altitudes. As a solution, the US military launched the Lightning Bug unmanned aircraft from a Lockheed DC130 Hercules airplane which flew preprogrammed routes or were piloted by Airborne Remote-Control Officers on board the Hercules. After performing their

surveillance mission, the Lightning Bugs deployed their parachutes, waiting to be extracted by helicopters under the guidance of Drone Recovery Officers. Utilizing their rapid speed and compact dimensions, they managed to evade the robust and efficient defensive measures of North Vietnam.³

After the war, there was little development in drone technology in the United States but was revived in the 1990s during the Balkan conflicts. Under the codename LOFTY VIEW, the CIA operated the GNAT-750 drone in secrecy over Bosnia. The GNAT-750 was later enhanced with a satellite data link and evolved into the Predator drone, now widely recognized in association with contemporary counter-terrorism efforts, otherwise known as the "War on Terror." During Operation Allied Force, the Predator played a crucial role in delivering target intelligence for NATO and U.S. aerial strikes in Kosovo. In 2001, operators successfully equipped the Predator with an anti-tank Hellfire missile mounted under its wings, turning it into a formidable weapon of war.⁴

It must be stressed that the US is not the only state that owns and uses RPAs. As of 2005, approximately forty countries had drone capabilities. This number increased to seventy-six by 2012. As of the time of the referenced sources in 2014, it is believed that over ninety countries possess remotely piloted aircraft, with at least sixty-three of these countries engaged in their manufacture. This includes a diverse range of nations from Syria to Pakistan, Iran to North Korea, and every NATO member. Furthermore, the use of drones extends beyond nation-states; non-state actors such as Hezbollah have also utilized this technology. Hezbollah has notably used Iranian-built reconnaissance drones to enter Israeli airspace and has demonstrated the capability to conduct complex attack operations in Syria.⁵

Remotely piloted aircrafts offer a significant advantage to surface forces in the field by providing them with superior reconnaissance capabilities. Despite their slow travel speeds, typically ranging from one to two hundred

knots, RPAs effectively compensate by enhancing situational awareness. By slowing down at high altitudes, pilots have more time to analyse targets and calculate next moves; this capability poses a considerable risk for adversaries, making it dangerous for them to remain exposed outdoors or in areas like forests and buildings. Additionally, armed RPAs, or the strategic pairing of manned fighter jets with RPAs equipped with targeting pods, successfully execute precision strikes against key enemy leaders and small insurgent groups. RPAs are particularly well-suited for sensitive political missions, such as those conducted by the CIA targeting al-Qaeda militants in countries like Pakistan and Yemen.⁶ Vietnam and the beginning of the Balkans conflict demonstrate that prior to RPAs, modern warfare heavily relied on manned aircraft for reconnaissance, surveillance, and strikes. Not only did this put pilots at risk, but it also limited the duration and scope of missions due to human endurance and safety concerns. Satellites and manned reconnaissance flights provided valuable information, but they lacked the immediacy and continuous surveillance capabilities of drones.

RPAs are particularly effective in missions targeting enemy leadership due to their real-time streaming video and highly accurate sensors. These capabilities allow for the precise location, tracking, and, upon confirmation of identity, the elimination of specific individuals. The current trend of missions targeting small groups or even single individuals with precision-guided munitions (PGMs) from remote distances highlights the remarkable level of precision and specificity that characterizes what is conceived as modern warfare.⁷

Although the technology is highly accurate, there is legitimate concern regarding the accuracy of data that tracks collateral damage in the context of US operations. Boyle points out that information disclosing true numbers of civilians killed is challenging to locate because of government secrecy and loose distinctions between "militant" and "civilian." Crucially, since many strikes are conducted in ungoverned areas where there is limited ability for central governments to properly track casualties. Many incidents of collateral damage, such as attacks on funerals and mosques, are the result of weakening of standards by American chain of command.⁸ Importantly, accurate technology, they remain susceptible to human miscalculation and systemic negligence.

Questions of legality and ethics remain attached to the evolution of RPAs, as drone warfare involves the direct targeting and securing of the atmosphere. As highlighted by Feigenbaum and Kanngieser in their 2015 work, the intensification of military control into the airspace that envelops daily life creates what they term atmospheres of "terror." The persistent presence of drones

in the sky, sometimes lasting days, months, or even years, instils a pervasive sense of fear in the area below, akin to a lingering, ominous mist. This sentiment was echoed by a shopkeeper from Pakistan's tribal regions, an area often subjected to CIA drone strikes, who noted the profound psychological impact on the community, including children and women. The constant presence of drones in the sky forces the promise of death into the psyche of the local population.⁹

To approach the use of RPAs through an ethical lens indicates cause for concern. Entire civilian populations are weary of an enemy they cannot see or touch, since the high-altitude capabilities of RPAs are nearly impossible to defend against under air dominance. The evolution of RPAs is a more significant "military revolution," a concept that illustrates how advancements in military technology can have far-reaching impacts, influencing not just military strategy but also urban planning and social structures. Which speaks to the core of RPAs transforming the structures of society by influencing the behaviour of civilians who never know if they are being observed from the sky.¹⁰

In the era of the 'drone,' the concept of state territory becomes neutralized, transforming into a homogeneous surveillance field helpless to sudden and severe acts of violence. RPAs symbolize the emergence of a perceptually omnipresent force with immense capabilities. This shift signifies a new era where surveillance can instantaneously transition into an instrument of attack, capable of striking with remarkable speed. Against an under-mechanized enemy, the dual ability to observe and attack from the air without significant limitations emphasizes an evolution in modern warfare. In a sense, an RPA represents an ethereal panopticon that brings with it unparalleled swiftness and brutality.¹¹ It must also be remembered though, the described supremacy of RPAs is only possible through absolute air dominance and has yet to be tested against more formidable forces that have significant air defence capabilities.

The wrath of RPAs does not only impact their targets but can have serious effects on their operators. Some critics claim that RPAs have turned war into a video game, because it makes killing remote and distant. However, the advanced surveillance tech of modern RPAs unlocks intimate access with the operator and their targets. For hours, days, and even weeks, operators can observe a target in close, high-definition video. This is described as a militarized regime of *hypervisibility*, which is "a kind of obscenity of accuracy that abolishes the distinctions between 'permission and prohibition, presence, and absence.'" ¹² This kind of intimacy goes beyond the gamification of war. There are notable differences between video games and RPA video feeds.

First, video games are discontinuous as players can restart levels, reset situations, and pause the game. In contrast, immersion in RPA video feeds is continuously maintained. There are varying degrees of involvement during a UAV mission and crew shifts may occur, but the engagement with live video feeds remains unbroken. Second, video games often present a simplified, stylized landscape populated exclusively by caricatured "insurgents" or "terrorists." Video feeds from RPAs expose a far more complex and populated environment where distinguishing between civilians and combatants is a deeply challenging task. This creates an environment of intimacy where there is no detachment from targets, which makes the reports of drone crews suffering from PTSD due to prolonged exposure to high-resolution images of real-time killing and the after-action inventory of body parts highly alarming.¹³

The integration of Remotely Piloted Aircrafts into modern warfare has revolutionized military operations, marking a significant evolution in both strategy and technology. These advancements, however, come with complex ethical and legal ramifications. The historical journey of RPAs, from their early use in the Vietnam War to their current role in various global conflicts, demonstrates

their increasing sophistication and strategic value. While RPAs offer unparalleled advantages in terms of precision, surveillance, and reducing risk to personnel, their impact extends beyond the battlefield, affecting civilian populations and raising critical and ethical questions about the nature of this new kind of warfare. The modern battlefield is complex in its landscape. Very rarely do battle scenarios involve precise segregation of civilian and combatant targets. Hence, one of the main purposes of the widespread use of sophisticated offensive RPA technology by highly industrialized militaries, is to reduce the likelihood of "collateral damage" through enhanced target discrimination. However, as previously discussed, this is hardly the case. One must examine the framing of the use of RPA technology by predominately Western nations imposed on peripheral states. Contrary to the narrative of governments, the almost invisible dominance of the "eye in the sky" does not only affect enemy combatants; civilian populations are especially vulnerable to unexpected strikes. RPAs are not mere tools to be used for surgical strikes on enemy combatants; rather they have become vehicles of domination used to completely capture the sovereignty of weaker states by more technologically advanced militaries.

Notes

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