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KEEPING UP WITH THE DRONES: IS JUST WAR THEORY OBSOLETE?

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ABSTRACT

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The use of unmanned aircraft systems (UAS) by the U.S. military raises important questions regarding the relevance and application of traditional just war theory and the laws of armed conflict. For centuries, just war principles have defined how responsible states have agreed to ethically wage war. The manner in which unmanned weapons systems are employed today calls into question the relevance of the traditional Judeo-Christian principle of *jus in bello*, justice in war. The employment of UAS will be examined in the context of the tenets of *jus in bello*, which include: proportionality, discrimination, responsibility, *mala in se* (wrong or evil in itself), and the code of honor. The author asserts if statesmen and military leaders fail to adequately address the gaps and friction in just war theory created by this new technology, there will be profound implications for Soldiers, political leaders, and the world's civilian population in the years ahead.

KEEPING UP WITH THE DRONES: IS JUST WAR THEORY OBSOLETE?

If we continue to develop our technology without wisdom or prudence, our servant may prove to be our executioner.

-- General Omar N. Bradley[1]

In 2007, the U.S. military spent $880 million to purchase unmanned aircraft systems (UAS). The Air Force reported Predators and Reapers, the most predominant components of the United States' UAS arsenal, attacked targets in 244 of 10,949 missions in Iraq and Afghanistan in 2007 and 2008, or about 2.2% of the time.[2] In April 2009, in a speech at the U.S Air Force's Air War College, Defense Secretary Robert Gates stated there had been a 48% increase in UAS patrols in combat zones in the preceding year.[3] The Defense Department's Fiscal Year 2010 combined allotment for development and procurement of UAS is more than $4.2 billion.[4] UAS have become so central to U.S. efforts in Pakistan and Afghanistan that some observers have dubbed this front of the war on terror "the drone war." UAS technology which transmits images and information via satellite to distant command centers enables U.S. forces to attack targets within minutes rather than days. UAS are today considered a "must have" capability by military commanders in Iraq and Afghanistan, and the acquisition rate for these systems and the development of force structure to man them is accelerating rapidly based on demands from the field.

The employment of UAS occurs within the context of a rich tradition of Judeo-Christian principles, international laws, and treaties. The "just war tradition," which is the foundation for the existing body of international laws governing the conduct of war is as old as warfare itself. The earliest records of collective fighting indicate that some

moral considerations were used by warriors to limit the outbreak of unjustified war and to reduce the devastation and destruction which have historically been the inevitable by-products of conflict.[5] Over time, just war theory has evolved into a coherent set of concepts and principles which enable moral judgments in times of war. These values and concepts have made their way into binding treaties regulating the conduct of states during periods of war. The treaties regarding the conduct of war are collectively referred to as the "laws of armed conflict" or "laws of war."[6]

The introduction of unmanned aircraft systems to the battlefield raises new questions about the validity and modern day relevance of both just war theory and the laws of armed conflict. Have technological advances rendered the principles of just war theory obsolete? Is development of a replacement theory in order? Are there dangerous consequences in the offing if a discussion of these questions is deferred? This new way of waging war, with robotics and unmanned aircraft systems, has the potential to change the definition of who is considered a "combatant" versus a "non-combatant," and who therefore constitutes a legitimate military target. This distinction is at the very core of just war theory.

This paper includes an examination of the origins of just war theory as the basis for commonly agreed laws of land warfare, looks in depth at the *jus in bello* tenet of just war theory, and examines how unmanned aircraft systems challenge the long standing laws of war. The changes in combatants' proximity to the battlefield, the role of decision-making, and the responsibility for errors which new military robotic technology bring to the fore mandate that responsible nations grapple with the implications of employing these weapons systems, and come to agreement on how wars of the future

will be morally and ethically waged. Failure to address the gaps this new technology exposes in traditional teachings will have profound implications for Soldiers, political leaders, and the population at large in the years ahead.

On January 13, 2010, the American Civil Liberties Union (ACLU), under the provisions of the Freedom of Information Act (FOIA), asked the U.S. government to disclose the legal basis for the use of UAS to conduct "targeted killings" overseas. The ACLU request asked when, where and against whom UAS strikes can be authorized, and how the U.S. ensures compliance with international laws related to extrajudicial killings.[7] The employment of UAS has increased during the Obama Administration. In March 2010, for the first time the Administration laid out its legal rationale for the use of "drone strikes" in Afghanistan, Yemen, Somalia and Pakistan.[8] The spokesman for the Administration, State Department lawyer Harold Koh, argued the U.S. policy on the employment of UAS takes into account the just war principles of "distinction," (also known as discrimination), in that attacks are aimed at lawful enemy combatants and not civilians; as well as the principle of "proportionality," which prohibits attacks that may be expected to cause excessive damage in relation to their anticipated military advantage.[9] Koh's defense of the Administration's use of UAS was based on compliance with select tenets of just war theory and has been criticized by numerous scholars. Mary Ellen O'Connell, professor of law at Notre Dame, indicated it's "stretching beyond what the law permits for this very extreme action of killing another person without warning – without a basis of near necessity simply because of their status as a member of al-Qaida or a related group."[10] Similarly, the United Nation's chief on Extrajudicial Executions has said "the drone strikes violate international law."[11] The current debate

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among ACLU members, Obama administration officials, and scholars in the fields of ethics and law is indicative of the tension that has developed because of friction between traditional just war theory and the application of modern military technologies.

In a March 2010 interview, Dyke Weatherington, deputy for the unmanned aerial vehicle planning task force office at the Department of Defense (DOD) said, "it is difficult to find any other technology in the DOD that in a single decade has made such a tremendous impact on the warfighting capability of the department."[12] Today the U.S. leads the world in the development, acquisition and employment of UAS; UAS have become a fundamental component of how we wage war. The U.S. therefore has a responsibility as the global leader in this area to lead the discussion on how the employment of this technology challenges and potentially changes traditional just war theory which has governed the practice of armed conflict for centuries. This topic is of strategic importance not only to the United States but also to the broader global community because it is central to how wars of the future will be prosecuted.

What are Unmanned Aircraft Systems and Why Does the U.S. Military Love Them?

The majority of the military robots which exist today are UAS, also known as "drones." UAS are remotely-controlled, uninhabited aircraft used to support Intelligence, Surveillance and Reconnaissance (ISR); some UAS carry missiles and are used as a weapons platform. It's estimated today there are over 7,000 UAS of various types in the U.S. arsenal. Within NATO, there are more than sixty operational models of aircraft, and more than 2,200 ground control stations.[13] The most famous U.S. UAS, Predators and Reapers, are often piloted by operators located on U.S. military installations in Nevada and Arizona, on the other side of the world from the location of their targets.[14]

The method used to operate UAS in this manner is called reach-back or remote-split operations, meaning the systems are flying in the war zone while the pilot and sensor operators are physically located thousands of miles away, connected to the system via a satellite communications link.[15] The link of the sensors with their extended flight times means an unmanned aircraft system can fly in excess of 3,000 miles, spend 24 hours mapping out a target area of approximately 3,000 square miles, and then fly 3,000 miles back to its home base.[16]

In his widely acclaimed book, Wired for War, P.W. Singer documents the rapid increase in UAS employment since the start of the Iraq War. He recounts that when U.S. forces initially entered Iraq, there were no robotic systems on the ground during the original invasion. By the end of 2004, there were 150 such systems in place. This number increased dramatically in succeeding years – growing from 2400 in 2005, to 5000 in 2006, and reaching 12,000 by the end of 2008.[17]

UAS have two great advantages: they are much cheaper to fly than conventional planes, and they keep pilots and Soldiers out of harm's way.[18] As Singer explains, "unmanned systems are used for the jobs that meet the three D's: dull, dirty, or dangerous…as a commander of one of these units told Singer, he likes them because he doesn't have to worry about writing a letter to someone's mother."[19] Experts assert in the coming decade UAS designed to attack enemies on the ground and in the air will be the future of air power.[20] According to Air Force Chief of Staff, General Norton Schwartz, the Air Force will train more "joystick pilots" than new fighter and bomber pilots this year. According to Schwartz, "if you want to be in the center of the action, this is the place to be…it's not a temporary phenomenon…it's a sustainable career path."[21]

Another Air Force general officer forecast that given the growth trends, it is not unreasonable to postulate future conflicts "involving tens of thousands" of unmanned aircraft.[22] According to General Schwartz, the trend lines are clear; the U.S. Air Force will increasingly become "less of a manned aviation force."[23] These developments represent a true revolution in military affairs, by transforming the very agent of war – who fights wars and from where – in addition to transforming and advancing what we are capable of doing via technology.[24]

Just War Theory and the Origins of the Law of War

The laws of armed conflict, commonly referred to as the law of war, are a subset of international law. This body of law is based on centuries-old Judeo-Christian teachings which have been well-documented in the writings of a number of revered theologians. The Hague Conventions of 1899 and 1907, the Geneva Conventions of 1949 and the 1977 Protocols, regulate armed conflict and govern the actions of states which are bound by the laws and treaties to which they are signatories. The laws of armed conflict exist in order to establish minimum standards of decency and acceptable behavior on the battlefield. These laws represent a set of rules which are generally acceptable to a majority of nations as the standards for the humane conduct of war.[25] To better understand the laws of armed conflict, it is worthwhile to look closer at their origin and underlying principles.

The concept of justice in war was examined as far back as 400 B.C., in the writings of Plato and Aristotle. Just war theory was further developed and synthesized over time by a number of theologians, most notably St. Augustine and St. Thomas Aquinas in the 13th century.[26]   In his Summa Theologicae, Aquinas presents the

general outline of what has become traditional just war theory. In addition to discussing

the justification for war, he examines the kinds of activities which are permissible in war.

Aquinas's writings are generally recognized as the model upon which later philosophers

and scholars expanded and which gradually became the basis for universally

recognized just war theory beyond the realm of Christendom.[27] Just war theory is most

commonly divided into three parts. *Jus ad bellum* concerns the justice of resorting to

war in the first place; *jus in bello* concerns the proper or acceptable conduct within war

once it has begun; and *jus post bellum* concerns the justice of peace agreements when

armed conflict has ended.[28]

The culmination of 19th century thought on just war theory led to the translation of

moral principles into specific legal codes, in the form of the Hague Conventions, which

were drafted and adopted in ten different treaties between 1899 and 1907. Today, this

collection of treaties provides the widely accepted principles by which nation states

wage war, and sets clear parameters pertaining to "*jus in bello*" -- justice in the conduct

of warfighting.[29] Just war theory makes a clear distinction between "justice of war" and

"justice in war," which allows the judging of acts within a war to be disassociated from

the cause of the war. This distinction allows for the examination of whether or not a

nation fighting an unjust war may still be fighting in a just manner.[30]

Applying the Tenets of *Jus In Bello* in the Age of UAS

For the purpose of this analysis, we are concerned with the tenet of *jus in bello*,

rather than the just cause leading up to war, *(jus ad bellum),* or just actions following the

termination of hostilities, *(jus post bellum). Jus in bello* is the Latin term used by just

war theorists to refer to justice in war – to the right conduct in the midst of battle.[31]

Within the concept of *jus in bello* are a number of principles which will be examined in the context of the employment of UAS.   These principles are discrimination, proportionality, responsibility, *mala in se*, and knightly honor.[32]

The principle of discrimination concerns who are legitimate targets of war.[33] Many war theorists believe the requirement for discrimination and non-combatant immunity are the most important aspects of *jus in bello*, and these are in fact the most stringently codified rules within the international laws of armed conflict.[34] On a pragmatic note, from the perspective of warring governments it is "cheaper and less messy" to keep battles on the battlefield.[35] But beyond that, discrimination is intended to protect the civilian population by clearly defining what qualifies an individual as a valid military target.

The employment of UAS alters the traditional definition of discrimination in that it eliminates the need for the combatant to be in physical proximity to a potential adversary in order to assess his combatant status, actions and the potential danger he poses. In testimony to the U.S. House Armed Services Committee, David Kilcullen, a former Australian Army officer who was a top advisor to General David Petraeus and a key counter insurgency theorist testified "we need to call off the drones," recounting that "since 2006, we've killed 14 senior Al Qaeda leaders using drone strikes; in the same time period, we've killed 700 Pakistani civilians in the same area. The drone strikes are highly unpopular…and deeply aggravating to the population."[36] According to Kilcullen and the testimony of other administration officials, the drones' record for accuracy and discrimination is far from perfect.

A number of human rights groups have also called into question the "discriminate nature" of U.S. drone employment, and have voiced concern about an over-reliance by U.S. forces on UAS in situations where significant uncertainty about combatant vs. non-combatant targeting is widespread. In a highly critical report submitted by United Nations special investigator Philip Alston in June 2009 to the UN Human Rights Council in Geneva, Alston charged the U.S. had created "zones of impunity" by rarely investigating private contractors and civilian intelligence agents involved in the killing of civilians from "drone attacks."[37] According to Human Rights Watch, those who fail to discriminate between combatants and civilians are responsible for war crimes, citing their position that UAS are covered by the same rules as manned systems, and the personnel who operate drones are no less responsible for their use than other soldiers operating other lethal weapon systems.[38]

The principle of proportionality addresses how much force is morally appropriate or permissible.[39] Proportionality calls upon leaders not to engage in conflict if there are less costly or less destructive options available, for instance employment of economic or diplomatic measures rather than military force. If employing military force, leaders must ensure the relative appropriateness of the force used based on the perceived threat. The principle of proportionality is prudent in that it recognizes at some point the armed conflict will end, and the means and methods by which the war was fought will affect the cost of post-war reconstruction and the prospects for long term peace and security.[40] The principle of proportionality is subjective; it requires a commander or combatant to assess whether or not the employment of a particular system or tactic is appropriate as opposed to another based on the circumstances.

The subjective assessment which is required to evaluate proportionality assumes a human is "in the loop." Some critics believe it is inevitable that over time unmanned aircraft systems infused with artificial intelligence (AI) designed to make employment decisions will be developed, and when this occurs the human controller will be removed from the decision making loop. Opponents of these AI-invested weapons base their opposition on the fact these machines will lack the human perspective and moral awareness to adequately assess proportionality.[41]

According to Singer, it is inevitable that autonomous armed robots are coming to war, because "they simply make too much sense to the people that matter."[42] A 2002 U.S. Army report addressed the challenges military decision makers face because of the exponential increase in the quantity of information and intelligence presented to them – which has the effect of "shrinking" reaction time available for decision making. In military parlance, this decision making cycle is known as the OODA loop, which stands for "observe, orient, decide and act."[43] The report identified the solution to the shortened OODA loop as the integration of AI into automated systems – with the end result being machines built with the capability and responsibility to assess and determine appropriate courses of action for their own employment. This development would put the principle of proportionality at risk.

The principle of responsibility mandates agents of war be held accountable for their actions.[44] According to the Geneva Conventions, it is all and only those bearing arms who are legitimate targets in time of war.[45] It is generally accepted that Soldiers killing other Soldiers is part of the nature of war, but when Soldiers turn their weapons against non-combatants or pursue the enemy beyond what is reasonable, they are no

longer engaged in legitimate acts of war, but rather acts of murder.[46] When we apply

the principle of responsibility to the employment of UAS we encounter a significant

challenge when attempting to identify the "agent" responsible for their destruction and

deadly effects. For the enemy combatant attacked by a UAS' hellfire missile, the pilot or

controller who fired the missile is far from the battlefield. Is the remote pilot the

responsible agent? If the answer is yes, and the pilot is stationed at Nellis Air Force

Base in Nevada, is that pilot a legitimate target when walking on the Las Vegas strip

with his spouse or when attending his child's sporting event in a Nevada suburban

park? The distance between operator and target creates a new paradigm which

challenges old principles.

In Just and Unjust Wars: A Moral Argument With Historical Illustrations, Michael

Waltzer argues advances in military technology have effectively extended "combatant

status beyond the class of soldiers."[47] Waltzer argues that without troops on the

battlefield, attention must be paid to the question of which people, who might otherwise

be considered civilians, should instead be considered engaged in the business of war.

He raises the question of whether or not it's morally appropriate to target those who are

"agentially" responsible for the threat to one's life.[48] When the employment of UAS

removes the adversary from the battlefield, does the ring of responsibility expand to

include the programmers who created the smart, remote weapons systems? Or to the

executives of defense contracting firms who oversaw the weapons' production? Or to

political leaders who funded the purchase and endorsed the employment of the

technology? Author Suzy Killmister discusses the possibility and legality of the

assassination of civilian combatants in public spaces based on their approval of the use

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of UAS.[49] Similarly, Jeffrey Smith, a former CIA general counsel said in a Washington Post interview that ongoing drone attacks could "suggest that it's acceptable behavior to assassinate people…Assassination as a norm of international conduct exposes American leaders and Americans overseas"[50] This scenario most certainly has profound strategic implications for the all of us. The traditional definitions of responsibility, combatants, and just targets become significantly more complicated and also blurred in the age of UAS.

The principle of *mala in se*, (wrong or evil in itself), holds that Soldiers may not use weapons or methods which are "evil in themselves." Such methods have historically included genocide, ethnic cleansing, rape, and the employment of weapons whose effects cannot be controlled, such as biological weapons or land mines.[51] Can a reasonable argument be made that UAS are unjust in and of themselves? It is a fact that like chemical and biological weapons, and land mines, UAS restrict the options of retaliation available to the Soldiers or state under attack.   A state under attack from UAS weaponry is unable respond in the traditional, just war sanctioned manner of targeting combatants on the battlefield – because the combatants simply aren't there.[52]

It is generally agreed the first right of all Soldiers is to kill enemy Soldiers; this is part of international law.[53] The distant "drone pilots" of these systems are safe from attack by virtue of their distance from the battlefield. Just war theory states if you typically cannot identify who's responsible for the employment of a weapon then the weapon itself is unethical. The theory maintains if the nature of the weapon prevents the clear identification of the individual responsible for its employment – and the ensuing death and destruction is causes – the weapon itself violates one of the principle

requirements of *jus in bello*. The argument can be made that UAS fall into this category of prohibited weapons by virtue of the fact the "responsible party" in the drone attack cannot be clearly identified by the enemy.[54]

Similarly, some just war scholars argue the least we owe our enemies is allowing that their lives are of sufficient worth that someone should accept responsibility for their deaths. Grieving relatives are entitled to an answer as to why their Soldier died and who is responsible. When a UAS is the weapon of choice, it is often the case that neither the enemy Soldier nor his family knows who the attacker was, or specifically why the individual was targeted.[55] So the question we must ask is are UAS *mala in se* by virtue of the fact they deny the enemy the opportunity to know or kill their attackers, and prevent a grieving family from knowing who is responsible for their loss.

The code of honor, or chivalry as it's sometimes called, concerns fighting "fairly," or adhering to the warrior ethos.[56] This principle is understood in the context of the international order of knighthood.[57] These early traditions invoked considerations of honor, and held that certain acts of war were deemed dishonorable in and of them selves, and were therefore shunned by the warrior class, while other actions were deemed honorable, and therefore permissible.[58] Just war doctrine was developed centuries ago when armed conflict was up close and personal. Soldiers "hacked at one another with blades or shot at one another with arrows."[59] On a very practical level, the weapons available were limited and limiting. Generally, soldiers could kill only one enemy at a time. As described by Eric Patterson, on a moral level, the limited reach of these weapons meant the combatants employing them encountered great personal risk. These face-to-face, mano-a-mano encounters were characterized by an inherent

"fairness" as Soldiers faced one another, armed with similar weapons, in a well-defined space.[60]

Singer points out that while the U.S. may hope its technological superiority will create fear or engender respect from its adversaries, to many Afghans and Pakistanis the use of weapons operated remotely is viewed as dishonorable because the Soldiers employing the systems aren't taking any risks themselves.[61] In the Pashtun tribal culture which is characterized by honor and revenge, face-to-face combat is considered brave, while dropping missiles from UAS flying at 20,000 feet is not.[62]

It is not just our adversaries that have issues with crediting warrior attributes to UAS pilots. Singer, in Wired for War, interviewed Colonel Charlie Lyon, assigned to the 57th Operations Group at Nellis Air Force Base, who commands a unit of pilots working twelve hour shifts, seven days a week, fighting the war in Afghanistan from Nevada. When asked if he thought his Predator pilots were "at war," Colonel Lyon said no, explaining it was "exposure to risk that defined whether he respected someone as a fellow combatant."[63] With the removal of pilots from the risk of peril and fear, UAS have created a break in the historic connection that defines warriors and their soldierly values. According to Singer, we must ask if these new warriors are disconnected from the old meaning of courage as well.[64] On a similar note, Air Chief Marshal Sir Brian Burridge, who commanded the British military forces during the Iraq War, described UAS as part of a move toward "virtueless war…requiring neither courage nor heroism, and results in remote soldiers no longer having any emotional connectivity to the battlespace."[65]

Counterpoint: the Moral Argument in Favor of UAS

While there are those who argue against increasing the role of UAS on moral grounds, there are at least an equal number who argue in favor of expanding their role and increasing the UAS inventory. These advocates argue that UAS provide improved "discrimination," and enable a more robust situational awareness and better battlespace visualization. They maintain if enhanced with certain elements of AI, UAS have the potential to be "more ethical" than human combatants. There are also those who argue for any system which lessens the risk to our Soldiers, regardless of whether the "fairness" principle, a critical component of *jus in bello,* is jeopardized. A brief look at each of these arguments is in order.

In his article, "Killer Weapons Systems," Robert Sparrow discusses UAS, and the aspirations of developers for future systems to be capable of discriminating reliably between civilian and military targets. Proponents of UAS argue weapons capable of choosing their own targets are morally superior to "dumb" weapons.[66] In a 2009 study, Human Rights Watch reported on the Israel Defense Forces' (IDF) use of missiles launched from UAS in Gaza from December 2008 through January 2009. Although the Report indicated the IDF failed to take reasonable precautions to verify targets as combatants, and therefore violated international humanitarian law,[67] it recognized the precision of Israeli drone-launched missiles.[68]   Human Rights Watch investigators praised the systems' high resolution cameras which allowed operators to observe potential targets, the infrared capability which enabled effective day and night employment, and sensors which allowed UAS operators to "tell the difference between fighters and others directly participating in hostilities, who were legitimate targets and civilians, who was immune from attack, and to hold fire if that determination could not be

made."[69] The report lauded the ability of the operator, via the missile's remote guidance

system, to divert a fired missile in the event there was last-minute doubt regarding a

target's legitimacy.[70] Human Rights Watch's Marc Garlasco recounted the employment

of UAS during the 2006 Lebanon war, and how remote pilots, because they were not

facing risk, were able to loiter over potential targets for hours if necessary in order to

determine whether or not it was appropriate to strike them.[71]

Advocates of UAS also argue not only do these machines have the ability to

"see" better than humans and therefore make more accurate targeting decisions, but

also offer a unique level of consistency which can be incorporated into an ethical

decision making model. Proponents of this position assert machines are capable of

rigorously following logically consistent principles, while humans easily stray from

principles because we get carried away by emotion.[72] Singer, in praising the potential

for consistency in AI-infused machines, notes machines are not governed by passions

of loss, anger or revenge. They also do not "suffer from fatigue that can cloud

judgment, nor do they have those unpredictable testosterone fluctuations that often

drive 18-year old boys to do things they might regret later in life."[73]

On a practical level, some argue in favor of UAS' technological capabilities, not

because of their moral "fairness," but precisely because they have the potential to

provide U.S. forces with an unfair advantage. Singer notes the development of

technological advances over the last few years which have made the UAS of today

possible coincided with changing political winds in the U.S. With the end of the Cold

War, the U.S. military shrunk by more than thirty percent through the 1990's, and public

tolerance for military risk began eroding. As described by Major General Robert Scales,

the new era of warfare was one in which "dead soldiers were America's most vulnerable center of gravity."[74] It is against this backdrop of public opinion that former Secretary of the Army, Pete Geren, said "we do not ever want to send our Soldiers into a fair fight."[75] Geren, speaking at the 2007 LandWarNet Conference, went on to describe how the Army seeks to integrate "every element of Army modernization and seamlessly connect the Leader to the Soldier…and the Soldier to the information he or she needs."[76] Advocating the "unfair" fight, Geren said "our challenge is to give our Soldiers the edge – in whatever battlespace the enemy chooses – to take the fight to the enemy on our terms – not his."[77]

Is Just War Theory Obsolete?

The principles of just war, codified in the Geneva and Hague Conventions, have to date served humanity and civilized nations fairly well. Historically, responsible nations and internationally recognized institutions such as the United Nations and the International Committee of the Red Cross (ICRC) have worked in concert to restrict, outlaw and condemn certain munitions, weapon systems and practices deemed to violate the laws of war and the tenets of just war theory. The ICRC position on robotics, or rather its lack of a position, is representative of the current breakdown between the traditional laws of war and the reality of conflict in the 21st century.[78]

The current ICRC position states: "we have no particular viewpoint or analysis to provide."[79] As important as the ICRC has been in shaping and guarding international law over the last century, it is not yet driving discussion on what stands to be one of the most important weapons developments of this century.[80] We stand at a crossroads, on the verge of entering a new era regarding how we define "just war," or if the very

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concept of just war is obsolete. Much is at risk. We must not allow technological

advances in weapon systems to surge ahead in a policy vacuum – to do so would be

morally irresponsible.

It is indisputable that UAS change the battlefield significantly, by altering the

traditional definition of who is and who is not a combatant. The essential elements of

jus in bello – discrimination, proportionality, responsibility, mala in se, the code of honor

– are altered when applied in the context of remote weapons. Because the fundamental

tenets of just war theory are inadequate when viewed in the context of our most modern

weapons, it is essential the rules for employing these weapons be analyzed and

discussed. Many voices ought to take part in this discussion. As noted by Singer, "not

merely scientists, but everyone from theologians…to the human rights and arms control

communities, must start looking at where the current technology is taking…our weapons

and laws."[81] It is essential for responsible nations which have in the past agreed on how

we humanely wage war, to convene now to discuss these technological developments

and their implications for warfare of the future.

Although the majority of this paper has been focused on just war principles and

laws established in treaties and conventions, ultimately the ethical questions raised here

have to do with our humanity, and how evolving war technology has the potential to

change our values – actually, to change us. One of Singer's most compelling interviews

in Wired for War is with D. Keith Shurtleff, an Army Chaplain who at the time was

serving as an ethics instructor at Fort Jackson, South Carolina. Shurtleff's main

concern was that as "soldiers are removed from the horrors of war and see the enemy

not as humans but as blips on a screen, there is a very real danger of losing the

deterrent that such horrors provide."[82] Writing in U.S. Catholic magazine, Kevin Clarke, also ponders the question of the morality of UAS, saying "somehow the drones effectively hide the bloody hand of extra-judicial killing behind their essential technological coolness."[83] Like Shurtleff, Clarke is concerned the inhuman distance of UAS operators from their targets "threatens to further numb us to the human toll of…war and future conflict."[84]

Failure to examine whether the laws of war remain relevant or should be modified is dangerous. If we delay or indefinitely defer this discussion the risks associated with this procrastination will continue to accumulate. Without broad agreement on the fundamental issue of who is a legal combatant, ordinary civilians who develop this technology and elected leaders who approve its employment potentially become targets at home and abroad. As the operators of weapon systems become more distant from the physical battlefield, the killing process is "sanitized"; UAS operators' exemption from physical danger creates a scenario in which "virtueless" war becomes the norm. In such an environment, the warrior ethos is potentially forever altered – and not for the good. Another risk we face if employment of this technology proceeds unchecked and its moral implications unexamined, is the arrival of the day when a "human in the loop" in UAS employment becomes unnecessary. If that day arrives, the principle of proportionality is irrelevant – because human assessment of the cost versus benefit decision regarding a military strike will have been eliminated. These are just a few of the eventualities which await us if we fail to adequately address how UAS changes the conduct of modern warfare. The seriousness of these issues makes

this an issue of strategic importance for the United States, as well as both our friends and our adversaries around the globe.

There is a theory called "descriptive realism" which postulates that states either do not (for reasons of motivation), or cannot (for reasons of competition) behave morally.[85] These realists view the international arena darkly, and assert that once war has begun, a state ought to do whatever it can to win.[86] For those with this mindset, or those unconvinced the issue of UAS employment is worthy of examination solely on moral or ethical grounds, there is a parallel argument which is quite pragmatic. The same creativity and innovation that have made UAS technology possible are also responsible for the miniaturization of cameras, GPS receivers, and computer components which make the assembly of small and inexpensive drones not particularly difficult. The result of these advances is that unmanned aircraft systems may soon be widely available to creative insurgents and terrorists targeting American forces, U.S. citizens, and other freedom-loving people around the world. Unfortunately, the United States and its allies do not have a monopoly on the production and employment of these weapons. As noted by Fred Reed of the Washington Times, "usually, we think of military technology as working in favor of American forces. If we are talking about fighting conventional forces, this is reasonable."[87] Reed points out though the wars we are actually fighting these days are against urban guerrillas and insurgents who can blend into rural village populations. With this in mind, he warns that "maybe people who live in glass houses shouldn't invent better stones."[88] The "better stones" now exist. The time has arrived for leaders of responsible states and stakeholder organizations to examine and rewrite the rules governing how we throw them.

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