**Enhanced Ethics for Military Users of Armed Drones**

Christian Enemark

**Biography**

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There is a growing need to restrain the use of armed, uninhabited aerial vehicles (commonly known as ‘drones’). Around the world, more governments are deploying such aircraft, but uncertainty persists about what actions are morally justified. Beyond merely adhering to legal rules, responsible drone users should follow five principles to further reduce the risk of injustices.

Armed drones are reusable and recoverable aircraft that carry one or more weapons, that do not carry a human operator, and that incorporate onboard sensor and communication technologies. Ethical controversy has surrounded the use of such aircraft since the start of the American-led War on Terror in late 2001. Long-range drone strikes have sometimes been condemned as [assassinations](https://www.bloomsbury.com/uk/we-kill-because-we-can-9781783605477), and drone warfare has also been criticised for making the killing of people [excessively easy](https://direct.mit.edu/daed/article/145/4/12/27115/Just-amp-Unjust-Targeted-Killing-amp-Drone-Warfare).

Some governments (for example, the [United States](https://www.bbc.co.uk/news/world-asia-62387167) and the [United Kingdom](https://www.bbc.co.uk/news/uk-wales-34176790)) have used drones to target suspected terrorists located in distant foreign territories, and drones of various kinds have featured heavily in the ongoing [Russo-Ukrainian War](https://www.washingtonpost.com/world/2022/12/02/drones-russia-ukraine-air-war). As of 2023, an [estimated](https://dronewars.net/who-has-armed-drones) 19 states have conducted drone-based airstrikes, six states possess armed drone development programmes, and 29 states have imported armed drones. Moreover, in the future more drone system functions might become performable by [artificial intelligence](https://www.sciencedirect.com/science/article/pii/S0016328721001579) (AI) technologies.

Although armed drones are not inherently evil weapon systems, moral concerns arise from how these aircraft are sometimes used. The practice of drone warfare is morally concerning in the way it can exacerbate broader problems. These include: unjust decisions to resort to violence in international affairs; the use of indiscriminate or disproportionate methods of warfighting; the incurring of moral injury from the experience of killing another person; and inadequate human control over the operation of weapon systems.

A drone-using state’s commitment to follow international laws of war (for example, [the law against targeting civilians](https://ihl-databases.icrc.org/en/ihl-treaties/api-1977/article-51)) is only a minimal commitment to ‘do the right thing’. From a moral perspective, it would be better to go beyond that. To address longstanding public concerns fully, users of armed drones should hold themselves to a higher standard: to exercise a greater degree of restraint with respect to what is presently required by law. Accordingly, in the military sphere, the responsible use of drones should involve adherence to five extra-legal principles.

1) An armed drone should only be deployed in combination with ground-based military personnel, inhabited maritime vessels, and/or inhabited aircraft. This principle, called Combined Arms, aims at restricting countries in possession of armed drones from resorting to violence too frequently. Large, long-range drones can be deployed in foreign territories as an alternative to deploying military personnel and thereby [exposing them to physical risk](https://www.tandfonline.com/doi/full/10.1080/15027570.2010.536403). In this context, a state intent on using drones exclusively might be less reluctant to act violently and more tempted toward unjustified actions. Therefore, adherence to the Combined Arms principle would imply that the use of armed drones in warfare may only occur in combination with the use of other, non-remotely controlled, combat assets.

2) An armed drone should only be used to protect a person or persons facing an immediate threat of serious harm. This so-called Urgent Other-Defence principle reinforces the preference of many drone operators for protective modes of drone warfare. A moral distinction can be drawn between, on the one hand, the use of armed drones to provide timely support to combat personnel or civilians who are under attack and, on the other hand, the use of armed drones to attack individual enemies who are located far away from any ongoing fighting. Drone operators often feel pride in the protective mode of drone warfare, because it is [more easily justified](https://www.raf.mod.uk/what-we-do/centre-for-air-and-space-power-studies/library/apr-vol15-iss1-1-pdf) by reference to an immediate life-saving imperative. The second kind of drone warfare is not as easily justifiable, considering that a person who is not harming or about to harm anybody is harder to characterise as a threat. Adherence to the Urgent Other-Defence principle would involve rejecting [an expansive notion of ‘imminence’](https://slate.com/news-and-politics/2013/02/drones-law-and-imminent-attacks-how-the-u-s-redefines-legal-terms-to-justify-targeted-killing.html) and avoiding the use of drones against individuals who are assessed as potentially posing a threat at an unspecified future time.

3) Once the use of an armed drone against a specific target is authorised, an operator of the drone may reasonably refuse to participate in employing the drone as a weapon. This Operator Discretion principle addresses the concern that drone operators might be [morally injured](https://www.tandfonline.com/doi/full/10.1080/23337486.2017.1384979) by their experience of killing. A distinguishing feature of many armed drones is that they enable a person to be killed from afar all while being closely observed. These camera-equipped weapon systems have an unprecedented capacity to reveal the humanity of a distant human target. Such revelation can undermine a drone operator’s moral willingness to kill another person. At the same time, drone operators might find themselves under pressure to proceed with killing if an unfolding mission is being watched by colleagues and commanders. Adherence to the Operator Discretion principle would involve empowering drone operators to safeguard their own moral wellbeing. Refusals to kill would be formally allowed when an individual operator reasonably believes that a particular killing would be morally wrong under the circumstances.

4) All critical functions within an armed drone system should be under [meaningful human control](https://www.article36.org/wp-content/uploads/2016/04/MHC-2016-FINAL.pdf). This principle of Human Agency addresses the concern that the use of an armed drone might generate an unjust outcome for which nobody could fairly be held responsible. This is a possibility if the operation of a drone system’s critical functions (selecting and engaging targets) is performed by an AI technology. Arguably, AI is inherently incapable of making moral decisions and bearing moral responsibility. It cannot replicate a human’s abilities to exercise judgment based on lived experience and moral values. Therefore, the degree of human control over the operation of an armed drone needs to be always sufficient to preserve the faculty of responsible use. Adherence to the Human Agency principle implies that a human: (a) can exercise a context-appropriate degree of control over a drone system’s critical functions; (b) is indispensable as a part of system design to the technical operation of those functions; (c) can interact with and intervene upon the system’s AI in a timely fashion; (d) does not place excessive trust in AI; and (e) can fairly be held accountable for any wrongdoing.

5) To the greatest extent possible, while preserving operational security, there should be public disclosure of where, why, and how armed drones are used, and of the effects generated by such use. This principle of High Transparency addresses the potential problem that the occurrence, purpose and manner of a state’s drone use might not be sufficiently scrutinised. Commitment to transparency is especially important when it comes to armed drones that have a [high capacity for covert use](https://www.justsecurity.org/4166/secretary-general-report-transparency-drones). For example, if uses of these aircraft are hard to attribute, there is a risk that states will use them for improper reasons, in unjust ways, and with impunity. The High Transparency principle would require public disclosure of the legal and policy frameworks that generally guide a state’s drone use. Operation-specific information would be [withheld](https://dronewars.net/2023/10/24/mod-abruptly-ends-responding-to-foi-requests-on-uk-drone-operations) only to preserve an armed drone’s immediate capacity to be used effectively.

All five principles are apt to be discussed, debated and voluntarily adhered to by individuals and non-government organisations as well as by states. Together, these principles are intended to inform policymaking and influence behaviour so that the use of armed drones generates fewer injustices in the future.