

# INTERNATIONAL JOURNAL FOR LEGAL RESEARCH AND ANALYSIS



Open Access, Refereed Journal Multi Disciplinary  
Peer Reviewed Edition :

[www.ijlra.com](http://www.ijlra.com)

## **DISCLAIMER**

No part of this publication may be reproduced or copied in any form by any means without prior written permission of Managing Editor of IJLRA. The views expressed in this publication are purely personal opinions of the authors and do not reflect the views of the Editorial Team of IJLRA.

Though every effort has been made to ensure that the information in Volume 2 Issue 7 is accurate and appropriately cited/referenced, neither the Editorial Board nor IJLRA shall be held liable or responsible in any manner whatsoever for any consequences for any action taken by anyone on the basis of information in the Journal.

Copyright © International Journal for Legal Research & Analysis

IJLRA

## **EDITORIAL TEAM**

### **EDITORS**

#### **Megha Middha**



*Megha Middha, Assistant Professor of Law in Mody University of Science and Technology, Lakshmangarh, Sikar*

*Megha Middha, is working as an Assistant Professor of Law in Mody University of Science and Technology, Lakshmangarh, Sikar (Rajasthan). She has an experience in the teaching of almost 3 years. She has completed her graduation in BBA LL.B (H) from Amity University, Rajasthan (Gold Medalist) and did her post-graduation (LL.M in Business Laws) from NLSIU, Bengaluru. Currently, she is enrolled in a Ph.D. course in the Department of Law at Mohanlal Sukhadia University, Udaipur (Rajasthan). She wishes to excel in academics and research and contribute as much as she can to society. Through her interactions with the students, she tries to inculcate a sense of deep thinking power in her students and enlighten and guide them to the fact how they can bring a change to the society*

#### **Dr. Samrat Datta**

*Dr. Samrat Datta Seedling School of Law and Governance, Jaipur National University, Jaipur. Dr. Samrat Datta is currently associated with Seedling School of Law and Governance, Jaipur National University, Jaipur. Dr. Datta has completed his graduation i.e., B.A.LL.B. from Law College Dehradun, Hemvati Nandan Bahuguna Garhwal University, Srinagar, Uttarakhand. He is an alumnus of KIIT University, Bhubaneswar where he pursued his post-graduation (LL.M.) in Criminal Law and subsequently completed his Ph.D. in Police Law and Information Technology from the Pacific Academy of Higher Education and Research University, Udaipur in 2020. His area of interest and research is Criminal and Police Law. Dr. Datta has a teaching experience of 7 years in various law schools across North India and has held administrative positions like Academic Coordinator, Centre Superintendent for Examinations, Deputy Controller of Examinations, Member of the Proctorial Board*



## **Dr. Namita Jain**



*Head & Associate Professor*

*School of Law, JECRC University, Jaipur Ph.D. (Commercial Law) LL.M., UGC -NET Post Graduation Diploma in Taxation law and Practice, Bachelor of Commerce.*

*Teaching Experience: 12 years, AWARDS AND RECOGNITION of Dr. Namita Jain are - ICF Global Excellence Award 2020 in the category of educationalist by I Can Foundation, India. India Women Empowerment Award in the category of "Emerging Excellence in Academics by Prime Time & Utkrisht Bharat Foundation, New Delhi.(2020). Conferred in FL Book of Top 21 Record Holders in the category of education by Fashion Lifestyle Magazine, New Delhi. (2020). Certificate of Appreciation for organizing and managing the Professional Development Training Program on IPR in Collaboration with Trade Innovations Services, Jaipur on March 14th, 2019*

## **Mrs.S.Kalpana**

*Assistant professor of Law*

*Mrs.S.Kalpana, presently Assistant professor of Law, VelTech Rangarajan Dr. Sagunthala R & D Institute of Science and Technology, Avadi. Formerly Assistant professor of Law, Vels University in the year 2019 to 2020, Worked as Guest Faculty, Chennai Dr.Ambedkar Law College, Pudupakkam. Published one book. Published 8Articles in various reputed Law Journals. Conducted 1Moot court competition and participated in nearly 80 National and International seminars and webinars conducted on various subjects of Law. Did ML in Criminal Law and Criminal Justice Administration. 10 paper presentations in various National and International seminars. Attended more than 10 FDP programs. Ph.D. in Law pursuing.*



## **Avinash Kumar**



*Avinash Kumar has completed his Ph.D. in International Investment Law from the Dept. of Law & Governance, Central University of South Bihar. His research work is on "International Investment Agreement and State's right to regulate Foreign Investment." He qualified UGC-NET and has been selected for the prestigious ICSSR Doctoral Fellowship. He is an alumnus of the Faculty of Law, University of Delhi. Formerly he has been elected as Students Union President of Law Centre-1, University of Delhi. Moreover, he completed his LL.M. from the University of Delhi (2014-16), dissertation on "Cross-border Merger & Acquisition"; LL.B. from the University of Delhi (2011-14), and B.A. (Hons.) from Maharaja Agrasen College, University of Delhi. He has also obtained P.G. Diploma in IPR from the Indian Society of International Law, New Delhi. He has qualified UGC - NET examination and has been awarded ICSSR - Doctoral Fellowship. He has published six-plus articles and presented 9 plus papers in national and international seminars/conferences. He participated in several workshops on research methodology and teaching and learning.*

## **ABOUT US**

INTERNATIONAL JOURNAL FOR LEGAL RESEARCH & ANALYSIS  
ISSN

2582-6433 is an Online Journal is Monthly, Peer Review, Academic Journal, Published online, that seeks to provide an interactive platform for the publication of Short Articles, Long Articles, Book Review, Case Comments, Research Papers, Essay in the field of Law & Multidisciplinary issue. Our aim is to upgrade the level of interaction and discourse about contemporary issues of law. We are eager to become a highly cited academic publication, through quality contributions from students, academics, professionals from the industry, the bar and the bench. INTERNATIONAL JOURNAL FOR LEGAL RESEARCH & ANALYSIS ISSN 2582-6433 welcomes contributions from all legal branches, as long as the work is original, unpublished and is in consonance with the submission guidelines.

# **DRONES AND THE LEGALITY AND** **ETHICS OF WAR**

|   |  |
|---|--|
| <p>Dr. S. Krishnan<br/>Associate Professor<br/>Seedling School of Law and Governance<br/>Jaipur National University, Jaipur</p> | <p>Ms. Anchal Shukla<br/>Contract Management - Associate<br/>at <a href="#">Lochan &amp; Co</a>, New Delhi</p> |
|---|--|

## **Abstract:**

Early in J.J. Abrams film Star Trek Into Darkness (Paramount 2013), Captain Kirk is faced with a moral dilemma. Should he follow his orders and fire a missile into enemy territory from afar to kill a known terrorist, or should he risk sending his men into foreign territory to try to capture him? This choice is no accident. It is an allegory about the morality of the drone war, and the dilemmas it poses are those we face today. As in Star Trek, we have this amazing technology that can apparently be employed with little risk to our own forces, but its improper use poses an enormous risk to our way of life. How can we be certain we have identified an appropriate target? Is it enough to simply trust high government officials? What is the right way to use such weapons? In what follows, we will consider how ethics and the just war tradition illuminate these questions in a way that clearly shows what is missing in the American administration's approach to the use of drones.

**Keywords:** Drones, Ethics, Morality, Warfare, Technology

## **Introduction**

The use of drones is a natural evolution in the science of war. On the tactical level, militaries often seek to damage their opponent's forces while presenting the least amount of risk to their own soldiers. Armed drones seem to present a means of engaging in low risk tactical engagements. Early examples of the attempted use of drones occurred in WWII during Operation Aphrodite where B-17 "Flying Fortress" bombers were outfitted with radio control systems flown towards harden Nazi targets while being controlled by pilots in an escorting

“mothership.”<sup>[i]</sup> Unfortunately, the technology wasn’t sufficiently advanced at the time to achieve any hits on target. Through the latter half of the 20th century, this technology continued to be refined but was mostly restricted to reconnaissance missions. By the mid-1990s, General Atomics developed the famed RQ-1 “Predator” drone prized for its small size, reconnaissance capabilities, and later its ability to carry AGM-114 “Hellfire” missiles and other armaments.<sup>[ii]</sup> The use of Predator and other modern drones in the Long War fulfilled the promise of conducting offensive attacks against an enemy without any risk to those piloting these systems. But while tactical objectives can now be easily achieved with drones, their ability to advance strategic objectives and secure peace is still very much in question.

The technological advancements that has allowed for the use of drones, has largely sharpened the existing ethical concerns of military conflicts. As the longer loiter times of drones have allowed for more positive identification of targets, so has the demand to ensure targets are appropriately identified. As drones have allowed for minimizing collateral damage, so has the demand for less collateral damaged has increased. In this way, many of the legal and ethical concerns surrounding drones are simply a re-examination of the classical ethical concerns of armed conflict heightened by advanced technology.

Unfortunately, the development of the current generation of armed drones corresponded with a series of terrorist attacks upon the United States. Seeking to engage in a “War On Terrorism,” the traditional concepts of warfare and the limits of the battlefield were stretched. This presents a significant challenge on how the use of drones might be restricted in the future to comply with the “spirit” of the laws of war. This paper will explore some of the ways this technology advances and challenges jus in bello and jus ad bellum.

## Definition

In this paper, the term "drone" will be used to reference unmanned vehicles. This can include unmanned vehicles that at are air, land, sea, or space based with unmanned aerial vehicles (UAV) being the most common. While many of their navigation systems and other functions may be fully automated, drones require the ability to be remotely controlled. In this way, they are not "fire and forget" systems like cruise missiles. Human intervention can change the drone's mission and control the weapon systems.

## Scope of this Paper

The ethical concerns surrounding logistical drone systems are highly similar to the ethical concerns surrounding the use of these systems within the civilian community. For example, how are these drones designed and programmed to prevent the loss of human life during their operation (i.e. how are self-driving cars prevented from running over pedestrians). Removing the requirement for an on-board human pilot within logistical systems could be argued as a vast moral improvement as it would remove the human (or “mortal”) element at direct risk within the system. Surely the world community could agree the removal of unnecessary human populations from the battlefield to be a just and noble goal. The use of drones to replace the function of pack animals and reduce the risk of non-battle injuries among overburdened soldiers again must be noted as an admirable goal.<sup>[iii]</sup> While these systems would have some minimal ethical concerns surrounding the issue of safety, they offer the avoidance of having to place military animals at risk for harm or death and thus could be argued to have reduce the amount of ethical concerns on the battlefield.

While there are drones in use or development to provide military logistical support, this paper will focus on drones with offensive weapon systems. These drones are noted for their long loiter time (aiding in positive identification of intended targets) and offensive weapon systems controlled by the human-operator(s). It is the offensive use of drones that present the most significant ethical concerns. These concerns will be further discussed in detail within this paper. This paper will not examine fully autonomous weapon systems as these systems present a host of additional ethical concerns. Fortunately, functional autonomous systems have yet to appear on the battlefield.

## Jus in Bello “Just Means”

Just war theory, like the very idea of ethics, is rooted in the concept of our common humanity. It stems from the notion that even in the most extreme situation of warfare, there are certain principles that ought to guide our conduct. Some date its origin to the Indian epic the Mahabharata, which proposes a number of rules for the conduct of war. In the West, these principles have their roots in Homer’s *Illiad*, as well as the philosophy of [Plato](#) and [Aristotle](#). In *the Republic*, 470a-b, Socrates proposes that Greeks should limit their ravages of the land for the sake of future peace. While Aristotle’s concerns are more oriented to whether a war is undertaken with just cause. Cicero treats both questions thematically in his *Republic*, written in 51BCE, but these principles became especially powerful and widely diffused after Christianity

became the official religion of the Roman Empire in 380. No longer marginalized and persecuted, Christians were suddenly wielding power and serving in the army, and this raised a new problem: under what conditions is it appropriate for Christians to resort to violence when the Bible says to turn the other cheek to those who smite you? The first formulations by Augustine and his mentor, Ambrose, were an attempt to answer this question. Although their approach to it is formulated in Cicero's terms, the Christian context in which it is articulated occasionally suggests that force might be used to coercively enforce Catholic orthodoxy, and this has caused some to mistake Just War theory for an exclusively Christian enterprise. The theory's roots in Cicero's stoic universalism, however, permitted the renaissance thinker, Hugo Grotius to purge it of this Christian bias and, phrase it in a more inclusive way, enabling him to incorporate many of its principles into international law.

Drones certainly have promise to improve jus in bello or the just means of warfare. They offer advantages in better identifying targets with longer lauder periods than onboard human-piloted systems. Using more precise weaponry there is the promise of limiting the chance of harm to non-combatants. Drones can be aided by large support staff including legal and command teams to better discern if the use of force is appropriate. Unlike the traditional weapon platforms, the authority to use weapons does not rest with the pilot or crew. With these types of advantages, it is easy to see the appeal to invest in and utilize drones. In this section, this paper will examine the promise of better target identification, limited collateral damage, and improved force discernment to determine if they became a battlefield reality.

**Target Identification.** Drones offer superior target identification because they expand the systems capability beyond the human limits in a human-piloted system. For example, a Predator B drone system can stay aloft for over 40 hours of flight time.<sup>[iv]</sup> This is done using rotating teams of remote human operators that are not under the stress of being inside the platform. A traditional piloted reconnaissance plane would have a shorter total flight time even when utilizing two pilots. These on-board pilots would of course be under additional stress caused by the aircraft and being in a combat zone and thus have degraded performance. Transmitting live-feed data back to an operations center, allows for teams of intelligence analysts to use advanced identification systems to positively distinguish targets. This level of interface with intelligence data systems and support simply could not be made possible within a human-piloted system.

But while drones do offer great advantages in time and discernment of targets, like any technology, they are not flawless. For example, in March 2011 a Royal Air Force drone engaged two trucks carrying large amounts of explosives in the Helman province of Afghanistan. Four Afghan civilians were killed and additional two were wounded in the attack as they were present in the vehicles but were not visible to the observing Reaper aircraft.<sup>[v]</sup> While drones do offer superior performance than manned weapons platform, there are still limitations to these systems. It would be foolhardy to believe drones could remove all risk of unintended consequences from the battlefield.

***Collateral Damage.*** With exception of the thermobaric variation of the Hellfire missile (AGN-114N),<sup>[vi]</sup> weapons utilized by drones generally have lower area effects than traditional conventional weapons.<sup>[vii]</sup> However, it is important to note there is practically no difference in terms of jus in bello from drones using Hellfire missiles to human-piloted systems utilizing the same munitions. The advantage of drones is they are often only capable of being armed with precision guided munitions and do not carry unguided bombs that human-piloted systems often carry.

The desire for precise application of force led to the creation of the AGM-114R9X Hellfire missile. First appearing on the battlefield in 2017, this variant of the Lockheed Martin's Hellfire missiles trades traditional explosives in favor of a kinetic warhead and multiple blades that deploy seconds before impact.<sup>[viii]</sup> This variant drastically reduces the risk of collateral damage by converting the Hellfire into more of a point-target versus area target weapon system. This missile certainly advances the spirit of jus in bello in limiting violence on the battle to the intended target.

***Force Discernment.*** The greatest promise that drones offer on the battlefield would be improved force discernment. With advantages of longer loiter times and better target identification abilities, there isn't the rush to immediately engage a target in fear of losing the opportunity due to the limits of human-piloted systems. The authority to use force is not invested in the pilot but a "kill chain" of intel analysts, legal reviewers, and military and civilian leaders. With strict protocols on use of force, this "kill chain" theoretically offers significant advantages over the use of a human-crewed system. It is unlikely one would ever find a lawyer in a bomber crew, but one or more military lawyers will be part of a drone's kill chain to help determine the legality of a strike. If a strike would be determined too risky at the moment, the strike can be delayed. The drone can

continue to monitor the situation for any changes that might make a strike possible. The movie “Eye in the Sky”<sup>[ix]</sup> presents an accurate portrayal of the kill chain and its political nature.

The drone’s ability to observe the situation to confirm the absence of civilians or observe the target until they have moved away from civilians, offers significant advantages in trying to minimize the loss of civilian life on the battlefield. This can be further advanced when the drone system works with other military forces in the area to observe the target, and if the drone engages, by doing so with a guided missile with smaller area effects than weapons typically carried on jet fighters.<sup>[x]</sup> But while drones and their related “kill chains” may offer the promise of reducing civilian casualties, there are certainly examples of when this promise did not hold true. For example, in June 2009, a Central Intelligence Agency (CIA) drone fired on a crowd at the funeral of Baitullah Mehsud. The CIA was using Mehsud’s body as bait to attract Taliban leaders. The death toll of the drone strike was 83 people with 45 said to be civilians with ten being children.<sup>[xi]</sup>

## **Jus ad Bellum “Just War”**

Drones present far more challenges with the jus ad bellum. This is especially true post September 11, 2001, when the technology was fully matured, and the United States perceived itself under significant threat of further terrorist attacks. Drone technology has highlighted the vague concepts and lack of clear definitions for terms within jus ad bellum. For example, many drone strikes are justified by targets presenting an “imminent” threat. In the wake of September 11th, the American understanding of war expanded as the United States authorized the use of force against “terrorism.” As a result, the use of armed drones extended past what would have previously considered a war zone to target individuals in other sovereign nations. As a result, the use of this technology has the possibility of triggering traditional conflicts thus expanding not reducing the possibility of hostilities. The concept of who is included in combative status has also increased to now include propagandists and recruiters. The existence of this technology seems to be justification its use in lieu of other diplomatic solutions. There are also concerns about governments using drones against their own citizens in violation of human rights. Finally, while drones have a long history of tactical victory, there is little evidence that they are an effective means of reaching strategic goals. Unfortunately, drones may be increasing the intensity of the asymmetrical warfare they were designed to stop.

## The Raise of the Killer Drone

To come to an understanding of how we arrived at the current use of armed drones, we must examine a few key events that happened just into the 21st century. While there were advances in drone technology throughout the 20th century, drones proved to have the most success in the field of reconnaissance. Drones seem to be a natural solution to reduce the risk of sending manned aircraft on reconnaissance missions. During the Viet Nam War, the U.S. Military utilized the Ryan Model 147 Remote Piloted Vehicles to great success. In the late 1980s the U.S. Military had acquired the RQ-2 Pioneer drone that served in the Persian Gulf, Somalia, Bosnia, Kosovo, and Iraq.[xii] Success with this type of reconnaissance drone led the CIA and U.S. Air Force to continue drone development with the now infamous General Atomics RQ-1 Predator drone in 1994. In 1993 there was a bombing at the World Trade Center and in October of 2000 the USS Cole was attacked with both incidents linked to al-Qaeda. In 2000, the U.S. Air Force investigated the possibility of arming the Predator drone with Hellfire missiles originally designed for attack helicopters. The first armed test was successfully conducted in February 2001 with the CIA pushing for rapid development seeing an armed Predator as a powerful tool against al-Qaeda operating in Afghanistan. As reported by Richard Whittle, “In 2001, the Predator became the first weapon in history whose operators could use it to stalk and kill a single individual on the other side of the planet much the way a sniper does, and with total invulnerability.”[xiii]

On 11 September 2001, the United States suffered a massive terrorist attack with the destruction of the World Trade Center. This single incident reframed the United States view of the risk of terrorist organizations around the globe. On 18 September 2001, the US Congress passed the Authorization of Use of Military Force (AUMF) that gave broad latitude to respond to al-Qaeda and supporting terrorist organizations. This law was used to justify U.S. Military action in Afghanistan, Philippines, Georgia, Yemen, Djibouti, Kenya, Ethiopia, Eritrea, Iraq and Somalia[xiv] with armed drone strikes occurring in many of these countries. On 4 February 2002, the CIA conducted the first armed strike from a Predator drone in Afghanistan against a target they believe was Osama Bin Laden.[xv] After arming the Predator drone, the US Air Force changed the designation of the Predator from the RQ-1 to the MQ-1, replacing the “R” for reconnaissance with the “M” denoting multi-role.

In the last two decades, a handful of countries have operated armed drones. While there is nothing inherent about this technology that would make it more “unethical” than other weapon systems,

how this technology has been used and how it has influenced the perception of war have certainly heightened the ethical concerns surrounding warfare. As other countries gain this type of technology, there is an increasing risk that drones may lead to an escalation of military conflicts around the globe.

***Problem with Poorly Defined Concepts.*** Jus ad bellum allows a country to act out of self-defense. This principle would allow for pre-emptive attacks on foreign actors or nations if there was an “immediate” threat. Unfortunately, what justifies an immediate threat verse non-immediate threats are unclear. With U.S. drone strikes occurring in remote areas such as Yemen that are significantly geographically separated from U.S. interests, one may be led to ask if an immediate threat was present. This justification was recently used in the United States conducting a targeted killing of Iranian Major General Qasem Soleimani, 2 January 2020. However, the intelligence used to determine this imminent threat has not been released to the public causing international doubt of the justification for this force.

***Expansion of the Zones of Conflict and the State of War.*** Unlike traditional conflicts that have fighting restricted to geographic locations, the rise of armed drones has extended the battlefields. In theory, one country could use a drone to conduct a targeted killing against someone their deemed as an “immediate threat” anywhere in the globe. This could include the use of military force without the knowledge and pre-approval of the host nation to attempt to resolve the problem. Likewise, this might include employing military force (armed drone) against another nation when a state of war hasn’t been declared. This occurred with the targeted killing of Soleimani where the U.S. acted against Iran within the boundaries of Iraq. While the U.S. had been conducting combat missions in this country, it had been doing so against Islamic State in Iraq and Syria (ISIS). This rapid transition to attack a military leader of another country presents significant concerns.

The concept of combatants has increased with the expansion of the battlefield. Unlike previous conflicts where those in supporting roles like recruiting and propaganda were largely protected from harm, with the use of drones these individuals can be targeted and eliminated. In U.S. Operations in Afghanistan, local drug lords were targeted for providing financing for the Taliban while not taking an active role in the hostilities. This makes some use for drones essentially police work. Drones have been used when it would be too dangerous for traditional police forces and politically unacceptable for the use a police drones to kill in this manner.[xvi] Thus we see targeted

killing run past the scope of the accepted laws of war.

***Proportionality and the Counting of the Dead.*** The law of war demands proportionality in the risk to civilians when engaging military targets. With the targets of drones often being single individuals, it becomes difficult to determine what level of civilian casualties are truly acceptable. The Obama administration skirted this issue by assuming that any man of military age surrounding the intended target was also a combative unless intelligence had evidence otherwise.<sup>[xvii]</sup> But these men were not the targets of the attack and the intelligence community had no knowledge of what they had done or intended to do.<sup>[xviii]</sup>

***Secret Kill Lists.*** The very existence of secret kill lists should be ethically concerning. If a nation's military leadership was identifying targets of military value, it might be said to be a relatively low concern of political bias. However, politicians are often involved in the creation and approval of these "kill or capture" lists, with capture seldom used. This political involvement blurs the lines between drones being used for targeted killing and assassination. In the words of Casey-Maslen, "Too often, targeted killings by states, whether using drones or other means, look rather like crossing names off a Mafia hit list."<sup>[xix]</sup> With governments wanting to protect their intelligence sources, they are reluctant to release the information that could demonstrate the strike was truly a justified targeted killing. This seems to be the case with the recent targeted killing of Major General Soleimani. With the lack of transparency, the use of armed drones may increase the risk of strategic failure due to the enemy's use of information warfare and propaganda in the wake of tactical victories.

***Drives Asymmetric Warfare.*** While the tactical victories of drones are beyond question, there is significant questions concerning their strategic value. The terrorist organizations that have their leadership routinely killed by drones seem to have little problems finding replacements. With counterattacks against drones providing little damage to military that is operating it, terrorist may be far more likely to engage in suicide bombing and attacks against civilians due to its greater strategic impact. In this way, drones may present such a "harden target" that it is driving enemy forces to engage in exactly the types of terrorist attacks drones were intended to prevent.<sup>[xx]</sup>

## Conclusion

The world continues to see a growth in the use of armed drones. With multiple countries actively seeking to acquire and improve existing military technology and commercial drones becoming easier to weaponize, this will be a weapon system that continues to challenge our understanding and enforcement of the laws of war. While drone technology certainly offers advantages to engage in warfare in the spirit of *jus in bello*, the current application of drones and the changing concepts of what is and isn't warfare dramatically threatens the spirit of *jus ad bellum*.

Future generations will be challenged to restrict this technology to lawful use of on a restricted battlefield and avoid the temptation to use this technology in a way that may increase the likelihood of major conflicts. With how the "war on terrorism" was fought over the last two decades, returning to state of greater hesitation to utilize military force over other diplomatic solutions presents a significant challenge. Worldwide prohibition on this technology seems unlikely.

In the end, drones did not significantly alter the concepts within the laws of war but only heightened their importance. This technology doesn't impact the fundamental goal of *jus in bello* but only makes the goals of accurately targeting military forces and truly limiting the collateral damage of warfare into a reality. Drones did not impact the spirit of the use of military force in *jus ad bellum* but only heightened the challenge of dealing with enemies that are not clearly defined as nation-state actors. We will be challenge as a society to return to traditional concepts of warfare and restrict the use of this technology to the limited situations where other non-violent methods cannot achieve the desired end goals.

## References

- Akande, D., 'Drone strikes: ethics and laws of 21st century warfare', (Oxford Martin School, 27 February 2014), <https://www.youtube.com/watch?v=QbLbelvj0H8> (Accessed: 24 January 2020).
- Annis, F. C., 'Technological Negation of Human Sexual Dimorphism: Leveraging Technology to Bring Non-Battle Injury Risk Closer to Parity Between the Sexes', Law Enforcement & Security Consulting, (2019), <http://lesc.net/blog/technological-negation-human-sexual-dimorphism-guest-post-franklin-c-annis-edd> (Accessed: 18 January 2020).

Aristotle (1985) *Politics*, tr. Carnes Lord. Chicago: University Press.

Augustine (1947) *City of God in: The Writings of St. Augustine*. Edited by Roy Joseph Deferrari, Rudolph Arbesmann, Bernard M. Peebles, Stephan Kuttner, Robert P. Russell, Martin R. P. McGuire, Anselm Strittmatter, Wilfrid Parsons, James E. Tobin, Gerald G. Walsh. *The Fathers of the Church*. 45 vols (Washington, D. C.: Catholic University of America Press, 1947-1948).

Becker, J. & Shane, S., 'Secret 'Kill List' Proves a Test of Obama's Principles and Will', (New York Times, 29 May 2012). [https://www.nytimes.com/2012/05/29/world/obamas-leadership-in-war-on-al-qaeda.html?\\_r=1&pagewanted=all](https://www.nytimes.com/2012/05/29/world/obamas-leadership-in-war-on-al-qaeda.html?_r=1&pagewanted=all) (Accessed: 20 January 2020).

Casey-Masien, S., 'Pandora's box? Drone strikes under jus ad bellum, jus in bello, and international human rights law', (*International Review of the Red Cross*, 94 (886) Summer 2012, pp. 597-625).

Clooney (2003). "Some Classical Resources Towards a Hindu Just War Theory" in: *Just War in a Comparative Perspective*, ed., Paul F. Robinson. Burlington, VT: Ashgate,

Connor, R., 'The Predator, a Drone That Transformed Military Combat', (Smithsonian National Air and Space Museum, 9 March 2018) <https://airandspace.si.edu/stories/editorial/predator-drone-transformed-military-combat> (Accessed: 18 January 2020).

Daso, D. A., *Architects of American Air Supremacy: General Hap Arnold and Dr. Theodore Von Karman* (Forest Grove: University Press of the Pacific, 2002).

General Atomics Aeronautical, 'Predator B RPA', <http://www.ga-asi.com/predator-b> (Accessed 18 January 2020).

Grotius, Hugo (2001), *On the Law of War and Peace*, tr. A.C. Campbell, AM. Kitchener, Ontario: Batoche Books.

Homer (1924) *The Iliad with an English Translation*, by A.T. Murray, Ph.D. in two volumes. Cambridge, MA., Harvard University Press, Cf. book 24, 505.

Hopkins, N., 'Afghan Civilians Killed by RAF Drone' (*Guardian*, 5 July 2011). <https://www.theguardian.com/uk/2011/jul/05/afghanistan-raf-drone-civilian-deaths> (Accessed: 18 January 2020).

Johnson, James Turner (2009) *The Holy War Idea in Western and Islamic Traditions*. Pennsylvania State: University Press, pp., 38, 79.

Parsch, A., 'RQ-2', (Directory of U.S. Military Rockets and Missiles), <http://www.designation-systems.net/dusrm/app2/q-2.html> (Accessed: 20 January 2020).

Plato (1992), *Republic*, tr. G.M.A. Grube, 2nd ed. New York: Hackett Publishing, cf. 470 a-b,  
Raindog Films, 'Eye in the Sky', (2015)

Salzman, Michele Rene (2007) "Religious Koine and Religious Dissent in the Fourth Century," in *A Companion to Roman Religion*, ed., Jörg Rüpke. Malden, MA: Blackwell, p. 120.

Shifton, J., 'A Brief History of Drones', (The Nation, 7 February 2020), <https://www.thenation.com/article/brief-history-drones/> (Accessed: 20 January 2020).

Terdiman, D., 'The History of the Predator, the Drone that Changed the World (Q&A)', (CNet, 20 September 2014), <https://www.cnet.com/news/the-history-of-the-predator-the-drone-that-changed-the-world-q-a/> (Accessed: 19 January 2020).

Trevithick, J., 'Secret Hellfire Missile with Sword-Like Blades Made Mysterious Strike On Terror Leader In Syria', (The War Zone, 9 May 2019), <https://www.thedrive.com/the-war-zone/27917/secret-hellfire-missile-with-sword-like-blades-made-mysterious-syria-strike-on-terror-leader> (Accessed: 18 January 2020).

'US Hellfire Missile Orders, FY 2011-2018', (Defense Industry Daily, 25 February 2019) <http://www.defenseindustrydaily.com/US-Hellfire-MissileOrders-FY-2011-2014-07019/> (Accessed: 18 January 2020)

Walzer, M., 'Is the Military Use of Drones Ethically Defensible', (Berkley Center, 19 March 2013), <https://www.youtube.com/watch?v=Pc2kOMJQJoQ> (Accessed: 20 January 2020).

Walzer, Michael, *Just and Unjust Wars*. 2nd ed.; New York: Basic Books.

Woods, C. & Lamb, C., 'CIA tactics in Pakistan include targeting rescuers and funerals', *Bureau of Investigative Journalism*, 4 February 2012, <https://www.thebureauinvestigates.com/stories/2012-02-04/cia-tactics-in-pakistan-include-targeting-rescuers-and-funerals> (Accessed 18 January 2020).

Woody, C., 'Congress may Repeal the Post-9/11 Act the US Military Used to Justify the Fight Against ISIS', (Business Insider, 29 January 2017), <https://www.businessinsider.com/a-bill-to-repeal-the-aumf-just-passed-2017-6> (Accessed 19 January 2020).

## End Notes

<sup>[i]</sup> D. A. Daso, *Architects of American Air Supremacy: General Hap Arnold and Dr. Theodore Von Karman* (Forest Grove: University Press of the Pacific, 2002).

<sup>[ii]</sup> R. Connor, 'The Predator, a Drone That Transformed Military Combat', (*Smithsonian National Air and Space Museum*, 9 March 2018) <https://airandspace.si.edu/stories/editorial/predator-drone-transformed-military-combat> (Accessed: 18 January 2020).

<sup>[iii]</sup> F.C. Annis, 'Technological Negation of Human Sexual Dimorphism: Leveraging Technology to Bring Non-Battle Injury Risk Closer to Parity Between the Sexes', *Law Enforcement & Security Consulting*, (2019), <http://lesc.net/blog/technological-negation-human-sexual-dimorphism-guest-post-franklin-c-annis-edd> (Accessed: 18 January 2020).

<sup>[iv]</sup> General Atomics Aeronautical, 'Predator B RPA', <http://www.ga-asi.com/predator-b> (Accessed 18 January 2020).

<sup>[v]</sup> N. Hopkins, 'Afghan Civilians Killed by RAF Drone' (*Guardian*, 5 July 2011). <https://www.theguardian.com/uk/2011/jul/05/afghanistan-raf-drone-civilian-deaths> (Accessed: 18 January 2020).

<sup>[vi]</sup> 'US Hellfire Missile Orders, FY 2011-2018', (*Defense Industry Daily*, 25 February 2019) <http://www.defenseindustrydaily.com/US-Hellfire-MissileOrders-FY-2011-2014-07019/> (Accessed: 18 January 2020)

<sup>[vii]</sup> S. Casey-Masien, 'Pandora's box? Drone strikes under jus ad bellum, jus in bellow, and international human rights law', (*International Review of the Red Cross*, 94 (886) Summer 2012, pp. 597-625).

<sup>[viii]</sup> J. Trevithick, 'Secret Hellfire Missile With Sword-Like Blades Made Mysterious Strike On Terror Leader In Syria', (*The War Zone*, 9 May 2019), <https://www.thedrive.com/the-war-zone/27917/secret-hellfire-missile-with-sword-like-blades-made-mysterious-syria-strike-on-terror-leader> (Accessed: 18 January 2020).

<sup>[ix]</sup> Raindog Films, 'Eye in the Sky', (2015)

<sup>[x]</sup> S. Casey-Masien, 'Pandora's box? Drone strikes under jus ad bellum, jus in bellow, and international human rights law'

<sup>[xi]</sup> C. Woods & C. Lamb, 'CIA tactics in Pakistan include targeting rescuers and funerals', *Bureau of Investigative Journalism*, 4 February 2012, <https://www.thebureauinvestigates.com/stories/2012-02-04/cia-tactics-in-pakistan-include-targeting-rescuers-and-funerals> (Accessed 18 January 2020).

<sup>[xii]</sup> A. Parsch, 'RQ-2', (Directory of U.S. Military Rockets and Missiles), <http://www.designation-systems.net/dusrm/app2/q-2.html> (Accessed: 20 January 2020).

<sup>[xiii]</sup> D. Terdiman, 'The History of the Predator, the Drone that Changed the World (Q&A)', (*CNet*, 20 September 2014), <https://www.cnet.com/news/the-history-of-the-predator-the-drone-that-changed-the-world-q-a/> (Accessed: 19 January 2020).

<sup>[xiv]</sup> C. Woody, 'Congress may Repeal the Post-9/11 Act the US Military Used to Justify the Fight Against ISIS', (*Business Insider*, 29 January 2017), <https://www.businessinsider.com/a-bill-to-repeal-the-aumf-just-passed-2017-6> (Accessed 19 January 2020).

<sup>[xv]</sup> J. Shifton, 'A Brief History of Drones', (*The Nation*, 7 February 2020), <https://www.thenation.com/article/brief-history-drones/> (Accessed: 20 January 2020).

<sup>[xvi]</sup> M. Walzer, 'Is the Military Use of Drones Ethically Defensible', (*Berkley Center*, 19 March 2013), <https://www.youtube.com/watch?v=Pc2kOMJQJoQ> (Accessed: 20 January 2020).

<sup>[xvii]</sup> J. Becker & S. Shane, 'Secret 'Kill List' Proves a Test of Obama's Principles and Will', (*New York Times*, 29 May 2012). [https://www.nytimes.com/2012/05/29/world/obamas-leadership-in-war-on-al-qaeda.html?\\_r=1&pagewanted=all](https://www.nytimes.com/2012/05/29/world/obamas-leadership-in-war-on-al-qaeda.html?_r=1&pagewanted=all) (Accessed: 20 January 2020).

<sup>[xviii]</sup> M. Walzer, 'Is the Military Use of Drones Ethically Defensible'

<sup>[xix]</sup> S. Casey-Masien, 'Pandora's box? Drone strikes under jus ad bellum, jus in bellow, and international human rights law', p. 634.

<sup>[xx]</sup> D. Akande, 'Drone strikes: ethics and laws of 21st century warfare', (*Oxford Martin School*, 27 February 2014), <https://www.youtube.com/watch?v=QbLbelvj0H8> (Accessed: 24 January 2020).