Strategy Research Project

The Moral Implications of Unmanned Aircraft Systems upon Coalition Warfare

by

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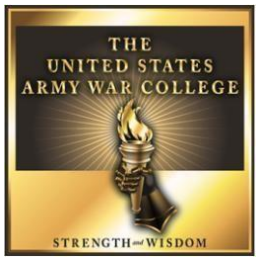

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A unique nexus exists between coalition warfare, its employment of Unmanned Aircraft System (UAS), and Just War Theory (JWT). Understanding the profound moral implications of UASs upon coalition warfare will facilitate successful combined engagements. This paper will examine UAS usage in coalition warfare within the framework of JWT and highlight the results to coalition cohesion, integration, and future relationships. It will then provide several recommendations on the way forward.

The Moral Implications of Unmanned Aircraft Systems upon Coalition Warfare

War is a human endeavor. Man's thumbprint permeates all aspects of war and its conduct. Whether making the decision to declare war against another or engaging in hand-to-hand combat with another soldier in the trenches of Verdun, even a layperson cannot overlook man's role in war. Equally prominent throughout war, however, is the role technology plays. Even a casual examination of warfare's history reveals a myriad of technological aspects and their pervasive function in war across the years. Some scholars argue that technology has driven the changes in how man fights.[1] Others have argued against technological determinism, saying that it is man who has changed how he fights and adapted technology to fit those means.[2] Regardless of the genesis, there can be little argument that warfare technology has evolved throughout history. From the first hand-held spears that morphed into human-powered projectiles hurled at enemies to those launched from bows and eventually from tubes of gunpowder, the advancement of technology has dramatically impacted how adversaries battle. The advent of the aircraft is no exception.

From its first successful powered flight in 1903, the airplane's evolution has been remarkable and had momentous effects on the battlefield. History has watched it progress from a slow and relatively non-maneuverable platform to a supersonic, agile, effective force multiplier. Payloads have also evolved from single, low-yield weapons to multiple, varying, high-yield, precise munitions. Perhaps the most impressive advancement has occurred within the aircraft itself. In several platforms, machine has replaced man in the cockpit. The Unmanned Aircraft System (UAS) has been in existence in some form for over a century now, but the contemporary system prominent in today's global conflicts is only about a couple of decades old. Its own evolution has

involved a migration from surveillance and intelligence operations to including direct action and assault missions. Loiter times have advanced from hours to days making UAS presence a 24/7 possibility. The United States (U.S.) is not the only country to recognize the UASs usefulness. As of mid-2012, nearly 80 countries, most of which are U.S. partners, have acquired UAS platforms.[3] The recent widespread proliferation alters the dynamics of coalition warfare.

Gone are the days of unilateral action; coalition warfare is the present reality. While it is not impossible to "go it alone," such a mentality rarely achieves the desired result. In fact, more times than not, unilateral military action is counterproductive in the long term. Partnering adds capability, resources, diplomatic ties, access, and many other aspects favorable to achieving desired results.[4] Perhaps the most influential aspect a coalition provides is legitimacy. The operations in Iraq of early 2003 in which the U.S. led a comparatively small coalition provide a notable example of the ill effects of perceived unilateral action. The U.S., though not completely alone, suffered losses in both legitimacy and prestige in Operation Iraqi Freedom.[5] Many observers believed that the U.S.' foray into Iraq bordered on, if not crossed over, the line of just war. The U.S. is still feeling the ethical backlash of its perceived unilateral action today.

Just War Theory (JWT) has a long history dating back several centuries. Where it stands currently is a product of not just time but of many individual contributions during those periods. Despite the multitude of years and contributors, JWT has generally revolved around a goal of limiting the inhumanities of war by restraining rationale for and means during fighting. Michael Walzer states it simply: “The restraint of war is the beginning of peace.”[6] It also seeks to obtain a sustained peace, to require

contemplation prior to engaging in armed conflict, and to minimize the inherent atrocities associated with war.[7] Traditionally, JWT primarily discussed going to war, or *jus ad bellum,* and the conduct of war, or *jus in bello*. Recently however, the conversation has begun to include the justness within war termination, *jus post bellum*, as well.

A unique nexus exists between coalition warfare, its employment of UASs, and JWT. Understanding the profound moral implications of UASs upon coalition warfare will facilitate successful combined engagements. This paper will examine UAS usage in coalition warfare within the framework of JWT and highlight the results to coalition cohesion, integration, and future relationships. It will then provide several recommendations on the way forward.

Jus Ad Bellum

Jus ad bellum has its roots in the Greek philosophers Aristotle and Plato. Their beliefs that right intention and the "good of many versus that of a few" should take precedence are the cornerstones of current ad bellum thoughts in JWT.[8] Years later, the Roman Cicero added to the burgeoning theory with his ideas of self-defense and other-defense.[9] Another major contributor to the contemporary just ad bellum thoughts in JWT was Aquinas. He added the concept that a genuine political authority must be the entity to declare war.[10] While many other theorists over the years offered nuanced additions, these three thinkers were primarily responsible for the commonly accepted jus ad bellum core principles: just cause, right intention, public declaration by proper authority, last resort, proportionality, and probability of success.[11] While each of these six principles are significant in their own right, the latter three principles have a more direct correlation to UAS usage and coalition warfare. Thus, this paper will limit its jus ad bellum focus to the last resort, proportionality, and probability of success.

To begin, a better understanding of these three principles is necessary. Last resort ensures the consideration of every other *reasonable* option to resolve conflict.[12] It does not mean that decision-makers must consider every option, just every reasonable one. Some will argue there are always options other than armed resolution. The addition of “reasonable” to the description yields a grey area defined by subjectivity and based on the adversaries' context. It allows actors to weigh the costs and benefits of options against the backdrop of their specific situations to determine what is reasonable and what is not. Proportionality is loosely aligned with the idea of the punishment fitting the crime. This JWT principle ensures adversaries understand that armed conflict is at the far end of the resolution spectrum; therefore, the initial provocative action must be considered equally heinous. The probability of success principle ensures actors consider their chances for a victory through an armed struggle. This thought process endeavors to limit wanton bloodshed for the purpose of personal gain, as well as avoid unwarranted escalation by keeping opponents' actions on par with each other's.

UASs alter a state's calculus when deciding to go to war. The *jus ad bellum* principles of last resort, proportionality, and probability of success present unique considerations to a leaders' decision-making process. First, the perceived ease of reaching objectives with UASs lends itself to being a quick solution to struggle and, hence, violates the principle of last resort. Daniel Brunstetter, a noted political scientist at the University of California at Irvine, fears that drones are, “A default strategy to be used almost anywhere.”[13] Because UASs are comparatively quiet, inexpensive to operate, and have a precision kinetic capability, they can often become the “go-to” fix for an armed problem. While soldiers deployed on the ground typically equates to a

state's increased commitment to the conflict, the perceived less-invasive UAS presence raises fewer concerns of persistent occupation and commitment. The associate diminished commitment can be seductive for a government attempting to coerce another entity. Despite its inherent kinetic foundation, it tends to represent a compromise between doing nothing militarily and engaging in full spectrum operations. This middle ground makes it easier to resort to a UAS solution instead of exploring all reasonable options.

Second, the UAS precision strike capability and smaller footprint provide a greater degree of proportionality than other military options. They offer another level of graduated response similar to covert special operators or other aircraft in small numbers with less of a logistical support requirement. UASs, however, differ significantly in that they do not risk a state's most valuable resource: its military men and women. The automated notion of a UAS makes it appealing to heads of state when crafting a military response. The decreased level of physical risk to the military tends to make it an easier course of action to sell to a state's people and governing bodies. UASs also facilitate the transition from non-kinetic to kinetic options. The MQ-1 Predator and MQ-9 Reaper are two of the most predominant U.S. UAS in operation today.[14] While they are similar in many ways, the main differences between the Predator and Reaper is their size, resultant payload, and role. The former is primarily an Intelligence, Surveillance, and Reconnaissance (ISR) platform; the latter is primarily a strike system, often referred to as a Hunter-Killer platform, describing its ability to both find and strike targets.[15] The MQ-1 and MQ-9 capability differentiation is significant, but the platform similarities highlight the ease of transition between an ISR or non-kinetic option and a strike or

kinetic one. Even an MQ-1 armed with an AGM-114 Hellfire can quickly flow from an ISR mission to a strike one if required.[16] That simplicity of transition between a non-kinetic mission and kinetic one permits quick, proportional escalation, if necessary.

Third, unmanned aircraft systems are a double-edged sword with regard to *jus ad bellum's* principle of probability of success. On one hand, the ability to target key individuals with relative impunity can appear successful on the surface. This paper will not delve into the much-debated legitimacy of decapitation or strategic strike approaches. Instead, its argument will assume that a key target found, fixed and struck could prove successful on a tactical scale. Consequently, if that is the case, the lure of a UAS solution is relatively strong. The risk, however, of attaining that tactical victory is stumbling into strategic failure with an errant bomb that kills civilians. The ramifications of such an error can be far reaching, can negatively affect a state's legitimacy, and are never far from decision-makers' minds. Perhaps more important, however, is that the attractiveness of a quick, effective military response via a UAS can become just the beginning of a long, slippery slope of escalation, progressing further right along the spectrum of war. It becomes the responsibility of leadership to consider the possible progression of war and the state's probability of future success.

UAS usage within the context of coalition warfare further complicates a state's decision whether or not to go to war. The *jus ad bellum* principles of last resort, proportionality, and probability of success can influence coalition effectiveness in several different ways. First, perceived cavalier usage of UASs carries with it the connotation of less commitment to any military action. Cohesion begins to suffer when contributing states appear not to provide as much to the effort as the others. There is an

apparent imbalance when one state commits its men and women, its true blood and treasure, while another contributes only machines. Furthermore, that seeming inequity can make a UAS state appear willing to move toward military action quicker. While that may not necessarily be the truth, the perception can be devastating to a coalition.

Second, leaders decide to go to war after substantial forethought. They make choices in the best interest of some entity based on some level of intelligence. Most UASs are ISR platforms with sensor packages that can improve those intelligence levels and subsequent *jus ad bellum* decisions. UASs have the capability to gather great amounts of pertinent data for analysts to decipher, and depending on what information is then shared**,** a coalition can make a more informed and united decision about the way forward.

Embedded in this seemingly positive side of UAS capability and coalition decisions to go to war is a less obvious third aspect. To obtain this valuable information, UASs must be physically in position to do so. Unless the target area is located along a border or within a small state, in most cases UASs will be unable to gain the necessary fidelity without violating some degree of that state's sovereignty. Coalition use of UASs could discover only harmless adversary intentions, ultimately informing the group that military action is unnecessary or undesirable; however, the mere act of discovering that information may involve crossing physical and/or ideological lines that cause the conflict to escalate regardless of the intelligence.

Both the UAS' intelligence gathering attributes and the gray area of sovereignty its gathering creates affect yet another prominent aspect of a coalition, the member countries' civilian populace. The military aspects it embodies do not alone provide a

coalition its unity and power; the civilian populace also plays a large role. The media tends to be the main communication conduit between military and civilian actors. The media and civilian opinion, thus, can be a significant factor in coalition effectiveness. Any pertinent intelligence UASs obtain can either build the foundations of support or fuel the fires of opposition. In the buildup to Operation IRAQI FREEDOM, intelligence from UASs, as well as others, did both. Proponents of military action used supporting information about the presence of weapons of mass destruction in the country. Opposition to military action cited the fissures in the same intelligence to garner their own support.[17]

This intelligence dichotomy highlights its interpretive aspect and the importance presentation can have on the result. Media coverage of UAS ISR mission results can be definitive in the direction a state's civilian population leans. It could also provide the necessary evidence to the additional members of the international community to bring them into the coalition's fold or at least keep them from interfering if action is warranted. While still intricate in nature, *jus ad bellum* tends to be the least complex aspects of Just War Theory. Contrarily, navigating actors' just conduct in war entails varying degrees of debate-fueling ambiguity.

Jus in Bello

Once leaders decide to go to war, an analysis of JWT's *jus in bello* ideal takes center stage. Conduct in war often contains less clear-cut, black and white answers than the decision to go to war. The gray areas of *jus in bello* are numerous but like *jus ad bellum*, its principles are historically based. Augustine introduced the idea of intentions within the context of warfare, saying that the reasoning behind actions mattered as much as the actions themselves.[18] He also believed some weapons, like

the crossbow, tipped the scale of fairness and should be banned, leading to the idea of proportional action or response.[19] Aquinas took *jus in bello* further through his idea of non-combatant designation, calling it the doctrine of double effect.[20] Hugo Grotius added the right for retribution for previous inequities to the proportionality discussion.[21] Throughout the subsequent years, there were other nuanced contributions, but the basic principles of *jus in bello* evolved into three: right intention, proportionality, and discrimination. Right intention is concerned with the rationale behind a state's actions in war.[22] It focuses less on the result achieved, both positive and negative, and more on the motivation behind getting to whatever result occurred. The subjectivity of right intention makes a thorough examination extremely difficult; therefore, this paper will limit its *jus in bello* discussion to proportionality and discrimination.

Before delving into the UAS role in *jus in bello*, it is important to have a clearer understanding of both the principles. Proportionality is similar to the same principle in *jus ad bellum* but concerns itself with choices made **in** war. A nuclear response against another state due to its refusal of an insignificant economic trade term would likely be disproportionate and, thus unjust. Discrimination centers on keeping the negative effects of war directed at the appropriate audience. It is primarily, but not solely, concerned with the difference between combatant and non-combatants. Even in this short discussion of just two of the principles, ambiguity arises. Does proportionality differ for an actor with an extremely limited list of options, all of which may appear disproportionate at the outset? Does discrimination change when non-combatants claim enemy coercion? An ethical purist will argue that an actor still must consider proportionality and discrimination within the context of the available options, but the

deeper one delves into the principles of *jus in bello*, the less clear it can appear. The addition of UASs to the equation clouds the calculus even further.

Unmanned aircraft systems' precision engagement and loiter capabilities introduce unique points to the proportionality discussion. Global-positioning satellite aided munitions allow UASs to strike targets with deadly accuracy. Error within the munitions and system itself is so small that pinpoint targeting is possible. Combine this accuracy with the ability to remain overhead an area of interest for long periods and UASs create an ever-present formidable adversary. Grotius retribution view fits nicely with the UAS' precision strike and loiter capability. A UAS holding overhead an area where expected enemy activity will occur is able, in many cases, to strike immediately after an enemy attack and with great precision. Such a timely, deadly, and proportional response can become a great deterrent for future adversary action. Even if the strike misses its intended target, the ability to retaliate so quickly because of the UAS' presence can have a significant psychological effect creating an almost Pavlovian response in which an initial enemy action will almost certainly receive a deadly response.

UAS precision strike capability is a double-edged sword, however. The ability to put munitions on near exact points based on near real-time intelligence does not mean that it occurs every time. It does mean, however, that the expectation to do so is there every time. In essence, the technology and skill to precisely strike in certain conditions and circumstances has created the belief that it will always be done despite conditions and circumstances. Munition and system malfunctions, data misinterpretation, and other aspects of Clausewitzian fog and friction can make errors not only possible but also

probable. When a machine is seemingly responsible for those errors, people will tend to amplify the perceived level of detachment and subsequent disproportionality of UASs.

Many believe that the other side of the coin is equally damning. When UASs perform as expected and designed, striking with unparalleled accuracy and timeliness, often selecting a single, high-value human target for termination, critics denounce those who own and operate the UAS as “playing God.” They believe that by selecting a human for termination with relative impunity, the UAS and its operating team are deciding who lives and who dies; they hold the ultimate power of life and death in their hands. Not only does this type of targeted killing blur ethical lines but it arguably crosses legal ones as well. Executive Order 12333 paragraph 2.11 addresses assassination. It states, "No person employed by or acting on behalf of the U.S. Government shall engage in or conspire to engage in assassination."[23] Paragraph 2.12 limits indirect participation as well, directing that, "No element of the Intelligence Community shall participate in or request any person to undertake activities forbidden by this Order."[24]

The moral and legal gray area of targeted killing raises the question of why kill instead of capture. UASs are able to move from intelligence collection on a target area to striking with just the push of a button. They, however, cannot capture an individual on their own. Even if the time from collection to exploitation to capture is extremely quick, it will likely not be as quick or keep friendly soldiers as secure as a UAS collecting and striking by itself. There are many other considerations, but timeliness and safety are consistently significant and tend to justify the rationale for striking instead of capturing.[25] The perception, however, is that it is just easier.

Therein lies the criticism; the ease of a kinetic UAS action should not nullify targeted individuals' human rights.[26] Unmanned aircraft systems play a significant role in *jus in bello's* principle of discrimination as well. Discrimination centers on two aspects: 1) finding an/the enemy and 2) targeting, either kinetically or non-kinetically, the enemy. As discussed in the previous paragraphs, technology enables both aspects through unparalleled accuracy in collection efforts and weapons delivery methods. In a major combat operation, discriminating between friendly and enemy large force presentations can be easier than doing so in the context of an insurgency like that in which the U.S. is engaged, in Iraq. Even the most precise UAS has difficulty discriminating between a single friendly or enemy individual when, often, the differentiating factor is intention. Many of today's ongoing conflicts are asymmetric in nature and greatly complicate ability to tell enemy from friend, as foes tend to blend into the local community with ease. Rules of Engagement (ROEs) and Laws of Armed Conflict (LOAC) attempt to keep the “missiles on the rail” in situations where differentiation is uncertain. Despite excellent UAS collection capabilities, their operators' interpretations can be incorrect resulting in noncombatant deaths. Israel has executed its UAS strikes against Hamas with mixed results. Recent strikes have killed exponentially more noncombatants than the originally intended targets.[27]

Further exacerbating the discrimination issue is post-strike analysis. ROEs and LOAC force operators to make judicious decisions regarding target validity, but despite careful employment, noncombatant deaths still occur. Errors are responsible for some of those deaths. The enemy, however, helps to exaggerate that perception by altering the scenes after a strike occurs. It is common for an operator to believe with great levels

of surety that the target was valid only to have post-strike analysis on the ground uncover no weapon or indication of hostile intent or action. Near instantaneous media coverage only degrades the situation further. Additionally, adversaries are continually altering their tactics to further blur the line between combatant and noncombatant and make even the most advanced UAS sensors and weapons less effective.

The implications of UAS conduct in war, specifically regarding proportionality and discrimination, significantly affect coalition effectiveness in four distinct ways. First, the ease of striking a target with great accuracy and relative ease could lead coalition members to categorize U.S. use of force as cavalier. When giving the option of choosing between a more ethical but difficult course of action and a morally grey but easier one, other states likely have some doubt as to which option the U.S. may select. True or untrue, this belief severely influences coalition cohesion by undermining critical trust required for any group's unity. When the U.S. suggests its UASs execute a kinetic solution, despite a solid foundation of reasoning and near consensus of coalition members, others will likely view it skeptically. The U.S. must then expend greater effort, time, and resources to prove the already convincing rationale. When a state pushes, especially when it is against a common view, for a UAS kinetic strike instead of a non-kinetic one, other coalition members can begin to question the value that state places on enemy human life and basic human rights. The corollary then becomes about what value that state places on coalition members' lives and rights. Distrust can begin to disintegrate coalition ties.

The second factor that further frays a coalition's bonds is the ambiguity of ROEs that guide UAS employment. The ROEs are not purposely vague. In fact, they attempt

to be very clear for the purposes of keeping all parties on the "correct" side. Changing technology, tactics, techniques, and procedures on both the enemy and coalition side injects ambiguity into the picture. Interpretation differences can morph into feelings of deception and lies, again destroying coalition trust--(need example). The difficulty in finding common interpretations of coalition ROEs creates fear in the different members concerned with “guilt by association.” Guilt or innocence by association is an inherent fact when working inside a coalition. If cavalier UAS employment is a prominent perception within the group, the fear of condemnation for the actions of other members can keep participation minimal or inconsequential. On the other side of the coin is one of the main attractions of a coalition: attributing success to all members. A successful UAS strike that eliminates a top-tier leader of an enemy organization and produces no major second or third order effects, highlights the entire coalition in a good light.

The third effect of UASs on a coalition involves group decision-making. Normally, coming to a consensus within a group are rarely a simple process, especially when key actors are attempting to balance the inherent fragility of group cohesion with their representative interests. The perception of a lesser commitment by a state that commits UASs instead of soldiers also tends to drive wedges in the decision-making process. States that contribute their sons and daughters to the military effort tend to believe that they are accept greater risk and, as such, should have a greater influence in coalition decisions.

Fourth, both the positive and negative moral aspects of UAS employment in coalition warfare permeate deeper than just the immediate forces or leaders on the frontline. UAS conduct in warfare affects the civilian populations, which form the base of

each coalition member state. Coalition members are often on good terms with some of the members but not all. Historical, cultural, and religious aspects are just a few of the factors that can cause dissension within the coalition. UAS kinetic action in war only amplifies an already fragile partnership. It is difficult, at best, to move in a certain direction as a state when that state's civilian population appears to be against it. Government leaders may fear diminishing support will eventually cost them their jobs at best or their lives at worst. The perception of targeted killing by UASs can make a state's population wary of becoming part of a multinational team. The fear of a slippery slope and attribution of those negative effects across the entire group may be too high of a cost to bear.

Furthermore, violent escalation tends to be difficult to stop once it begins. Noncombatant deaths only increase that concern and subsequent disharmony. The linkage then becomes if a state joins a coalition that has UASs, the systems will be used kinetically at some point; violent escalation will require a concomitant increase in the expenditure of a member states' blood and treasure; the kinetic action will lead to targeted killings and noncombatant deaths; and the coalition and individual states will be shrouded in negative perceptions. Civilians may begin to tie joining a coalition in which members have UASs to wanton violent action that needlessly sacrifices civilian lives and ends in a negative perception of the coalition.

Working through the confluence of coalition warfare, UAS employment, and *jus in bello* principles is a complicated task. The moral implications cross military lines into the civilian populace and back and their effects impact both sides. If a coalition is able to sufficiently reconcile the moral complexity of UAS employment and successfully reach

its desired end state for conflict, the coalition must then contend with the equally complex post war aspects.

Jus Post Bellum

JWT and the *jus ad bellum* and *jus in bello* principles have been thoroughly examined and elaborated upon over the course of their lifetime. Recent scholars have noted the lack of and need for greater academic depth in the post war realm. Brian Orend is one of the lead proponents forging the way for *jus post bellum* discussion and principles. There is relative agreement concerning his belief that "the aim of the rules of jus post bellum is to achieve a durable peace by helping the state return to its sovereign pre-conflict situation, if such was a desirable one measured by standards of international law, or by helping the state achieve an improved version of its pre-conflict situation."[28] Unjust post war behavior has the potential to lead to even greater tension between states. Orend contends that the seven guiding *jus post bellum* principles are rights vindication, publicity, discrimination, proportionality, punishment, compensation, and rehabilitation.[29] UAS effects on coalition warfare are most prominent in the rights vindication, discrimination, and rehabilitation, and, thus, this paper will focus on these three principles.

A brief description of these three principles will facilitate a deeper understanding of the role UASs play in post war conduct and the impacts of that on a coalition. Rights vindication springs from the idea of securing those initially violated basic rights that triggered the just war.[30] Things such as the right to life and liberty are examples. The post war settlement should make certain the conflict had a bettering effect.[31] Discrimination is similar to the *jus in bello* principle of the same name. Punitive war termination measures should be reasonably limited from affecting civilians.[32] Actions

should consider the audience and be selective in nature when possible. Rehabilitation pertains to the reform of defective governmental organizations within the antagonistic regime.[33] The spectrum of rehabilitation runs from demilitarization and disarmament to reeducation and retraining.[34]

The main role for UAS in war termination centers more on enforcement of a just settlement than on the development of it, teetering precariously on the edge of maintaining rule of law. Leaders and diplomats ideally use the *jus post bellum* principles as guides to developing a fair war termination settlement, which rights the initial wrongs of the conflict, targets the appropriate audience, and does not seek revenge.

UAS ability to provide oversight, intelligence, and presence can ensure antagonists comply with the terms of the just settlement. First, unmanned aircraft systems' capabilities to loiter overhead and, through their onboard sensors, track the actions of the vanquished enemy allow the confirmation of certain settlement aspects. Whether the requirement is to remove specific weapons from an area, dismantle equipment, or any number of other actions, UASs increase a force's ability to observe and inspect.

Second, UASs in an area of interest can also provide intelligence on enemy actions indicative of a resurgence of hostilities. While similar to the point in the previous paragraph, the difference is substantial. The UAS mission will inherently focus its collection and exploitation priorities. The more focused mission set of UASs specifically tasked with surveillance collection of future hostility indicators will likely have greater detection success.

Despite limited numbers, the perception that UASs are constantly overhead makes presence the third contributing factor of a force's post war conduct. The relative small size and quiet aural signature make it difficult to confirm UAS presence. That uncertainty can force an enemy to take precautions regardless of whether a UAS is actually overhead or not. At a minimum, enemy actions can be impeded and far less effective, while at best, the protective measures necessary to avoid detection can become so burdensome as to preclude the illicit behavior altogether.

UAS employment during war termination affects coalition warfare in several ways. First, in accordance with JWT, a coalition likely embarked upon a just war to counter another's aggression. The mere continued presence of UASs can appear to trample on the very rights the conflict settlement vindicated. Because the average person cannot tell what armament, if any, an airborne unmanned aircraft system is carrying, its mere presence in an overhead orbit can seem aggressive and threatening. That presence can undermine a coalition's peace efforts. Furthermore, if the coalition's perceived intentions are in question, a defeated state may feel it has traded one evil for another. Under JWT, if the state perceives the aggression as gross enough, it may then justly resume hostilities. The coalition then is involved in another undesirable, violent conflict.

Second, there is the issue of sovereignty. JWT states that an aggressive entity calls into question its own right to sovereignty.[35] War termination, however, marks the beginning of the subsequent rehabilitation period. At some point, the vanquished state earns its sovereignty back, but when exactly that occurs can spark coalition discord.

Though military members may no longer be located within the defeated enemy's borders, UAS presence in its national airspace violates that sovereignty.

Third, intelligence collection efforts that are in line with JWT will attempt to discriminate appropriately to facilitate settlement enforcement. The fact, however, is that despite one's best intentions to do so, perfect discrimination is nearly impossible in the collection realm.[36] A UAS overhead an area collecting on retraining compliance, for example, will likely unintentionally target other individuals there as well. Keeping the effects limited to the focus audience is more difficult than expected.

Unmanned aircraft systems' *jus post bellum* effects on a coalition are not solely negative, however. Their ability to provide over watch can help keep an aggressor in check during post war periods. It is conceivable for a state to use war termination as a reprieve during which to rebuild aggressive capability and will. Germany during the interwar period is just one example. UASs can also help inform the coalition of a vanquished state's intentions and more efficiently allocate resources to thwart those intentions. UAS surveillance can also provide international audiences evidence of an aggressive regime's continued defiant behavior. Further proof can strengthen or even expand a coalition. Finally, UASs can free up valuable resources and manpower previously required to enforce settlement measures. Complete reliance on a single platform for enforcement purposes is not prudent; however, UASs can provide some personnel requirement relief to coalition members, making post war efforts more palatable for governments and their people.

Conclusion

The principles of JWT highlight profound moral implications of UAS usage within coalition warfare. Understanding the ethical impact of UASs is a necessity but it is just

the beginning. The joint, interagency, intergovernmental, and multinational operating environment (OE) is no longer the exception; it is the rule. Success in that OE requires more than just acknowledgement of the complexity. It requires thorough comprehension as well as an understanding of a better way forward. Based on the examination above, this paper has four recommendations to avoid breakdowns in coalition cohesion, relationships, and interoperability due to UAS usage.

First, governments who possess UAS technology must make a sincere effort to increase UAS proliferation to partners that do not. Proliferation should include not only the platform and associated weapons systems but also maintenance and operations training. It also should include sharing basic tactics, techniques, and procedures (TTPs). Blanket distribution is unwise, but constantly erring on the conservative side continues to produce a detrimental gap between coalition partners. By bringing a greater number of friendly states into the "UAS fold," members will be able to invest and commit more equitably. Wider proliferation will also help build greater interoperability through the coalition, building greater familiarity as well. Improved understanding will mitigate many of the perception issues incumbent with UAS operation in a coalition.

A UAS proliferation effort entails some risk, however. There is always the chance that the technology finds its way into the wrong hands, or a once friendly partner could change sides. Careful consideration is necessary but not at the expense of much needed coalition cohesion. Balancing a coalition's UAS capability should outweigh the remote chance of a possible adversary obtaining the information.

Second, states who possess UAS technology should participate in regularly held conferences to discuss and decide upon rules of engagement (ROE). Many states

already have advanced UAS technology, but as others acquire the expertise, these conferences will present all with a cooperative forum in which to address concerns and build cohesion prior to going to war together. Proliferation and conferences such as these could easily become part of a standard Theater Strategy Campaign and could facilitate greater relationship building. A key piece of ROE conferences should be discussions regarding the legal ramifications of UAS usage. As the moral landscape changes with UAS TTPs, it is imperative that the legal field adapt as well. Aligning members' views more closely with one another will rectify many of the moral implications associated with a lesser understanding of UAS employment. If alignment is counter-cultural, then actors should strive for cultural relativism, attempting to view the situation from the other's perspective. Open communication among the participants should increase understanding on all sides and keep misperceptions from becoming reality within a coalition.

Building consensus on how best to employ UASs morally among a few members takes time. Adding even more members to the discussion will require even more time and could possibly end in stalemate on some issues. A stalemated conversation occurring in a peacetime environment is still a better situation than one that occurs in the middle of a conflict. Simply knowing where one side stands, despite the level of agreement, can help build some foundation for compromise later.

Third, despite a greater proliferation effort, there will still be coalition members who do not possess UAS technology. It is incumbent upon those that do to increase transparency of their UAS usage policies and procedures. Being more open and proactively sharing what they are doing with their UASs with other coalition members

will help avoid misperceptions. Additionally, if errors occur where noncombatants are accidentally injured, sharing information proactively will pay dividends. Instead of looking like excuse making, a state will be simply confirming what it has already stated as its policy or procedure. Coalition members, knowing the UAS member's stated intentions, policies, and procedures, will believe the error was accidental instead of a moral misjudgment. Coalition members should also levy greater transparency toward their own, host-nation, and adversary civilian populaces. Increased openness on this front will have the same effect as it does on non-UAS coalition members.

Providing increased levels of information is a double-edged sword. The risk is that the information will make coalition efforts less effective and the enemy more effective. The coalition should carefully consider the information it shares outside the bonds of its cooperative effort. The knowledge should be explanatory in nature and generic in character. The intent is to mitigate future misperceptions, not provide the public or enemy with the nuts of bolts of operations. Civilian views that may have had moral shades at one time will become more technically oriented instead.

Fourth, because the media can be a powerful force with which to contend or to use, it is imperative to initiate an extensive, proactive UAS educational campaign. Information should include unclassified capabilities and limitations with the targeted audience being media outlets, government leaders and politicians, and key intergovernmental organizations and their leaders. The information campaign must also include demonstrations with the intent of alleviating some of the mystery around UASs. Again, the drive is education to preclude a tendency of an undereducated populace to ascertain incorrectly the rationale and intentions behind UAS employment.

There is risk of blurring the line between helpful but harmless education initiatives and sensitive information release. Education should be at the layperson level to avoid disclosing information to those that would aim to harm the coalition or its efforts; however, the risk is worth building a working-knowledge level of the disparate leaders who will help shape the future of UAS coalition warfare. Again, proactive measures should sway influential opinions away from UAS actions being morally incorrect and toward them being mechanically erroneous.

This paper has merely scratched the surface of morality with regard to UAS and coalition efforts. As the future of robotic warfare moves toward greater and greater autonomous operations in every domain, several areas will require further exploration. Robotic platform against robotic platform, private contractor use of robotic weapon systems, robotic mercenaries, malfunctioning robotic platforms, and attribution efforts for all the previously listed subjects are just a few of the topics in need of more attention and research.

War and conflict will not likely fade into extinction any time soon. It is, indeed, a human endeavor and as long as man exists, so shall conflict. Unmanned aircraft systems are threatening man's ethical attempt to limit war's destructive power. Though a mechanized and robotic future is foreseeable, it cannot negate the human influence, an influence that is and will continue to be at the heart of conflict. Despite the very real possibility of future conflict being robotic and inundated with moral mines, careful, introspective action can lead a coalition through that hazard-laden field relatively unscathed.

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