Ben Lerner | **UAVs and Force: Current Debates and Future Trends in Technology, Policy and the Law**

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Contents

Executive Summary

This study examines a representative sample of the ongoing legal and policy debates surrounding the United States' use of unmanned aerial vehicles (UAVs) to support or undertake lethal force abroad, particularly with respect to the surveillance and targeting of non-state asymmetric actors. The study also explores technological trends in the development of UAVs for purposes of undertaking force or force-supporting missions, as well as the trajectory of legal and policy developments in response to the use of UAVs, including possible policy consequences of further restricting the use of such platforms.

The commentary contained throughout the study is derived in part from interviews with primary sources—drawn from leading think tanks, human rights organizations, technology companies, and academia—representing a range of opinions on the technological feasibility, legality, and policy advisability of deploying UAVs for lethal force purposes. The study also draws extensively on secondary research on these same questions, from sources across the opinion spectrum.

The study finds that there are significant trends taking place in the development of UAV technology relevant to their use for intelligence-surveillance-reconnaissance (ISR) purposes in support of lethal force, and for the exercise of lethal force itself. The technology trends identified through primary source interviews and secondary source analysis include: [1] a continuing demand for, and development of, UAVs for Intelligence, Surveillance and Reconnaissance (ISR) *and* munitions deployment purposes; [2] the extension of the geographic range of UAVs, particularly in the context of their use aboard aircraft carriers, although obstacles may remain with respect to trade-space issues surrounding payload vs. endurance; [3] UAV designs incorporating greater levels of autonomy, requiring less direct remote piloting by humans; [4] increasing precision and maneuverability, through innovations such as smaller, lighter-weight UAVs with correspondingly smaller munitions, as well as interest in the use of directed energy as part of the UAV platform; and [5] increasing proliferation of UAV technology to both state and non-state actors, with potential for "dual-use" capabilities between ISR and weapons deployment.

The legal section of this study begins with a survey of analysis as to whether American UAV strikes abroad are in compliance with international law, specifically the *jus ad bellum* (the laws governing when a nation may resort to war) and *jus in bello* (the laws governing how a nation must conduct itself during war). In the section on compliance with *jus ad bellum*, President Obama, then-State Department Legal Adviser Harold Koh, then-Assistant to the President for Homeland Security and Counterterrorism John Brennan, and Attorney General Eric Holder, all make the case that the Obama administration's use of UAVs abroad complies with the *jus ad bellum*, asserting that UAV strikes are consistent with the right to self-defense under international law, that the force being used is both necessary and proportionate, and that the use of UAVs is also justified by the imminent threat that terrorist organizations pose to American national security. While some experts support the Obama administration's arguments in this regard, others register disagreement, asserting that the administration is changing traditional understanding of the concept of "imminence" in *jus ad bellum*, and that UAV strikes in Pakistan especially are not legal acts of self-defense because they are not being undertaken in response to an "imminent" threat.

Other points of contention are also identified within the section on compliance with *jus ad bellum.* Scholars disagree on whether a state has a

legal right to exercise self-defense against non-state actors inside the territory of a state not having carried out the attack itself. Additionally, scholars also debate the extent to which the arguably ambiguous nature of Pakistan's consent to UAV strikes on its territory should have any bearing on whether such strikes are legal.

With respect to whether the advent of UAV technology will affect the development of *jus ad bellum,* the study identifies and explores three outlooks on the development of *jus ad bellum* trends relative to UAVs: [1] the view that *jus ad bellum* needs to be adjusted to account for UAVs in a way that would *temper* their use for lethal force; [2] the view that current *jus ad bellum* principles should enable UAV use (or alternatively, temper UAV use); and [3] the view that current *jus ad bellum* principles are inadequate to deal with the realities of terrorism and need to be adjusted to better address the threat.

After examining the question of compliance with *jus ad bellum* and discussing possible trends in this area, the study moves on to the debate over whether the United States' use of UAVs abroad is part of an "armed conflict" that therefore triggers application of the "law of war" (*jus in bello*) rather than the laws of peacetime. While contemporary understanding has been that *jus in bello* applies to international armed conflict (armed conflict between states) irrespective of the extent and level of hostilities, customary international law holds that *jus in bello* only applies to non-international armed conflict (conflict between a state and a non-state actor) once a certain threshold of violence has been reached. The United States government has asserted repeatedly that the United States is in an armed conflict with al Qaeda that is not geographically limited, and therefore on solid legal ground in deploying UAVs for lethal force outside of Afghanistan. While this view finds support among some experts, others disagree—asserting for example that terrorism is a crime, rather than an armed conflict, or that combatants cannot be properly identified once the fighting moves off of a so-called "hot" battlefield.

The discussion of whether the United States is in an "armed conflict" lays the foundation for the question of whether the United States' use of UAVs is in compliance with *jus in bello* within that armed conflict. The components of *jus in bello* include the concepts of [1] "necessity", the obligation to use the force required to accomplish the mission at hand; [2] "distinction", the requirement to distinguish combatants from civilians during wartime; [3] "proportionality", the obligation to balance the military advantage to be gained from attacking a target against the projected loss of civilian life or property resulting from the attack; and [4] "humanity", the requirement of military forces not to inflict unnecessary suffering, including upon opposing military forces.

The Obama administration has repeatedly defended UAV strikes as complying with the *jus in bello* components described above. Some experts agree with the administration's defense of UAV strikes in this regard—noting, for example, that UAVs are designed to be more precise and therefore ensure greater compliance with *jus in bello* norms like distinction and proportionality, and that the laws of war may actually *require* the use of UAVs given their precise nature. Other experts, however, assert that UAV strikes are not in compliance with *jus in bello*—arguing, for example, that the administration's introduction of a "co-belligerency" concept to a non-international armed conflict increases the likelihood that the administration is not adequately distinguishing between combatants and civilians, and that such lack of distinction is likely throwing off the proportionality calculus at the expense of civilians on the ground.

On the question of whether advancements in UAV technology will yield trends in the development of *jus in bello* principles, scholars in this study focus primarily on [1] the effect of UAV technology advancement on requirements concerning civilian casualties; and [2] the effect of the increasing autonomy of UAVs on *jus in bello* compliance.

The study notes a significant speech given by President Obama at National Defense University in May of 2013, in which he stated that beyond Afghanistan, "before any [UAV] strike is taken, there must be near-certainty that no civilians will be killed or injured—the highest standard we can set." Some experts argue that President Obama's standard goes beyond what international law on proportionality has traditionally been understood to require, though it remains to be seen as to what effect his standard will have on proportionality expectations in the future. Aside from President Obama's NDU address, however, the advances in UAV technologies are likely to catalyze an ever-increasing expectation that, commensurate with the growth in precision and other capabilities, there should be correspondingly fewer civilian casualties resulting from UAV strikes. Additionally, the significant advances in the autonomy of UAVs has prompted some experts to call for international law prohibiting the development of "fully autonomous" weapons, capable of selecting targets without any human involvement in the actual targeting decisions.

With respect to domestic laws governing the use of force abroad, the study examines ongoing debates concerning the 2001 Authorization for the Use of Military Force (AUMF) and the War Powers Resolution, followed by an overview of the various views concerning the need to establish a judicial entity (referred to by some as a "drone court") to provide judicial review prior to or after the execution of a UAV strike.

While some critics of the AUMF view it and subsequent government interpretations of it—authorizing force against al Qaeda and its "associated forces"—as violating international law in some respects, others have also asserted that the use of UAVs against various terrorist targets has violated the terms of the AUMF itself, extending strikes to targets beyond what the AUMF envisions. Some experts, however, have argued that the AUMF does not limit American forces to the pursuit of al Qaeda solely within Afghanistan, and that therefore UAV strikes against such targets outside Afghanistan are permissible. Significantly, there are indications that Congress may soon debate, and possibly re-write, the AUMF in order to address questions that have been raised about how the Obama administration has applied it in the context of UAVs, among other reasons.

Aside from disagreements over the use of UAVs in the specific context of the 2001 AUMF, a debate has also arisen as to the necessity for congressional authorization at all when the United States is taking military action in the form of UAVs. This particular debate has centered on whether the President is required to obtain congressional authorization for the use of force, per the War Powers Resolution, when such force consists of the deployment of UAVs. The Obama administration previously argued, in the context of the use of force in Libya in 2011, that the use of UAVs eliminated the need for ground troops and did not risk US casualties, and that therefore the sorts of "hostilities" contemplated by the War Powers Resolution were not at issue under these circumstances. Some experts, however, reject this view, arguing that such reasoning would lead to the conclusion that even of the use of nuclear weapons—which do not involve ground troops and do not risk US casualties—would not trigger the War Powers Resolution, and that in any event, the sustained bombing of targets by UAVs

is consistent with a common sense definition of "hostilities".

On the question of whether a "drone court" should be established, the study identifies and explores three categories of opinion: [1] Analysts who support the creation of a "drone court" because they believe such a court would provide necessary legal review and authorization of targeted killings *ex ante* (prior to a targeted killing taking place); [2] Analysts who oppose the creation of a "drone court" as an *ex ante* entity because of the belief that it would not provide the necessary oversight of the Executive Branch; and [3] Analysts who oppose the creation of such a court because they believe that judges should have no role in targeting decisions.

After concluding the survey of major legal debates and trends regarding the use of UAVs for lethal force abroad, the study moves on to an examination of the debates on the *policy advisability* of UAV strikes, the policy trends in this area, and possible policy ramifications of further restricting UAV strikes.

Although UAV strikes against terrorist targets have eliminated leadership and other key figures in al Qaeda and its associated forces, while offering other significant benefits for the United States with respect to combating terrorist organizations, three common policy objections to UAV strikes have persisted: [1] To the extent that UAV strikes result in civilian casualties, such strikes create anti-American resentment on the ground that ultimately adds recruits to the ranks of, or otherwise empowers, terrorist organizations, and create global resentment resulting in reduced support for US counter-terrorism efforts; [2] The use of UAVs creates a dynamic resulting in the "de-humanization" of warfare, both in terms of the UAV operator being too far removed from the lethal act, and in terms of the government's willingness to resort to force via UAVs without the national deliberations on force that might otherwise ensue if troops were to be put in harm's way; and [3] As other nations acquire UAVs, the manner in which the United States has deployed them for lethal force is setting a bad precedent for other nations to follow, in way that run counter to American interests.

There is significant debate over whether UAV strikes truly create a localized or global resentment that is counterproductive to US counterterrorism efforts—often referred to as "blowback"—and if so, whether such developments outweigh the counterterrorism benefits that UAV strikes offer. Some analysts, for example, assert that to the extent that UAV strikes result in some civilian casualties, the strikes radicalize individuals into joining the ranks of al Qaeda, offer propaganda opportunities to al Qaeda, or create disapproval amongst countries on which we rely for counterterrorism cooperation, all of which is ultimately counterproductive. Other analysts, however, argue for example [1] that the data on "blowback" is inconclusive in that anger on the ground directed at UAV strikes does not definitively translate into recruitment for terrorist organizations; [2] that even if some individuals are incentivized to join al Qaeda, it is likely at the "foot-soldier" level and is therefore outweighed by the elimination of highly-skilled terrorist operatives; and [3] that undue focus on "blowback" creates a sort of strategic paralysis, tending to counsel against any action that may cause harm—an impractical and self-defeating method of warfare.

Experts also debate whether the remote piloting of UAVs, and the removal of the pilots from the physical danger that warfighters might otherwise face in combat, creates a problematic "dehumanization" of warfare at the tactical and policy levels. At the tactical level, some scholars allege that the lethal use of UAVs lends itself to a "videogame mentality" from the UAV operator's perspective, whereby the likelihood of civilian

casualties actually increases as the result of a level of psychological "removal" of the pilot from the battlefield, while others argue that not only are UAV operators not as psychologically removed from the battlefield as often portrayed, but also that there are plenty of other weapons platforms that remove the operator from the actual territory on which the targets are struck, making the UAV no different from other platforms in this regard.

At the policy level, some experts have raised concerns that the ability to send UAVs to undertake lethal force will make governments like that of the United States more inclined to resort to force without what would otherwise be a publicly deliberative process on whether force should be used in the first place. Others, however, argue that the advent of UAV technology will not make the United States any more likely to use force than it has in the past, that in fact the use of UAVs actually gives policymakers more options for addressing conflict and possibly avoiding larger conflicts, or that as a practical matter, we only use UAVs in countries whose governments are already working with the United States on some level.

A third point of contention on the policy advisability of UAV strikes is that as other countries continue to acquire UAV capabilities, those countries will look to US practice on using UAVs to target terrorists abroad to determine, and justify, their own operations—operations which, in some instances, the United States would perhaps disagree. Some experts are skeptical of this concern, however, noting that other nations will continue to be guided by their own interests rather than America's example, that the United States is already setting appropriate precedent in this area, and that countries contemplating whether to launch UAV strikes will still have to contemplate the political and diplomatic risks of such action before doing so.

After exploring the most prominent policy debates on the use of UAVs for lethal force, this study examines possible policy trends in this area. Some of those trends (either projected, or called for, by policy experts) include: [1] a projection for increasing scrutiny of UAV use in the lethal force context, followed by the public's eventual recognition of the national security benefits that UAVs offer; [2] the call for some sort of normative framework—whether in the form of a treaty or something less binding—in order to address proliferation concerns; [3] a projection that UAVs will prompt a new paradigm for the use of force that falls short of fully formed "armed conflict", perhaps requiring new rules; and [4] the call for the United States to be held accountable for when other nations, using intelligence provided to them by American UAVs, carry out force that results in civilian casualties, even when the United States itself does not directly attack any targets.

Finally, this study looks at expert opinion on the policy ramifications of placing further restrictions on the use of UAVs for lethal force. There is concern that curtailing or eliminating UAV use would be a major setback for American national security and the ability of the US government to protect the nation from terrorist threats, and also that such a decision would actually endanger civilians on the ground by exposing them to more indiscriminate violence, either from terrorist organizations or from our allies who would feel compelled to intensify combat against such forces absent our UAV support. There is also concern that the establishment of a "drone court" would effectively end the UAV program because such judicial intervention would be institutionally unable to keep pace with the fleeting nature of targeting opportunities.

The study concludes with some observations that UAV use is likely to continue to appeal to the United States government as a warfighting

and intelligence tool, given [1] the continued rise of non-state terrorist actors in difficult-to-access parts of the world, as demonstrated for example by al-Qaeda affiliate al-Shabaab's September 2013 assault on a Kenya shopping mall, resulting in scores of civilians killed; and [2] the relatively lower costs of UAV operations, as asserted by some analysts, as compared to other options—an important consideration in the current budget-constrained sequestration environment. Additionally, the study observes that further analysis may be required regarding UAVs as an increasingly prominent feature of American defense posture towards conventional state actors such as China.

By design and by necessity, this study is not comprehensive and does not fully capture the wide range of analysis that has been done on these subjects. Rather, it is intended as a point of departure for policymakers, public policy analysts, and others who will have to grapple with what effect advances in unmanned aerial technology will have, or should have, on how the United States defends itself and its national interests.

Readers should also be aware that this study deliberately did *not* endeavor to analyze ongoing debates or trends in the area of domestic use of UAVs (i.e. border security, search-and-rescue, etc.). Additionally, this study did *not* include analysis of the debate regarding the use of UAVs to carry out lethal force abroad against a terrorist target who is also an *American citizen*—this study focused solely on the use of UAVs to target *foreign national terrorists* abroad. Though domestic use of UAVs and the issue of targeting American citizens abroad are both prominent subjects of current debates, they are beyond the scope of discussion contained in the pages that follow.

A Note on Terminology

The term "unmanned aerial vehicle" (or "UAV") is not the only term used to describe the platforms under discussion in this study. Many analysts, media sources, and others use the word "drones", though experts from industry as well as the military point out that this is not a technically accurate term—as Lt. Gen. David Deptula, USAF (Ret.) writes, "In military parlance, a 'drone' is a flying target."

During the course of researching for this study, we found that the term "Remotely Piloted Aircraft" (or "RPA"), while technically accurate, does not appear to be widely used outside the United States military.

For these reasons, we use the term "unmanned aerial vehicle" or "UAV" (a widely used term that is more technically accurate than 'drone') throughout this study, except when citing interviewees or work written by others that uses a different term to describe these platforms.

Introduction

The attacks of September 11th, 2001, brought home to Americans the devastating effect with which asymmetric non-state actors—belligerents bent on and capable of waging war using unconventional tactics, but not necessarily belonging to an identifiable nation-state's armed forces—can inflict massive casualties and infrastructure damage onto a target population. In the years following those attacks, the United States has continued to combat asymmetric belligerents in the form of al Qaeda and its affiliates, and in doing so continues to face the challenges associated with fighting an enemy that conforms to neither the rules nor conventional structure of warfighting.

Al Qaeda and its affiliates do not comprise the armed forces of any nation-state, and therefore do not have identifiable physical resources or command-and-control infrastructure, the elimination of which would typically mark the defeat of conventional adversaries. Al Qaeda currently also does not operate on open battlefields where opposing armies have traditionally faced one another en masse, but rather is a widely-dispersed enemy, operating throughout remote, difficult-to-access locations, some of which are not under the functional control of the country in which they are located. There is no al Qaeda "headquarters" or base-camp functioning as an extension of or under the aegis of a nation-state—rather, al Qaeda is operating in the remote caves of the Waziristan region of Pakistan, or the southern provinces of Yemen, or other such areas throughout the world, each nominally controlled by a government that in reality is either unwilling or unable to address the threat of al Qaeda from within its borders.

Adding to the complexity of confronting an asymmetric belligerent such as al Qaeda is the fact that al Qaeda (and indeed, numerous terrorist organizations and their state sponsors over the past several decades) quite deliberately does not adhere to the laws of armed conflict, as understood through both the Geneva Conventions and customary international law. Al Qaeda and its affiliates—who do not wear "uniforms" by which they can be readily identified—deliberately target civilians directly, and have also made it their practice to intentionally hide among or co-mingle with civilians in order either to a) dissuade the United States from firing on their positions for fear of civilian casualties; or b) create a propaganda opportunity for themselves by blaming the United States for any resulting civilian casualties in the event of a strike.

The diffuse nature of the terrorist infrastructure, the dispersion of terrorists across inaccessible locations, and the unconventional tactics they deploy to the detriment of civilians on the ground, have over time made sending troops into such areas to capture or eliminate individual targets a less attractive option for policymakers. President Obama articulated his own view of this challenge in his speech at National Defense University in May of 2013:

> "In some of these places—such as parts of Somalia and Yemen—the state only has the most tenuous reach into the territory. In other cases, the state lacks the capacity or will to take action. And it's also not possible for America to simply deploy a team of Special Forces to capture every terrorist. Even when such an approach may be possible, there are places where it would pose profound risks to our troops and local civilians—where a terrorist compound can-

> not be breached without triggering a firefight with surrounding tribal communities, for example, that pose no threat to us; times when putting U.S. boots on the ground may trigger a major international crisis."[1]

In recent years, a major feature of America's answer to the question of how to target terrorists overseas—taking into account their structure, location, tactics, and the risks associated with sending in ground forces—has been the deployment of unmanned aerial vehicles (UAVs) (referred to in the U.S. Air Force as a "remotely piloted aircraft", and commonly throughout much of the general public—erroneously, some have argued—as "drones"[2]) to gather intelligence on, and eliminate, terrorist operatives.

Given the growing network of terrorist organizations throughout the world, and the proliferation of UAV technology globally, there are clear indications that UAVs are on a trajectory to become a major feature of defense and counter-terrorism strategy for the United States and other nations. But these developments are not without controversy or criticism, as arguments continue to be made, and efforts undertaken, to restrict the use of UAVs in the defense/intelligence context on both legal and policy grounds.

Using interviews with primary sources, as well as extensive secondary research, this study endeavors to provide a "snapshot" of the ongoing debate over the legality and advisability of the use of UAVs to target terrorists abroad, and also explore the trends in the technology, law and policy surrounding their use for this purpose—including some of the possible policy ramifications of restricting UAV use. It should be noted at the outset that this study does *not* include discussion of situations where the targeted terrorist is an American citizen—the study only analyzes situations in which those targeted by UAV strikes are foreign nationals.

Technology

The United States began experimenting with pre-aviation UAVs as far back as the Civil War, with World Wars I and II seeing further experimentation in this area with limited success.[3] As technology developed, UAVs were deployed over North Vietnam in large numbers for reconnaissance missions, and further deployed in Operation Desert Storm as well as over the skies of Bosnia in the 1990s, in the form of the Predator.[4] The first armed modern UAVs were flown in Afghanistan in 2001, combining surveillance and attack capabilities.[5] Today, the United States continues to deploy Predator and Reaper UAVs against targets in Afghanistan, Pakistan, and Yemen.

In the aftermath of the September 11th attacks, the United States Congress passed the 2001 Authorization of the Use of Military Force (AUMF), authorizing the President to "use all necessary and appropriate force against those nations, organizations, or persons he determines planned, authorized, committed, or aided" those attacks, "in order to prevent any future acts of international terrorism against the United States by such nations, organizations or persons."[6] Significantly, as legal analysts Robert Chesney, Jack Goldsmith, Matthew Waxman and Benjamin Wittes observe: "…in the years since the resolution took effect, Congress, two presidential administrations, and the lower federal courts have interpreted the

'force' authorized by the AUMF to extend to members or substantial supporters of the Taliban and al Qaeda, and associated forces."[7]

Relying on the AUMF, President George W. Bush would go on to deploy ground forces in Afghanistan in order to eliminate al Qaeda and its Taliban supporters as threats to national security. In addition to ground forces in Afghanistan, President Bush also made use of UAVs to neutralize al Qaeda, Taliban and related threats in Afghanistan (beginning in 2001[8]) as well as in neighboring Pakistan (beginning in 2004), primarily in the border regions of North and South Waziristan.[9]

President Obama, during his administration's first term, undertook a substantial increase in the use of UAV strikes, with a major escalation of such strikes in Pakistan beginning in 2009 (reaching a high point of 122 strikes just for 2010—nearly a 260% increase over the total number of UAV strikes in Pakistan between 2004 and the opening days of 2009[10]), and an expansion of such strikes into Yemen and Somalia in earnest beginning in 2011[11]. Additionally, Coalition forces initiated 1,015 UAV strikes in Afghanistan from 2008 to October 2012.[12]

UAV strikes have eliminated al Qaeda leadership and operatives, and that of al Qaeda's associated forces. Notable examples include al Qaeda's then-deputy leader, Abu Yahya al-Libi[13]; then-deputy leader of the Pakistan Taliban, Wali ur-Rehman[14]; al Qaeda's then-chief military commander, Ilyas Kashmiri[15]; and many others. Of the 3,300 al Qaeda, Taliban and related jihadist organization members eliminated by UAV strikes in Pakistan and Yemen, 50 of them were senior al Qaeda and Taliban leaders who cannot be easily replaced.[16] As Kenneth Anderson of American University's Washington College of Law has observed:

> "Drone warfare is just one element of overall strategy, but it has a clear utility disrupting terrorist leadership. It makes the planning and execution of complex plots difficult if only because it is hard to plan for years down the road if you have some reason to think you will be struck down by a drone but have no idea when. The unpredictability and terrifying anticipation of sudden attack, which terrorists have acknowledged in communications, have a significant impact on planning and organizational effectiveness."[17]

In terms of the mechanics of eliminating terrorist targets, today's Predator UAV can loiter miles above a target for up to 24 hours, in order to provide detailed images to the operators on the ground and enable those operators to deliver a lethal strike from the UAV, or deliver the "firing solution" (wind speed, direction, etc.) to other aircraft or ground forces who can then fire the lethal shot—all without risking the life of a human pilot.[18]

The lethal shot, if delivered, has an extremely high accuracy rate relative to other weapons. As Lt. Gen. David Deptula, USAF (Ret.), the first general in charge of Air Force Intelligence, Surveillance, and Reconnaissance observes:

> "How can I argue that RPA are the most precise means of employing force in a way that reduces collateral damage and minimizes casualties? The accuracy of weapons employed from a RPA is nominally less than 10 feet. The accuracy of a 155mm howitzer is around 1,000 feet, and mortar accuracy ranges from 200 to 800 feet."[19]

While there is no human pilot inside the aircraft itself, the "unmanned" aerial vehicle is actually operated by a large crew on the ground—as Lt. Gen. Deptula notes: "It takes over 200 people to operate a MQ-1 Predator or MQ-9 Reaper RPA orbit for 24 hours."[20] The crew operates from a base that can be local near the theater of operations, or within the United States, thousands of miles away from the actual theater.[21]

Dr. Steven Bucci, who is the Director of the Douglas and Sarah Allison Center for Foreign Policy Studies at the Heritage Foundation, and previously served as defense attaché to Albania in the 1990s as well as military assistant to Secretary of Defense Donald Rumsfeld, further describes the advantages of UAVs on the battlefield:

> "The main advantage of using a UAV versus a manned aircraft is its ability to loiter, to stay on station for longer periods of time because there's nobody in it. You can just swap out the guys operating a joystick back home as they get fatigued, and they can fly for roughly thirty hours now as far as the Predator—some of the bigger UAVs, like the Global Hawk, fly even longer than that. It's just a fuel issue. They not only can loiter for a long time, but they fly slowly, and they have very low radar signature, because they are kind of narrow.
>
> They're big—the Predator is bigger than a Piper Cub. So it's as big as a full size airplane. Its wingspan is wider than a Piper Cub. But their narrowness allows them to get in places and stay there, even if there is an air threat that would potentially spot another kind of aircraft. The main advantage is that there are no humans in them, so if they get shot down, we lose a really expensive piece of equipment that costs a little over a million dollars each, but that's [one way] cheaper than a manned aircraft and there are no pilots at risk."[22]

Some analysts have asserted that these features of armed UAVs have "revolutionized" warfare:

> "We believe the next few decades will be dominated by advancements in software and hardware (cyber and robotics, including drones) just as the last decade was dominated by counterinsurgency. We also believe that historians will look back and see advancements in cyberwarfare and robotics as the first two revolutions in military affairs of the 21st century…"
>
> "Just as aircraft carriers allowed naval battles to extend their strike distance to the point of aircraft versus aircraft warfare, drones are increasing the strike distance of the military. Nanorobots will further increase the ability to deal precise damage. Drones are often the preferred choice of policymakers because they place no American lives at risk…"
>
> "…Weaponized drones are far less expensive than manned jets. Drone costs will continue to fall and their capabilities will continue to increase as robotics technology advances. Why buy the costly F-35 fighter jet when the military can instead buy a fleet of weaponized drones?"[23]

Having explored the context in which the United States has deployed UAV technology, and the advantages it brings to the present conflict, the question becomes: what does the future hold for this technology?

ISR vs. Weaponization

Since President Obama gave his National Defense University speech in May of 2013, which he used in part to articulate his intent to impose tighter restrictions on UAV strikes[24], there has been some speculation that there would be a more robust turn, both in the military and civilian arenas, to the use of UAVs for Intelligence, Surveillance, and Reconnaissance (ISR) applications and away from the deployment of armed UAVs.

As *Politico* reported shortly after the speech:

> "The speech drew an important distinction: Obama put no limits on the use of drones for surveillance, as the U.S. is believed to conduct on Iran's nuclear program. Rather, Obama's order only covers the sort of targeted killings in Pakistan, Yemen, Somalia and elsewhere that have drawn so much controversy from native populations and many liberals in the U.S."[25]

Some notable analysts have concurred with this outlook for armed UAVs. As *Defense News* observed in June, 2013:

> "If the administration's actions continue to match the president's words about tightened standards for aerial drone strikes, the demand for new General Atomics-built MQ-9 Reaper unmanned aircraft and other armed drones could slow, an analyst said."
>
> 'President Obama's speech is the latest indication that demand for unmanned aircraft will weaken in the years ahead,' said Loren Thompson, Lexington Institute COO and an industry consultant. 'Overseas wars are winding down, the military has hundreds of high-end drones in inventory, and now the president says he will tighten up on when they can be used in lethal missions.'"[26]

However, the Aerospace Industries Association (AIA) had a different response to the speech. As *Defense News* went on to report:

> Industry officials and other analysts, however, said Obama's revised drone-strike policy won't slow the demand for armed and unarmed remotely controlled combat systems.
>
> 'The growth of unmanned systems for military and civil use is projected to continue through the next decade,' the Aerospace Industries Association (AIA) said in a recent report. 'It is estimated that [unmanned systems] spending will almost double over the next decade, from $6.6 billion to $11.4 billion on an annual basis, and the segment is expected to generate $89 billion in the next 10 years.'
>
> In the wake of Obama's speech, the defense/aerospace lobbying group is sticking by that forecast.
>
> '[Obama's position] shouldn't have an impact on the [unmanned systems] market because it really doesn't affect the requirement for a strike capability or the availability of assets to carry out those missions,' Dan Stohr, an AIA spokesman, said on May 30.[27] [*Note:* brackets in original]

To be sure, there continue to be substantial developments in the ISR area for UAVs. David Bither, Managing Director at ForwardTrace, LLC, a company engaged in remote sensing and situational intelligence, noted in a recent interview:

> "Others are catching up, but I think the United States is still leading in terms of ISR data acquisition in that whole multi-INT, meaning how do you view sensors as a federated network? Not just discrete platforms. Meaning: how do you orchestrate the collection, command and control of a whole network, almost a netted approach to unmanned systems? That's kind of the next phase of UAV technology. People tend to look at the UAV and they look at a picture of the Predator and they go, okay, that's a UAV, when really it's just a truck. Whether it's in ISR mode, especially in an ISR mode, it's really the data that's important."
>
> "So instead of thinking of it as a discrete node, people are very interested in the question of how do we talk to, and collect off of, concurrently satellized UAV fixed wing, and bring the data in and fuse it? So ISR data acquisition for UAVs or involving UAVs, I think there's a lot of money being spent on that…"[28]

Additionally, as Lt. Gen. David Deptula, USAF (Ret.) and Prof. Kenneth Anderson of American University's Washington College of Law each noted in separate interviews with this author, ISR constitutes ninety-nine percent of the missions for which UAVs are currently deployed.[29]

At the same time, ongoing developments in weaponized UAV technology, some of which have reached significant milestones since President Obama's National Defense University address, track with Stohr's view that armed UAVs are not leaving the picture. Though ISR will undoubtedly be a major focus of UAV development in the future, the technology of armed UAVs continues to evolve, both in terms of its capabilities and its dispersion worldwide.

Reach

With respect to relatively larger and heavier UAVs, the United States Navy is actively working to develop UAV capabilities that will substantially extend the Navy's reach globally. In August 2013, the Navy awarded four contracts for the development of competing designs for its proposed Unmanned Carrier Launched Airborne Surveillance and Strike (UCLASS) Air Vehicle.[30] In the weeks prior to the awarding of the contracts, analyst David Axe noted some details of the Navy's specifications as disclosed by the U.S. Naval Institute, and their implications:

> "The U.S. Navy is working on a radar-evading, armed, jet-propelled, highly autonomous drone warplane able to take off of and land on the pitching deck of a nuclear-powered aircraft carrier as early as 2018."
>
> "Known by the ungainly moniker UCLASS—that stands for "Unmanned Carrier-Launched Airborne Surveillance and Strike—the new drone will be the first pilotless warplane with the same bombing abilities as today's manned jet fighters…"

> "…The new killer drone must be able to fly 2,000 miles without in-air refueling in a "lightly contested" environment—that is, against modest enemy defenses—and destroy a target on land or sea using two 500-pound GPS-guided bombs."
>
> "By comparison, the Super Hornet can carry 4,000 pounds worth of bombs plus self-defense missiles only 500 miles without refueling, but is able to fight its way through heavily contested air space. The F-35C also carries two tons of weapons plus missiles but can fly 600 miles on internal fuel *and* through heavy defenses."
>
> "In short, the UCLASS will more than triple the striking range of the carrier more cheaply than current planes—although with fewer bombs and with less ability to survive against a determined foe."
>
> "Plus the new killer drone will be designed to loiter, in contrast to manned planes whose pilots wear out after only a few hours' flying. UCLASS will be able to throttle back and slowly orbit at altitude, keeping watch for enemy forces for at least 12 hours at a time before refueling either back at the ship or from an aerial tanker."[31]

The awarding of these Navy contracts was preceded by the successful completion of test flights of UAVs off of, and later onto, aircraft carriers. The Northrop Grumman X-47B Unmanned Combat Air System Demonstration (UCAS-D) program produced test aircraft, one of which was launched from a carrier in May of 2013, the other successfully landed on a carrier in July.[32] As one analyst observed in response to the test flights:

> "The landing [of] the fighter-jet sized drone, which is larger than the Predator drones common in Afghanistan, Pakistan, and Yemen, represents a watershed moment in the wielding of unmanned aerial vehicles…"
>
> "...[T]he rise of drone warfare has led the U.S. to create secret bases in remote parts of the world from which they can launch and recover the often top-secret aircraft."
>
> "Today, that all changed. Today, the U.S. showed that it can tether the clandestine nature of the drones to the power projection ability of the largest Navy in the world."[33]

Some observers have expressed caveats as to these carrier developments. David Bither of Forward-Trace comments:

> "With UAVs, trade-space is a more dominant question mark—everything is a question of trade space. If you have a mission that requires great endurance, you cannot take much payload on a UAV because a UAV, if you're talking about an MQ-9, has to create its own lift, so you have to trade one for another—payload for endurance. It's not as if you have a B-52 or a C-17 – something where you can have both endurance and payload. The physics of putting heavy payloads on an MQ-9 won't work because MQ-9s have created their own lift—they are smaller and stealthier. That trade-space reality dictates that you either have to give up endurance or payload, which means for a Predator, you can have maybe a sensor, an image camera plus a missile. But you cannot put multiple sensors on there, which would make it more accurate, and then have the endurance, because of the weight."

> "…The ability to base a UAV off of a carrier would expand the application in the area where the UAV would be operationalized. So while basing a UAV off of a carrier opens up a lot more area as far as where UAVs could be used, it does not change the trade-space reality. The question is: What will the UAV actually be used for? When the Navy says it is going to put huge payloads on these, my response is they will have to build something that looks like an F-111, just to get the necessary lift. However, if the mission is a Predator/MQ-9 type of mission, then in that regard the carrier basing allows you to project and use the UAVs on missions that they could not undertake before, because of the limits of the range. But the range of missions is the same. It still comes down to the trade space—X amount of hours vs. X amount of payload."[34]

Bither goes on to note, however, that UAV developers are attempting to overcome the challenges of heavier payloads and their effects on UAV endurance:

> "There is a lot of money being spent on…the weakness in the chainmail, if you will, of UAVs: endurance and the ability, or lack of ability, to have a robust payload. The Department of Defense labs and industry are putting a lot of money into the issue of how do we use different materials, different designs for platforms to gain greater endurance, different technologies."[35]

Importantly, Kenneth Anderson of American University points out that the recent developments with respect to UAVs and aircraft carriers speaks less to the use of UAVs against asymmetric actors and more to UAVs in conventional wars of the future:

> "The automated UAV carrier landings are much more about conventional warfare against states, not non-state terrorist groups. We're laying the groundwork for carrier-based drones. What kind of drones? It might be several decades down the road, but some knowledgeable people believe we will have fighter aircraft that are unmanned, fighter aircraft for fighting other aircraft. These might start out as remotely piloted drones, but they are likely to become more and more automated, as the aircraft has to be able to move and respond to other aircraft or threats such as missiles at speeds much faster than humans can do. Someday, perhaps, a genuinely autonomous machine, but that is still science fiction—but unmanned jet fighters that are partly remotely piloted but in which many crucial activities have been highly automated, yes, I think that is on the way. The strategic drivers toward such technologies, however, will not be non-state actor terrorist groups, for whom surveillance by slow-moving, lengthy loiter times is the single most important mission, but the threats of other states' highly sophisticated, highly automated systems—the attack against your ship, your aircraft comes faster than a human can react, and so defensive systems have to be automated. The adversaries, however, are other states and their advanced technologies. Drones launched off carriers become an important part of the state-to-state conventional warfare mix. Drones in a highly automated form—not truly autonomous, because they are integrated with a human pilot sitting remotely, but highly automated—whether on carriers or elsewhere, become the new fighter aircraft. So drones launched off a carrier might be developed for counterterrorism missions against non-state groups hiding somewhere, sure. But the most important function for carrier-based drones in the future is the development of automated drone technologies to stay ahead of a state adversary's methods of attack that get faster, more dispersed (think: 200 hundred tiny missiles all coming from slightly different angles at once). Humans can't react quickly enough. Today, though, drones have an-

> other purpose completely. We use drones 99.9% for surveillance and intelligence gathering—well under 1% is about firing a weapon. But these surveillance drones used against terrorist adversaries or insurgent fighters—they don't have to worry about engaging with air defense systems, against which they are completely vulnerable."[36]

Autonomy

As Prof. Anderson discusses above, one of the most significant features of the X-47B carrier landing is the fact that the UAV accomplished this landing autonomously. As Navy program manager Rear Adm. Mat Winter noted: "We didn't have someone ... with a stick and throttle and rudder to fly this thing…We have automated routines and algorithms."[37]

Peter W. Singer of the Brookings Institution, author of *Wired for War: The Robotics Revolution and Conflict in the 21st Century*, has commented on the extent to which UAVs are becoming increasingly autonomous in their design:

> "Consider Northrop Grumman's X-47 UCAS, a jet-powered, stealthy plane testing out in Maryland right now; or the Taranis, being tested in Australia by BAE; or the Blue Shark, rumored to be in development by the Chinese firm AVIC. In some ways, these unmanned combat planes represent traditional advances in weapons tech: They are designed to fly faster and further than our current generation of strike drones, and to better evade enemy defenses. But these planes are also very different than their predecessors: They are smarter and more autonomous. They are designed to take off and land on their own, fly mission sets on their own, refuel in the air on their own, and penetrate enemy air defenses on their own. The Taranis even has modules designed to allow it to select its own targets."[38]

Lt. Gen. David Deptula, USAF (Ret.), comments on the trajectory of autonomy for UAVs:

> "I have been telling people for years that as RPA become more autonomous, policy issues will arise considerably. Today they are essentially remotely piloted aircraft...ergo RPA, where there is a pilot, but he/she is simply remote from the aircraft. When we achieve greater degrees of automation... where pilots are not required at all, then that is where the policy issues will become significant."
>
> "Now, depending on the function of the mission, there still may be many people involved...most of those 200 people associated with a 24-hour orbit today are analysts interpreting the information streaming from the RPA. A UAV flown autonomously on an ISR mission, may still require many analysts to assimilate the information coming from the UAV. Where the policy challenges really come into play is the 'automatic' employment of weapons. I suggest that we will never--in our lifetimes--get to a point where weapons will be employed without a human in the consent loop."[39]

Precision and Maneuverability

While UAVs have been heavily utilized in recent years to target individuals with significant precision, the technology of UAVs is evolving to make them even *more* precise in their application abroad.

As noted by ForwardTrace's David Bither, the technology exists for making relatively larger UAVs even more accurate, but that entails placing more sensors on them, which in turn makes them heavier and results in lower endurance levels.[40]

J. Michael Barrett, former director of strategy for the White House Homeland Security Council, elaborates:

> "…Despite these tactical advantages, though, our current drone program has some significant drawbacks. Nearly all our drones' weapons are relatively large and heavy—each Hellfire missile carried by a Predator drone weighs 112 pounds."
>
> "Of course, larger drones have their uses. A Hellfire missile can flatten a small building … and even pierce a tank's armor. However, that kind of firepower is difficult to use in urban environments."[41]

Given the tactical limitations of the larger UAVs and the heavier payloads they carry, there is a clear trend towards the development of smaller, lighter UAVs, offering even greater precision and maneuverability, both for surveillance and strike purposes. Barrett continues:

> "[M]icro-drones, which have quiet electric motors, can monitor potential targets at incredibly close distances without tipping off the enemy."
>
> "Until recently, these pint-sized surveillance robots were too lightweight to arm. But thanks to the same technology that powers our smartphones, defense companies are flight-testing ever smaller drones packed with miniature explosives that can be delivered with pinpoint accuracy."
>
> "For example, Raytheon's Pyros is an air-launched bomb that weighs just 12 pounds, or about one-tenth the weight of a Hellfire missile. From its inception, Pyros was designed to be employed specifically by micro-drones. It is a weapon that has all the features of full-scale precision bombs that can zero in within one meter of targets."
>
> "Likewise, General Dynamics has designed a "smart" air-dropped mortar that lands within seven meters of its designated target. And AeroVironment has developed the Switchblade, which is small enough to fit in a soldier's backpack. The Switchblade can be flown directly into a target with a hand-grenade sized warhead, minimizing any potential collateral damage."[42]

Peter W. Singer of the Brookings Institution further comments:

> "…What really matters is not just the proliferation to an ever greater number of countries, but the proliferating makeup and uses of the technology itself. The first generation of unmanned systems was much like the manned systems they were replacing—some models actually had cockpits that were just painted over. Now, we are seeing an expanding array of sizes, shapes, and forms, some inspired by nature."

> "Within this trend, the size issue is important to discussions of armed drones. It is not just that drones are becoming smaller, but they are also carrying smaller and smaller munitions. So, if you want, for example, to carry out a targeted killing, do you need to send a MQ-9 Reaper carrying a JDAM or a set of Hellfire missiles? Or would a guided missile the size of a rolled up magazine, or a tiny bomb the size of a beer can that is equipped with GPS (both already tested out at China Lake) fit the bill instead, especially if it comes with less collateral damage? And if that smaller weapon is all that you need, do you need a drone the size of an F-16 to carry it?"[43]

A trend within the drive for greater precision includes the development of UAVs that use directed energy (light energy or lasers) for weaponization. ForwardTrace's David Bither elaborates:

> "There is a lot of interest in directed energy. It would be a huge step forward in terms of weaponization, because you would have something that's very stealthy, but also very precise. Very precise. It opens up more possibilities—for example, if there are bad guys in a car, and you're not sure if you can disable the car without civilian casualties, you can just burn a hole through the block of the car and then take it to the next step."[44]

Proliferation

As significant as developments concerning UAV endurance, precision and agility have been, of equal significance is the extent to which other countries, as well as non-state actors, are developing (or acquiring) and utilizing UAV capabilities to varying degrees.

UAVs of either the armed or unarmed variety are believed to be in the arsenals of roughly eighty nations.[45] Sources estimate that there are sixteen nations who currently possess armed UAVs, among them: The United States, the United Kingdom, Israel, Russia, China, Iran, India, Pakistan, Saudi Arabia, Lebanon, United Arab Emirates, Taiwan, France, Germany, Italy, and Sweden.[46]

Countries currently in possession of unarmed UAVs are not necessarily foregoing the option of pursuing an armed UAV capability. For example, Colombia announced in October, 2012 that it was going to develop its own UAVs for military use, though news sources described Colombian authorities as "vague" on the question of whether those UAVs will be developed for combat operations.[47] Turkey, while having developed its own reconnaissance UAV, has been highly interested in purchasing armed UAVs from the United States—a request that the United States, so far, has denied.[48]

Overall, the trend lies in the direction of more nations developing or acquiring armed UAV capabilities. In May of 2013, NBC News reported on Denel Dynamics, a company owned by the government of South Africa:

> "The company, Denel Dynamics, says the armed version of the Seeker 400, which will carry two laser-guided missiles, will enable so-called opportunistic targeting at a range of up to about 155 miles."
>
> "'These are not combat systems, they are foremost reconnaissance systems,' Sello Ntsihlele, executive manager of UAV systems for Denel, told NBC News. He added: '(But if) you speak to any general, show him the capability, he will tell you, 'I want to have munitions.'"[49]

Non-state actors are also enlisting, or seeking to enlist, UAV capabilities. In April of 2013, the Israeli Air Force intercepted a UAV it claimed belonged to Hezbollah and had taken off from Lebanon.[50] Although Hezbollah denied that it sent this particular UAV, this incident marked one of several in recent years where Israel had identified and shot down Hezbollah UAVs, including during Israel's 2006 war with Hezbollah.[51] Israel also engaged in Operation Pillar of Defense in November, 2012, during which Israel targeted Hamas's incipient UAV capabilities in the Gaza Strip. According to Israeli media:

> "Gaza's Hamas reached drone-production capabilities, military sources indicated on Friday, saying that the militant organization was in advanced development stages and was preparing to conduct flight tests…"
>
> "…Hamas and Islamic Jihad have both shown an interest in operating these craft, but only recently have security officials indicated that such capabilities existed in the Gaza Strip."[52]

Further informing the extent of, and potential for, proliferation of UAV technology to both states and non-state actors is the increasingly lower barriers to entry with respect to operating a UAV. One example of this is the development of UAVs that do not require satellite technology in order to operate—Denel Dynamics' Seeker 400 UAV, for example, is controlled via "line-of-sight" communications, which limits its range but opens it up to use by nations that do not possess space-based guidance systems.[53] Brookings' Peter Singer observes that the increasing autonomy of UAVs, discussed above, is also contributing significantly to the lowering of entry barriers:

> "…But these planes are also very different than their predecessors: They are smarter and more autonomous. They are designed to take off and land on their own, fly mission sets on their own, refuel in the air on their own, and penetrate enemy air defenses on their own. The Taranis even has modules designed to allow it to select its own targets."
>
> "This greater intelligence has an important following effect: The user base and functions are expanding, which further lowers the barriers to entry and changes the quality and type of the proliferation further. The early versions of unmanned systems were like the early computers, you had to go through deep training just to make them do basic tasks. **Now, just as experts once needed to learn Basic to use computers and now toddlers can use iPads, so too are advances in drone technology making them more accessible.**"[54] (emphasis added)

Also informing the proliferation landscape is the reality that although a nation or non-state actor might initially acquire UAV capabilities for ISR purposes, the prospect of "dual-use" conversion is constantly well within reach. Notes David Bither:

> "It is almost trivial for a country in possession of commercial UAV technology to convert it into a military capability…to change that payload out and the command-and-control link for weapons is really in the trivial category. This can be done by the customers themselves or with the help of a third party."[55]

When asked about the prospects of using UAVs for chemical/biological attacks, Bither added:

> "…Maybe not quite in the trivial category, but not hard. Precision, agriculture. Precision agriculture is a section, an area of commercial use where autonomous systems, airborne ones, deliver chemicals to a very precise area. So it's already there."[56]

This proliferation of UAV technology to dozens of nations, as well as non-state actors, has prompted some analysts to call for serious efforts on how to protect U.S. armed forces and officials from UAV attacks. As Professor Timothy Chung of the Naval Postgraduate School remarked to *Defense News*:

> "We need to be cognizant of the fact that nations elsewhere, and non-nation players, can easily develop unmanned systems themselves…So that leaves us to think about the adversarial unmanned systems. We need to think not just about our unmanned system but the ones that want to attack us."[57]

As Maj. Darin L. Gaub, division maneuver planner on the 1st Infantry Division staff, U.S. Army, put it in 2011:

> "America's wars of the last decade have vaulted the UAV from novelty to workhorse. Yet too little is being done to prepare for the inevitable day when our enemies turn these weapons, which are growing cheaper, more powerful and more ubiquitous, against us…"
>
> "…The American use of UAVs during the last decade opened the door to a future where their unique capabilities are sought after by multiple nation-states, terrorist organizations and terrorist-like groups, such as the drug gangs along America's southern border. It's too late to shut the proverbial barn door; the horses are already running amok. Now that unmanned technology is on the global market and proliferating rapidly, America's armed forces need to do a better job preparing for the use of UAVs by enemies."[58]

Finally, ForwardTrace's David Bither also notes the developing trend of "ISR-as-a-service", whereby a government or company does not itself have to own a UAV in order to benefit from the intelligence that UAVs are capable of gathering:

> "One of the most interesting trends is the emergence of ISR-as-a-service for defense & IC and situational intelligence services for commercial customers (e.g. pipeline security). Bottom line is that UAS capability is offered as a service (as in lease of subscription) to the user. The huge impact here is that the user is not constrained by owning the UAS or its associated infrastructure — it simply is provided with the data. The net effect is to greatly expand the countries, governments and companies that access UAS capability."[59]

Law

The future of how the United States deploys UAVs with respect to the use of force abroad will not be determined solely by the evolution of UAV technology, as significant as that may be for American intelligence and warfighting capabilities. The deployment of UAVs to undertake or assist in the use of force will also be guided by whether such operations comply with the laws governing their use for such purposes. For this reason, it is critical to examine the range of opinion on the extent to which American use of

UAVs overseas complies with present international and domestic law, and also what the future may hold for legal developments in these areas.

The laws governing these issues are derived from the United States Constitution and any laws made pursuant to its framework, treaties to which the United States is a party, and customary international law that the United States recognizes. Steven Groves of the Heritage Foundation elaborates on the nature of customary international law:

> "To the American ear, the use of the term 'law' in the phrase 'international law' conjures up the idea of binding rules enforced by judicial authorities and law enforcement officials. However, what Americans understand as 'law' in a domestic context is often out of place in considering U.S. compliance with 'international law'. In the conduct of war, the U.S. President must comply with the supreme law of the land, which the U.S. Constitution makes clear consists of the Constitution itself, laws made in pursuance thereof, and treaties to which the United States is a party. The United States also makes a practice of following what is known as 'customary international law', which 'is comprised of those practices and customs that States view as obligatory and that are engaged in or otherwise acceded to by a preponderance of States in a uniform and consistent fashion.'"[60]

As we will see, the Obama administration has maintained that it is in compliance with both international and domestic law with respect to the use of UAVs abroad. Legal experts from across the spectrum of opinion have commented extensively—including specifically for this study—on the question of whether U.S. practice in this area is in fact in compliance with the law, as well as what the trends in both international and domestic law (if any) may bring to this debate in the years ahead.

International Law—Outlining Jus Ad Bellum

International law principles governing the use of force can be broken down broadly along two areas of international law: [1] the question of whether the United States is lawfully undertaking the use of force to begin with (an area of law referred to in the international law field as *jus ad bellum*, or the justifications for going to war); and [2] the question of whether, assuming the resort to force is lawful, the United States is conducting warfare lawfully (an area of law referred to in the international law field as *jus in bello*, or the manner in which warfare is conducted).[61]

Necessity and Proportionality in Jus Ad Bellum

The *jus ad bellum* laws have their origins in the concept of "just war", articulated in varying respects by Cicero, St. Augustine, St. Thomas Aquinas, and later Grotius. As noted by *Air Force Magazine* in 2003, Mark Edward DeForrest summarizes Grotius' criteria for just war as follows:

- The danger faced by the nation is immediate.
- The force used is necessary to adequately defend the nation's interests.

- The use of force is proportionate to the threatened danger. [62]

Over time, these three principles of *imminence*, *necessity* and *proportionality* have evolved into elements of customary international law governing a nation's use of force against another nation. These principles were famously articulated in the correspondence following the *Caroline* incident, an episode in 1837 during which British troops, believing that a U.S. ship moored on the U.S. side of the Niagara river was providing assistance to anti-British rebels in Canada, raided the ship, killing its occupants and setting it on fire.[63] The correspondence that followed from then-Secretary of State Daniel Webster to the British government was significant in its articulation of concepts of necessity and proportionality—and relatedly, that "imminence" of a threat informs the assessment of whether the use of force is "necessary"—as *jus ad bellum* principles. As Prof. Anthony Clark Arend explains:

> "First, the state seeking to exercise force in self-defense would need to demonstrate necessity. As Webster explained in a letter to Lord Ashburton…the state would have to demonstrate that the 'necessity of that self-defense is instant, overwhelming, and leaving no choice of means, and no moment of deliberation.' In other words, the state would need to show that the use of force by the other state was imminent and that there was essentially nothing but forcible action that would forestall such attack."
>
> "Second, the state using force in self-defense would be obliged to respond in a manner proportionate to the threat. In making the argument to the British, Webster explained that, in order for Canada's action to be permissible, it would be necessary to prove that 'the local authorities of Canada, even supposing the necessity of the moment authorized them to enter the territories of the United States at all, did nothing unreasonable or excessive; since the act, justified by the necessity of self-defense, must be limited by that necessity, and kept clearly within it.'"[64]

Sovereignty and self-defense

The United Nations Charter, to which the United States is a party, marked further significant development in the *jus ad bellum* principles. First, the Charter codified a presumption against the violation of another nation's sovereignty, as articulated in Article 2, Section 4:

> "All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations."[65]

Secondly, however, the Charter carved out two exceptions to this general rule. The first of these exceptions was that the United Nations Security Council would be empowered to authorize the use of force to address threats to international security:

> "The Security Council shall determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall make recommendations, or decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security…"[66]

> "Should the Security Council consider that measures provided for in Article 41 [governing the employment of measures "not involving the use of armed force"] would be inadequate or have proved to be inadequate, it may take such action by air, sea, or land forces as may be necessary to maintain or restore international peace and security. Such action may include demonstrations, blockade, and other operations by air, sea, or land forces of Members of the United Nations."[67]

The second exception to the presumption against the use of force was contained in Article 51 of the Charter, articulating a state's right to "self-defense":

> "Nothing in the present Charter shall impair *the inherent right of individual or collective self-defence if an armed attack occurs* against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security…"[68] (emphasis added)

Importantly, Anthony Clark Arend notes that there has been disagreement within the legal community on the scope of the right of self-defense, specifically on the question of how "necessity" is calculated with respect to the triggering of this right—in other words, whether the UN Charter maintains what had previously been interpreted as a right to "anticipatory self-defense":

> "If one reviews the scholarly literature on this provision, writers seem to be divided into two camps. On one hand, some commentators—'restrictionists' we might call them—claim that the intent of Article 51 was explicitly to limit the use of force in self-defense to those circumstances in which an armed attack has actually occurred. Under this logic, it would be unlawful to engage in any kind of preemptive actions. A would-be victim would first have to become an actual victim before it would be able to use military force in self-defense. Even though Article 51 refers to an 'inherent right' of self-defense, restrictionists would argue that, under the charter, that inherent right could now be exercised only following a clear, armed attack."
>
> "Other scholars, however, would reject this interpretation. These 'counter-restrictionists' would claim that the intent of the charter was not to restrict the preexisting customary right of anticipatory self-defense. Although the arguments of specific counter-restrictionists vary, a typical counter-restrictionist claim would be that the reference in Article 51 to an 'inherent right' indicates that the charter's framers intended for a continuation of the broad pre-UN Charter customary right of anticipatory self-defense. The occurrence of an 'armed attack' was just one circumstance that would empower the aggrieved state to act in self-defense."[69]

"Unwilling or Unable" Doctrine

In the context of non-state actors (or actors not consisting of the armed forces of any state), the doctrine of "unwilling or unable" becomes a key component in the formulation of whether a victim state has a right to act in self-defense and therefore violate the sovereignty of the territorial state (the state from which the non-state actors are attacking). Professor Ashley Deeks explains:

> "The necessity inquiry thus has two prongs in the nonstate actor context: A victim state must consider not just whether the attack was of a type that would require it to use force in response

> to that nonstate actor, but it also must evaluate the conditions in the state from which the nonstate actor launched the attacks. This latter evaluation is where, absent consent, states currently employ the 'unwilling or unable' test to assess whether the territorial state is prepared to suppress the threat. If the territorial state is neither willing nor able, the victim state may appropriately consider its own use of force in the territorial state to be necessary and, if the force is proportional and timely, lawful. If the territorial state is both willing and able, it will not be necessary for the victim state to use force, and the victim state's force would be unlawful."[70]

Professor Michael N. Schmitt notes a relationship between "unwilling or unable" doctrine and UAV capabilities:

> "It is essential to highlight the likely possibility that the territorial state may be willing to conduct actions against the terrorists or insurgents but nevertheless be unable to do so in general or with regard to specific cases. The use of drones is particularly relevant in such circumstances since they often represent a way to react quickly to perishable intelligence or to reach otherwise inaccessible areas."[71]

International Law—Is the United States in Compliance with Current *Jus Ad Bellum* Principles?

Having undertaken a highly abbreviated overview of the principles underlying *jus ad bellum*, the question becomes: Is the United States' use of UAVs to target and eliminate terrorists abroad in compliance with *jus ad bellum* principles?

President Obama and key members of his administration have defended the legality of American use of UAVs abroad in both international and domestic law terms. President Obama, in his National Defense University address of May 2013, remarked:

> "Moreover, America's actions are legal. We were attacked on 9/11. Within a week, Congress overwhelmingly authorized the use of force. Under domestic law, and international law, the United States is at war with al Qaeda, the Taliban, and their associated forces. We are at war with an organization that right now would kill as many Americans as they could if we did not stop them first. So this is a just war—a war waged proportionally, in last resort, and in self-defense."[72]

Then-State Department Legal Adviser Harold Koh remarked in a March 2013 address at the American Society of International Law:

> "…US targeting practices, including lethal operations conducted with the use of unmanned aerial vehicles, comply with all applicable law, including the laws of war."
>
> "The United States agrees that it must conform its actions to all applicable law. As I have explained, as a matter of international law, the United States is in an armed conflict with al-Qaeda, as well as the Taliban and associated forces, in response to the horrific 9/11 attacks, and may use force consistent with its inherent right to self-defense under international law. As

> a matter of domestic law, Congress authorized the use of all necessary and appropriate force through the 2001 Authorization for Use of Military Force (AUMF). These domestic and international legal authorities continue to this day."
>
> "…Of course, whether a particular individual will be targeted in a particular location will depend upon considerations specific to each case, including those related to the imminence of the threat, the sovereignty of the other states involved, and the willingness and ability of those states to suppress the threat the target poses."[73]

Then-Assistant to the President for Homeland Security and Counterterrorism (now Director of Central Intelligence) John Brennan commented in an April 2012 address at the Woodrow Wilson International Center for Scholars:

> "As a matter of international law, the United States is in an armed conflict with al-Qaida, the Taliban, and associated forces, in response to the 9/11 attacks, and we may also use force consistent with our inherent right of national self-defense. There is nothing in international law that bans the use of remotely piloted aircraft for this purpose or that prohibits us from using lethal force against our enemies outside of an active battlefield, at least when the country involved consents or is unable or unwilling to take action against the threat."[74]

In a separate speech at Harvard Law School, Brennan outlined the Obama administration's views on the concept of "imminence" with respect to terrorist organizations:

> "We are finding increasing recognition in the international community that a more flexible understanding of 'imminence' may be appropriate when dealing with terrorist groups, in part because threats posed by non-state actors do not present themselves in the ways that evidenced imminence in more traditional conflicts. After all, al-Qa'ida does not follow a traditional command structure, wear uniforms, carry its arms openly, or mass its troops at the borders of the nations it attacks. Nonetheless, it possesses the demonstrated capability to strike with little notice and cause significant civilian or military casualties. Over time an increasing number of our international counterterrorism partners have begun to recognize that the traditional conception of what constitutes an 'imminent' attack should be broadened in light of the modern-day capabilities, techniques, and technological innovations of terrorist organizations."[75]

Attorney General Eric Holder also commented on these matters during his March 2012 address at Northwestern University School of Law, asserting that the legal authority to use force against al Qaeda and others is not limited by geography:

> "…It is preferable to capture suspected terrorists where feasible—among other reasons, so that we can gather valuable intelligence from them—but we must also recognize that there are instances where our government has the clear authority—and I would argue, the responsibility—to defend the United States through the appropriate and lawful use of lethal force.
>
> "This principle has long been established under both U.S. and international law. In response to the attacks perpetrated—and the continuing threat posed—by al Qaeda, the Taliban, and associated forces, Congress has authorized the President to use all necessary and appropriate force

> against those groups. Because the United States is in an armed conflict, we are authorized to take action against enemy belligerents under international law. The Constitution empowers the President to protect the nation from any imminent threat of violent attack. And international law recognizes the inherent right of national self-defense. None of this is changed by the fact that we are not in a conventional war."
>
> "Our legal authority is not limited to the battlefields in Afghanistan. Indeed, neither Congress nor our federal courts has limited the geographic scope of our ability to use force to the current conflict in Afghanistan. We are at war with a stateless enemy, prone to shifting operations from country to country. Over the last three years alone, al Qaeda and its associates have directed several attacks—fortunately, unsuccessful—against us from countries other than Afghanistan. Our government has both a responsibility and a right to protect this nation and its people from such threats."
>
> "This does not mean that we can use military force whenever or wherever we want. International legal principles, including respect for another nation's sovereignty, constrain our ability to act unilaterally. But the use of force in foreign territory would be consistent with these international legal principles if conducted, for example, with the consent of the nation involved—or after a determination that the nation is unable or unwilling to deal effectively with a threat to the United States."[76]

Holder went on to outline the Obama administration's view of what constitutes an "imminent" threat creating legal justification for the use of force:

> "…The evaluation of whether an individual presents an 'imminent threat' incorporates considerations of the relevant window of opportunity to act, the possible harm that missing the window would cause to civilians, and the likelihood of heading off future disastrous attacks against the United States. As we learned on 9/11, al Qaeda has demonstrated the ability to strike with little or no notice—and to cause devastating casualties. Its leaders are continually planning attacks against the United States, and they do not behave like a traditional military—wearing uniforms, carrying arms openly, or massing forces in preparation for an attack. Given these facts, the Constitution does not require the President to delay action until some theoretical end-stage of planning—when the precise time, place, and manner of an attack become clear. Such a requirement would create an unacceptably high risk that our efforts would fail, and that Americans would be killed."[77]

Some scholars have expressed support for the view that the American use of UAVs to undertake force abroad is in compliance with *jus ad bellum* principles with respect to "imminence", which as noted earlier, is a key component of the "necessity" calculation in *jus ad bellum*.

For example, Steven Groves of the Heritage Foundation asserts:

> "…The United States is not in a position to stand by and wait for well-armed transnational terrorist organizations to be on the cusp of a strike against the United States before we can take action. That is not a realistic way to combat terrorist groups, which are not criminal enterprises, but rather enterprises which are bent on planning and launching high-civilian-casualty at-

> tacks against the United States. We cannot just sit back and wait to have concrete intelligence that a certain strike is happening on a certain day at a certain location and then, and only then, act. That is not realistic."[78]

Other scholars take the opposite view and assert that, with respect to the use of UAVs to undertake force abroad, the United States is *not* in compliance with current *jus ad bellum* principles regarding "imminence".

As Gabor Rona, International Legal Director at Human Rights First, asserts:

> "…We are probably not in compliance with *jus ad bellum* principles…What we have heard gives us great reason to be concerned that US practices are beyond the bounds of *jus ad bellum*. In particular, Attorney General Holder's statements about what he called the concept of 'imminence.' And looking at the legal history of the *jus ad bellum* at the traditional concept, what constitutes a sufficiently imminent threat to justify use of force? We look at the *Caroline* case. And in the *Caroline* case, the reference is to threats that create no moment for pause, that do not allow for alternatives, that do not allow for deliberation. On the other hand, when Eric Holder refers to what he called an 'elongated' concept of imminence…in fact, he wasn't even elongating. He was changing. He was changing from the traditional nature of 'imminence' to a concept of the window of opportunity to get the perceived bad guy. That's not even an elongated concept of 'imminence', that is a different consideration entirely, and one that also ignores the very concept of this high threshold required to satisfy the requirement of 'imminence'—of potential harm."
>
> "In other words, I don't see any reference in the pronouncements of US policy to the concept of imminent harm at all anymore. What I see is that their reference to a generalized threat, and perhaps a more specific reference to a concern that, well, we can drone the guy now, but if we don't do it now, we may not be able to lay our hands on him again. Therefore, we drone him now. But that is without reference to the nature and the severity of the threat posed by the individual. It is without reference to plausibility of means of neutralizing whatever the threat may be short of lethal force. It is highly suggestive to me that the US is applying what we consider to be its *jus ad bellum* powers in a way that I think does not comport with the international law on that subject."[79]

The "Living Under Drones" Project—a joint effort of human rights clinics at New York University School of Law and Stanford University Law School—summarizes the arguments against the Obama administration view of "imminence" as follows:

> "In the absence of Pakistani consent, US use of force in Pakistan may not constitute an unlawful violation of Pakistan's sovereignty if the force is necessary in self-defense in response to an armed attack—either as a response to the attacks of September 11, 2001, or as anticipatory self-defense to mitigate threats posed by non-state groups in Federally Administered Tribal Areas (FATA). For the use of force to be lawful, the host state must also be shown to be 'unwilling or unable to take [the appropriate steps, itself, against the non-state group].' (brackets in original)

> Legal experts, including the current U.N. Special Rapporteur on extrajudicial, summary or arbitrary executions, Christof Heyns, have questioned whether 'killings carried out in 2012 can be justified as in response to [events] in 2001,' noting that 'some states seem to want to invent new laws to justify new practices.' 'Anticipatory' self-defense has been offered as a narrow exception, invoked to prevent an attack that is 'instant, overwhelming, and leaving no choice of means, and no moment of deliberation.' There is little publicly available evidence to support a claim that each of the US targeted killings in northwest Pakistan meets these standards. Indeed, on currently available evidence, known practices—such as signature strikes, and placing individuals on kill lists for extended periods of time—raise significant questions about how the self-defense test is satisfied."[80] (brackets in original)

Along a parallel line of reasoning, Prof. Mary Ellen O'Connell asserts that terrorism by its very nature cannot lawfully trigger the right to self-defense:

> "An armed response to a terrorist attack or a nuclear weapons program will almost never meet these parameters for the lawful exercise of self-defense. Terrorist attacks are generally treated as criminal acts because they have all the hallmarks of crimes, not armed attacks that can give rise to the right of self-defense. The textbook case on self-defense is the 1990-91 liberation of Kuwait following Iraq's invasion…
>
> The Kuwait case had two aspects not found in connection with most terrorist attacks. First, no one doubted who carried out the aggression: Iraq. Second, the occupation of Kuwait created a continuing wrong that could be righted, especially since the Security Council had authorized a coalition of states to liberate Kuwait…
>
> [Terrorist] attacks are usually brief and do not result in an on-going wrong such as the unlawful occupation of territory. It usually takes some time to find out who the perpetrators are and where they are. *But force may not be used long after the terror act as it loses its defensive character and becomes unlawful reprisal."*[81] (emphasis added)

Although O'Connell does not explicitly use the term "imminence" in the analysis above, she does imply that the nature of terrorism is such that after a single act of terrorism is completed, the perpetrators cannot lawfully be targeted through a self-defense paradigm because there is no "on-going wrong" against which to defend. This position runs contrary to the notion that terrorists constitute an "imminent" threat due to the nature of how they plan and operate, and—as Attorney General Holder has asserted—can therefore be targeted well prior to the end-stages of their planning.

A second matter of contention on the question of whether the United States' use of UAVs is in compliance with *jus ad bellum* principles is that of whether a state has a legal right to exercise self-defense against non-state actors inside the territory of a state not having carried out the attack itself. As Prof. Jordan Paust writes:

> "The vast majority of writers agree that an armed attack by a non-state actor on a state, its embassies, its military, or other nationals abroad can trigger the right of self-defense addressed in Article 51 of the United Nations Charter, even if selective responsive force directed against a non-state actor occurs within a foreign country. Article 51 of the Charter expressly affirms the right of a state to respond defensively 'if an armed

> attack occurs', and nothing in the language of Article 51 restricts the right to engage in self-defense actions to circumstances of armed attacks by a 'state.'"[82]

Prof. Mary Ellen O'Connell asserts, however:

> "The [International Court of Justice] ruled in the *Nicaragua* case in 1986, the *Congo* case in 2005, and *Bosnia v. Serbia* in 2007 that a state must be in control of a non-state actor group for the state to bear legal responsibility and be the legitimate target of the use of force in self-defense following a significant armed attack. Pakistan has not attacked the United States. The only attack on the United States that could give rise to the right of self-defense since the drafting of the UN Charter occurred on 9/11. The Security Council stated in Resolution 1368 that those attacks gave rise to the right, but it did not determine who was responsible for the attacks or whether a response in self defense would meet the principles of necessity and proportionality. *Pakistan is in no respect responsible for the 9/11 attacks. The United States has no basis, therefore, for attacking in self-defense on Pakistani territory."*[83] (emphasis added)

A third matter of contention in the debate over whether United States use of UAVs complies with *jus ad bellum* principles is on the question of the role of Pakistan's arguably ambiguous consent to UAV strikes against non-state actors operating from within its territory. Some scholars argue that Pakistan's consent to UAV strikes against such non-state actors is not required under international law, while others argue the opposite. Notes Prof. Jordan Paust:

> "Nothing in the language of Article 51 of the United Nations Charter or in customary international law reflected therein or in Pre-Charter practice…requires consent of the state from which a non-state actor armed attack is emanating and on whose territory a self-defense action takes place against the non-state actor. In fact, with respect to permissible measures of self-defense under Article 51, a form of consent of each member of the United Nations already exists in advance by treaty…"
>
> "…For these reasons, with respect to U.S. use of drones in Pakistan to target al Qaeda and Taliban leaders and fighters, it is clear that the U.S. would not need the express consent of Pakistan to carry out self-defense targeting."[84]

Prof. Kenneth Anderson adds:

> "This is a *jus ad bellum* question: where can the US lawfully use force against non-state actors such as terrorist groups or insurgent groups who take safe havens across the border in a third state? If the terrorists or insurgents are hiding out in a third state, does the US have to obtain the consent of that state in order to use force in its territory? Suppose a lawful target—some adversary who can be targeted under the laws of war—flees to some third state. Under what circumstances, if any, can the United States attack him there? The third state asserts its rights of territorial integrity and sovereignty under the UN Charter, and says it is neutral in any conflict between the US and the adversary's organization. What about territorial integrity, sovereignty, and neutrality? The US position has long been—going back many decades: The rights of territorial integrity, sovereignty, and neutrality are genuinely important in international law. Sovereign rights are unquestionably important, for the US and others. So if we—the US—can

> get consent from that state to go after these people in this (supposedly) neutral territory (whether Yemen, Somalia, or someplace else) we will do so. We also understand that consent might be in secret and might even be accompanied for that country's political reasons by a public denial that it gave consent, as has happened repeatedly with Pakistan and appears to have happened most recently with Libya. But consent, or rather the failure to obtain consent, is not the end of the discussion. If a country is unwilling or unable to control the presence of terrorists or adversaries of the US in an armed conflict—adversaries who are lawful targets—on its territory, the US asserts (based on a long history of state practice by itself and other states), that the state has compromised its neutrality status. This does not give the United States unlimited license to do anything—its response must be proportional and directed against the lawful targets—but countries in a conflict or dealing with terrorist groups don't have to tolerate safe havens."
>
> "Neutrality brings obligations as well as rights. One of the obligations of a sovereign is to insure that your territory is not being used as a staging area or safe haven for people who are targetable combatants or targetable terrorists. So the US's basic principle here is that it will seek consent where possible, but the lack of it does not end the conversation, and safe havens can be dealt with using force if necessary. The law permits this."[85]

Prof. Mary Ellen O'Connell takes a different view of the role of territorial state consent with respect to the exercise of self-defense against non-state actors:

> "Even where militant groups remain active along a border for a considerable period of time, their armed cross-border incursions are not considered attacks under Article 51 giving rise to the right of self-defense unless the state where the group is present is responsible for their actions. In the case of *Congo v. Uganda*, Uganda sent troops into Congo after years of cross-border incursions by armed groups from Congo into Uganda. Congo, however, was not responsible for the armed groups—it did not control them. Congo's failure to take action against them did not give rise to any right by Uganda to cross into Congo to attack the groups themselves…"
>
> "…But Uganda was found to have violated Article 2(4) of the UN Charter for its attacks on Congolese territory."[86]

International Law—Trends in *Jus Ad Bellum?*

Broadly speaking, one can distill three outlooks on the development of *jus ad bellum* trends relevant to UAVs: [1] The view that *jus ad bellum* needs to be adjusted to account for UAVs in a way that would *temper* their use for lethal force; [2] The view that current *jus ad bellum* principles are entirely adequate for addressing the use of UAVs and that application of current *jus ad bellum* principles should enable their use (or alternatively, temper their use); and [3] The view that current *jus ad bellum* principles are inadequate to deal with the realities of terrorism and need to be adjusted to better address the threat.

Analyst Eric Posner writes:

> "Drones are everywhere…And they are forcing us to rethink some basic legal principles—for good reason, because drones are making the old ones obsolete."
>
> "…when drones eliminate the risk of casualties, the president is more likely to launch wars too often.
>
> The same problem arises internationally. The international laws that predate drones assume that military intervention across borders risks significant casualties. Since that check normally kept the peace, international law could give a lot of leeway for using military force to chase down terrorists. But if the risk of casualties disappears, then nations might too eagerly attack, resulting in blowback and retaliation…"
>
> "Internationally, nations might benefit from an arms control agreement governing drones, but it is hard to imagine any such agreement in the near future, given uncertainties about how drone technologies will develop, the difficulty of monitoring drones, and the asymmetries that mean the best-equipped states will resist any constraints. But a starting point is to recognize that the laws of war currently favor drones because they limit civilian casualties, while disfavoring conventional weapons—a surefire recipe for a destabilizing arms race."
>
> "…the long-predicted science-fiction world of robotic killing machines has finally arrived. The law now has to catch up."[87]

As the International Bar Association reported in June of 2013:

> "John Shattuck, US Assistant Secretary of State for Democracy, Human Rights and Labour under President Clinton, believes the law of nations is ill-equipped to address the rules of drone combat in counter-terrorism operations. 'We are living in a very volatile and rapidly changing world when it comes to the means by which warfare is conducted,' he tells *IBA Global Insight*. 'I think international law is not fully equipped to address the rules that need to exist in these areas.'"[88]

Prof. Amos Guiora—Professor of Law, SJ Quinney College of Law, University of Utah, and author of the book *Legitimate Target—A Criteria-Based Approach to Targeted Killing*— highlights the need for an international regime specifically on UAVs:

> "I think [the ease with which UAVs allow the use of force to be undertaken] highlights the need for some kind of international regime with the understanding that an international regime, in the context of drones, may be like international conventions on the use of chemical weapons or non-proliferation and so on. It is clearly legitimate to think about this, and may well be necessary to create it and apply it.
>
> "I think one of the concerns amongst those of us who think long and hard about drones will be the use by non-state actors of drones. To the extent that it's only been state actors who have used drones, international laws and international conventions apply to that. The question will be, what will happen if non-state actors start using drones…"

> "In the context of international law, UN conventions, multilateral treaties, bilateral treaties, I think this is clearly a conversation that needs to be had, particularly as more and more countries will have drones, and more and more non-state actors will have drones."[89]

In speculating on the question of whether critics of UAVs will in fact push for adjustments to *jus ad bellum* in the future, Prof. Kenneth Anderson predicts:

> "The question is whether UAV critics decide to press against the technology itself, push back against the on-going development of the weapon platform. I think it's a bad idea, but in the case of drones (including drones that are gradually becoming more highly automated), well, it's hopeless. All of civilian aviation is this way, and I doubt the US Air Force will think it is legally obligated to use less sophisticated flying technology than United Airlines…[T]here will be efforts to ban military drones as a technology—presumably not just the weaponization, but the increasingly automated flying platform. But the real pushback against drones will likely come in how the technology is used in national security: seeking to outlaw the ways drones are used, seeking to outlaw targeting killing as the US does it today, along with any 'unconventional' uses of weaponized drones, drones as weapon systems. The pushback will include legal challenges to use drones across sovereign borders. Legal challenges to using it in places where states have not given their consent. Challenges to using drone strikes outside of 'active theatres' of armed conflict, though that concept of war as having a defined geography does not have a place in the law of hostilities, at least not in the US's long-standing view."
>
> "…There will be a push for a treaty. Most likely several treaties—one seeking to limit drone strikes and targeted killing, and another seeking to outlaw 'autonomous lethal weapons' that might include highly automated drones. A treaty seeking to ban drone warfare will follow one of two paths. It will either go nowhere—it will have as much traction as efforts to ban submarines a century ago. Or, if it goes anywhere, it will gain traction only among states that have no serious interests at stake. Those states might include a lot of our close NATO allies, on account of pressures from their publics and strong constituencies inside their countries, who bring pressure in their parliaments—and this, even though their ministries of defense believe overwhelmingly that they must acquire drones, for reasons of military necessity but also to have the most civilian-sparing technologies of war in their arsenals. Yet at the end of the day, these European allies can support any ban treaty they want, because they know, at the end of the day, the U.S. guarantees their security. There's a reason why the US has 430 or so drones; Europe together has 30-40 (unweaponized, with a handful of exceptions); and France has four, one of which is out of service. But note: our European allies have been willing to use force in Libya, and France in Mali—whereupon the lack of drones has become obvious outside of anti-drone activist circles. As the French defense minister said, confronted with the overwhelming need for drones to track terrorists in Mali fleeing into the mountains, it is 'incomprehensible' that France does not have more drones. At this point, then, France would likely not vote for a treaty that generally banned drone warfare, because the French in Mali have discovered how important they are. Whether from genuine belief in the issue, however, or to placate the activist community, I have no idea, France has recently signed onto the idea of a treaty drafting meeting to produce a ban or moratorium on autonomous lethal weapons—perhaps cynically believ-

> ing that it's okay to support a treaty that would ban the Terminator, Skynet, and the 'killer robots' of science fiction because, frankly, who cares? But perhaps they should read Human Rights Watch's call for a ban; it's report calls for a sweeping ban that might easily be read to include a ban even on the mere development of technologies that might lead to an autonomous weapon, not just sci-fi killer robots. It would be embarrassing, one might think, if high-minded states did what the activists asked, and wound up accidentally banning the technologies central to the Google car."[90]

Some analysts, rather than suggesting that new *jus ad bellum* principles are needed to address the capabilities of UAVs, posit that *jus ad bellum* principles will remain, and should remain, as they are today, though perhaps for different reasons.

Heritage's Steven Groves comments that the current *jus ad bellum* framework supports current American use of UAVs:

> "The [*jus ad bellum*] laws have served us well for many, many years now. The laws of self-defense have been in place and the idea of preventive self-defense has been in place. The Six-Day War was a good example of a lawful use of force even though Israel had not yet been attacked. What has changed after 9/11 is that a non-state actor was able to execute an attack that rose to a military scale, and the United States at least, for one, has decided to work within existing *jus ad bellum* frameworks, going after that threat until we have neutralized it…the rules that are in place right now, one way or the other, have survived. Bombers can go around the globe, fighter jets, cruise missiles—all types of weapons that can strike from a great distance. I think the law can survive drones."[91]

Gabor Rona of Human Rights First also argues that new *jus ad bellum* principles are not needed to accommodate UAVs, but reaches the opposite conclusion on implications for American UAV use:

> "I will not speak for other human rights organizations. But I am in close communication with our sister organizations on a lot of subjects and this one in particular. I do not know of anyone of those organizations that is either counseling or clamoring or advocating in favor of new or changed law. What I believe, and I believe this is consistent throughout the human rights advocacy world, is that existing *jus ad bellum* and existing *jus in bello* are more than adequate, that there is no need for new rules."
>
> "What there is a need for is both compliance with the existing international law and greater transparency on the part of the United States, so that people in whose name killing, detention, and military trials are taking place, know exactly how the government is using those powers. The calls for new law seem to come more from defenders of US policy, who—it is my impression from their writings—want to see the US legally justified in using force, in projecting force internationally, at perceived threats, but without regard to whether those threats are actually imminent or whether those threats would be ameliorated by means lesser than lethal force. I think that is the flaw in thinking that leads to a call for new laws. To put it bluntly, my impression and experience is that criticism of the advocacy of existing law and calls for rewriting the law tend to come from people who want greater projection of force to be justified, while those

> of us in the human rights world want the US to be more circumspect about its use of force internationally."[92]

Indeed, some scholars have indicated a need for a re-writing, or at least a re-interpretation, of *jus ad bellum* principles, with an eye toward accommodating the need to use the technology necessary to defend against terrorist, non-state actors.

Lt. Dennis Harbin, of the U.S. Navy Judge Advocate General Corps, writing in the United States Naval Institute's *Proceedings Magazine*, frames the challenge as follows:

> "Currently, the use of force is legally justified only if in response to an armed attack, if an armed attack is imminent, or if authorized by the U.N. Security Council. Al Qaeda executed an unlawful attack on the United States in September 2001, and under international law, we had the right to defend ourselves and to take action to prevent future attacks. We did so when we invaded Afghanistan. The use of UAVs to target al Qaeda leadership there has proven successful, decimating those responsible for the 9/11 attacks. But when the conflict in Afghanistan ends in 2014, how will the administration justify continued UAV strikes in Yemen, Somalia, or Pakistan, where we are not engaged in traditional armed conflict?..."
>
> "…Given the administration's intent to institutionalize the drone war post-Afghanistan, the gap between the traditional laws of armed conflict and how we intend to defend this country needs to close. As a way forward, the United States ought to work with international partners to establish an updated legal framework that recognizes this new era in international conflict that is now almost 12 years old. They could start by explicitly recognizing as aggressors transnational terrorist organizations such as al Qaeda and its affiliates. An updated legal framework would help maintain our ability to continue preventing future attacks, even in the face of increasing international scrutiny."[93]

Prof. John Yoo, a former deputy assistant Attorney General in the George W. Bush administration, argues that the concept of "imminence" as has been traditionally understood is ill-suited for addressing the threat of terrorist non-state actors. Though Yoo does not specifically discuss UAVs in this analysis, his commentary does speak to the circumstances under which the United States should be able to deploy force against those currently targeted via UAVs:

> "…Imminence classically depended on timing. Only when an attack is soon to occur, and thus certain, can a nation use force in preemptive self-defense. What about the magnitude of harm posed by a threatened attack? According to conventional doctrine, a nation must wait until an attack is imminent before using force, whether the attack is launched by a small band of cross-border rebels, as in the *Caroline* affair, or by a terrorist organization armed with biological or chemical weapons. Terrorist groups today can launch a sudden attack with weapons of devastating magnitude. To save lives, it is now necessary to use force earlier and more selectively."
>
> "Imminence as a concept also fails to deal with covert activity. Terrorists deliberately disguise themselves as civilians. Their organizations have no territory or populations to defend, and they attack by surprise. This makes it virtually impossible to use force in self-defense once an attack is 'imminent.' There is no target to attack in the form of the army of a nation-state. The best

> defense will be available only during a small window of opportunity when terrorist leaders become visible to the military or intelligence agencies. This can occur, as in the case of bin Laden, well before a major terrorist attack occurs. Imminence doctrine does not address cases in which an attack is likely to happen, but its timing is unpredictable. Rules of self-defense need to adapt to the current terrorist threat."
>
> "…The speed and severity possible today mean that the right to preempt today should be greater than in the past."[94]

One proposal for a re-write of *jus ad bellum* laws that received a considerable amount of attention in legal circles consisted of proposed principles articulated in 2012 by Daniel Bethlehem, former principal Legal Adviser of the U.K. Foreign & Commonwealth Office. Bethlehem comments in part upon statements made previously by then-UK Attorney General Lord Goldsmith, who stated during a House of Lords debate in 2004:

> "The concept of what constitutes an 'imminent' armed attack will develop to meet new circumstances and new threats.…It must be right that states are able to act in self-defence in circumstances where there is evidence of further imminent attacks by terrorist groups, even if there is no specific evidence of where such an attack will take place or of the precise nature of the attack."[95]

Bethlehem goes on to comment upon Lord Goldsmith's remarks:

> "In emphasizing that each case must be analyzed in context and that the concept of 'imminence' will develop to meet new circumstances and new threats, Lord Goldsmith's statement underlined that self-defense is not a static concept but rather one that must be reasonable and appropriate to the threats and circumstances of the day…"
>
> "…It is by now reasonably clear and accepted that states have a right of self-defense against attacks by nonstate actors…There is, however, a paucity of considered and authoritative guidance on the parameters and application of that right in the kinds of circumstances that states are now having to address. These circumstances include those of [1] successive attacks or threats of attack against a state or its interests, [2] attacks or threats of attack emanating from more than one territorial jurisdiction, and [3] attacks or threats of attack by a nonstate actor operating either as a distinct entity or in affiliation with a larger nonstate movement."
>
> "Separate from the above, while 'imminence' continues to be a key element of the law relevant to anticipatory self-defense in response to a threat of attack, the concept needs to be further refined and developed to take into account the new circumstances and threats from nonstate actors that states face today."[96]

Bethlehem then proceeds to put forth the following sixteen proposed principles:

> "Principles Relevant to the Scope of a State's Right of Self-Defense Against an Imminent or Actual
>
> **Armed Attack by Nonstate Actors**

1. States have a right of self-defense against an imminent or actual armed attack by nonstate actors.

2. Armed action in self-defense should be used only as a last resort in circumstances in which no other effective means are reasonably available to address an imminent or actual armed attack.

3. Armed action in self-defense must be limited to what is necessary to address an imminent or actual armed attack and must be proportionate to the threat that is faced.

4. The term "armed attack" includes both discrete attacks and a series of attacks that indicate a concerted pattern of continuing armed activity. The distinction between discrete attacks and a series of attacks may be relevant to considerations of the necessity to act in self-defense and the proportionality of such action.

5. An appreciation that a series of attacks, whether imminent or actual, constitutes a concerted pattern of continuing armed activity is warranted in circumstances in which there is a reasonable and objective basis for concluding that those threatening or perpetrating such attacks are acting in concert.

6. Those acting in concert include those planning, threatening, and perpetrating armed attacks and those providing material support essential to those attacks, such that they can be said to be taking a direct part in those attacks.

7. Armed action in self-defense may be directed against those actively planning, threatening, or perpetrating armed attacks. It may also be directed against those in respect of whom there is a strong, reasonable, and objective basis for concluding that they are taking a direct part in those attacks through the provision of material support essential to the attacks.

8. Whether an armed attack may be regarded as "imminent" will fall to be assessed by reference to all relevant circumstances, including (a) the nature and immediacy of the threat, (b) the probability of an attack, (c) whether the anticipated attack is part of a concerted pattern of continuing armed activity, (d) the likely scale of the attack and the injury, loss, or damage likely to result therefrom in the absence of mitigating action, and (e) the likelihood that there will be other opportunities to undertake effective action in self-defense that may be expected to cause less serious collateral injury, loss, or damage. The absence of specific evidence of where an attack will take place or of the precise nature of an attack does not preclude a conclusion that an armed attack is imminent for purposes of the exercise of a right of self-defense, provided that there is a reasonable and objective basis for concluding that an armed attack is imminent.

9. States are required to take all reasonable steps to ensure that their territory is not used by nonstate actors for purposes of armed activities—including planning, threatening, perpetrating, or providing material support for armed attacks—against other states and their interests.

10. Subject to the following paragraphs, a state may not take armed action in self-defense against a nonstate actor in the territory or within the jurisdiction of another state ("the third state") without the consent of that state. The requirement for consent does not operate in circumstances in which there is an applicable resolution of the UN Security Council authorizing

the use of armed force under Chapter VII of the Charter or other relevant and applicable legal provision of similar effect. Where consent is required, all reasonable good faith efforts must be made to obtain consent.

11. The requirement for consent does not operate in circumstances in which there is a reasonable and objective basis for concluding that the third state is colluding with the nonstate actor or is otherwise unwilling to effectively restrain the armed activities of the nonstate actor such as to leave the state that has a necessity to act in self-defense with no other reasonably available effective means to address an imminent or actual armed attack. In the case of a colluding or a harboring state, the extent of the responsibility of that state for aiding or assisting the nonstate actor in its armed activities may be relevant to considerations of the necessity to act in self-defense and the proportionality of such action, including against the colluding or harboring state.

12. The requirement for consent does not operate in circumstances in which there is a reasonable and objective basis for concluding that the third state is unable to effectively restrain the armed activities of the nonstate actor such as to leave the state that has a necessity to act in self-defense with no other reasonably available effective means to address an imminent or actual armed attack. In such circumstances, in addition to the preceding requirements, there must also be a strong, reasonable, and objective basis for concluding that the seeking of consent would be likely to materially undermine the effectiveness of action in self-defense, whether for reasons of disclosure, delay, incapacity to act, or otherwise, or would increase the risk of armed attack, vulnerability to future attacks, or other development that would give rise to an independent imperative to act in self-defense. The seeking of consent must provide an opportunity for the reluctant host to agree to a reasonable and effective plan of action, and to take such action, to address the armed activities of the nonstate actor operating in its territory or within its jurisdiction. The failure or refusal to agree to a reasonable and effective plan of action, and to take such action, may support a conclusion that the state in question is to be regarded as a colluding or a harboring state.

13. Consent may be strategic or operational, generic or ad hoc, express or implied. The relevant consideration is that it must be reasonable to regard the representation(s) or conduct as authoritative of the consent of the state on whose territory or within whose jurisdiction the armed action in self-defense will be taken. There is a rebuttable presumption against the implication of consent simply on the basis of historic acquiescence. Whether, in any case, historic acquiescence is sufficient to convey consent will fall to be assessed by reference to all relevant circumstances, including whether acquiescence has operated in the past in circumstances in which it would have been reasonable to have expected that an objection would have been expressly declared and, as appropriate, acted upon, and there is no reason to consider that some other compelling ground operated to exclude objection.

14. These principles are without prejudice to the application of the UN Charter, including applicable resolutions of the UN Security Council relating to the use of force, or of customary international law relevant to the use of force and to the exercise of the right of self-defense by states, including as applicable to collective self-defense.

> 15. These principles are without prejudice to any right of self-defense that may operate in other circumstances in which a state or its imperative interests may be the target of imminent or actual attack.
>
> 16. These principles are without prejudice to the application of any circumstance precluding wrongfulness or any principle of mitigation that may be relevant."[97]

Prof. Ashley Deeks comments on the role that the "Bethlehem principles" may play in future debates about *jus ad bellum*:

> "We're not going to see states agree to revise the U.N. Charter's use of force provisions any time soon—and that's not necessarily a bad thing. At the same time, there is a lot of white noise about whether and how to adapt Charter principles to contemporary security challenges. Exercises such as Bethlehem's could help shift JAB-related conversations among states to a more concrete (and possibly more fruitful) plane. Whether other states balk at or acquiesce in some of these principles will tell us a lot about where states perceive the JAB to stand today. And if, as seems to be the case, the second Obama Administration intends to keep using force against al Qaeda and its affiliates in other states, then having a more robust public discussion—both internationally and domestically—about these principles seems inevitable."[98]

International Law and the Question of "Armed Conflict"

A crucial international law concept relevant to the American use of UAVs abroad is the question of whether the United States is in a state of "armed conflict" with the targets against which UAVs are being deployed. As a general matter, not all acts of self-defense are automatically "armed conflicts" to which the *jus in bello* principles (also referred to as the "international laws of armed conflict", "laws of war", or "international humanitarian law") will necessarily apply.

Conceptually, the analysis of whether or not the hostilities at hand constitute "armed conflict" is not part of the *jus ad bellum* analysis, but rather can be framed as a sort of "precursor" analysis after the use of force has been initiated, to determine whether the hostilities will be governed by *jus in bello* principles. The determination of whether the United States is in an "armed conflict" is therefore critical to determining which paradigm—the laws of war, vs. the laws of peacetime—will apply to the engagement.

As Prof. Rosa Brooks explains:

> "…Virtually everyone would agree that drone strikes are permissible during active armed conflicts, as long as they otherwise comply with the laws of war (by not targeting civilians, etc.) That's the easy answer. The problem is that we can't seem to agree on what constitutes an 'armed conflict'—and if we can't agree on that, we can't agree on what rules apply, or whether drone strikes are lawful wartime activities or unlawful murders."[99]

The Geneva Conventions identify two forms of "armed conflict": [1] "international armed conflict", which is armed conflict arising between two States[100]; and [2] armed conflict "not of an international

character" (today referred to as "non-international armed conflict" or "NIAC"), or conflict solely within the territory of one State, between the State and a non-state actor (for example: rebel groups).[101]

Contemporary understanding has been that the *jus in bello* principles apply automatically to "international armed conflict", regardless of the level of hostilities taking place between the two states. As the International Committee of the Red Cross (ICRC) puts it: "An IAC occurs when one or more States have recourse to armed force against another State, regardless of the reasons or the intensity of this confrontation."[102]

The designation of hostilities as a NIAC, however, does not occur automatically upon their commencement. Rather, authorities on international law assert that a conflict becomes a NIAC once hostilities have reached a certain threshold of violence. Prof. Kenneth Anderson notes that such analysis is grounded in customary international law:

> "Although Common Article 3 does not establish the threshold of its own application, customary international law has supplied some standards, albeit fairly flexible ones. Thus, the threshold for finding that a NIAC is under way is customarily thought to require violence that is sustained, intense, systematic, and organized…NIAC does require something more than merely fleeting, sporadic, relatively minor violence."[103]

Other international law authorities cite the International Criminal Tribunal for the Former Yugoslavia's (ICTY) *Prosecutor v. Tadic* decision for the test of whether hostilities between a state and a non-state actor rise to the NIAC level:

> "On the basis of the foregoing, we find that an armed conflict exists whenever there is a resort to armed force between States or protracted armed violence between governmental authorities and organized armed groups or between such groups within a State…"
>
> "…These hostilities exceed the intensity requirements applicable to both international and internal armed conflicts. There has been protracted, large-scale violence between the armed forces of different States and between governmental forces and organized insurgent groups."[104]

The ICRC summarizes these tests as follows:

> "On the basis of the analysis set out above, the ICRC proposes the following definitions, which reflect the strong prevailing legal opinion:"
>
> > "1. International armed conflicts exist whenever there is *resort to armed force between two or more States."*
> >
> > "2. Non-international armed conflicts are *protracted armed confrontations* occurring between governmental armed forces and the forces of one or more armed groups, or between such groups arising on the territory of a State [party to the Geneva Conventions]. The armed confrontation must reach a *minimum level of intensity* and the parties involved in the conflict must show a *minimum of organisation."* (emphasis in original)[105]

All three branches of the United States government have declared that the United States is in a state of armed conflict with al Qaeda. President Obama, then-State Department Legal Adviser Harold Koh,

and Attorney General Eric Holder, have each made such a statement, as noted above, with each relying in part on Congress's 2001 Authorization for the Use of Military Force (AUMF).

Additionally, the United States Supreme Court has also asserted that the United States is in a state of armed conflict. With respect to the treatment of detainees, the Bush administration had tried to argue before the Court in *Hamdan v. Rumsfeld* that the conflict between the United States and al Qaeda was neither an international armed conflict or a NIAC, but the Court held that the conflict between the United States and al Qaeda was indeed a NIAC, governed by Common Article 3 of the Geneva Conventions.[106]

While many scholars agree that the United States is in fact engaged in a NIAC inside Afghanistan, there is disagreement among scholars as to whether the United States is engaged in a NIAC in places such as Pakistan, Yemen, and other areas outside the so-called "hot" battlefield of Afghanistan.
Prof. Kenneth Anderson observes that the US position that an "armed conflict" exists outside of so-called "hot" battlefields has a long history in the law of war:

> "The United States does not believe that armed conflict has a 'legal geography' attached to it—the argument recently put out by some that there are war zones where the law of war applies, but anywhere else in the world, the law of war does not apply—even if the bad guys, who are lawful targets, go hide out there. Targeting adversaries in Afghanistan, for example, or other places of obvious, declared 'hot zones' of conventional hostilities—very few people find that problematic (at least if they accept for argument's sake that it's as an armed conflict)."
>
> "…The US's position, however, is that the status of being a targetable combatant or targetable terrorist (being a targetable combatant does not mean you are a lawful combatant entitled to combatant privileges, to be clear about a separate matter, only that you are a lawful target of attack) attaches to these guys wherever they go. It is both *jus ad bellum*—our rights of self defense allows us to target them as a matter of necessity—and second, as a matter of *jus in bello*, they are still being lawfully targeted during armed conflict wherever they happen to be. Although there has been a strong push by academics, activists and advocacy groups, and the International Committee of the Red Cross to redefine lawful targets so that a combatant can play farmer by day, guerrilla by night, terrorist as long as I'm wearing the vest, but only someone who can be arrested (not attacked with a drone), when I'm relaxing at the end of the day—the US does not buy any of this and never has. Same applies to geography and your location—if you are a lawful target, it follows you around wherever you go, 24/7. There's nothing in the laws of war that says anything about drawing any geographical circles around things. What it says, in fact, is that the law of armed conflict applies to places where *hostilities* are undertaken. And that might be any place, because hostilities are a matter of undertaking attack using the means and methods of armed conflict, such as hellfire missiles fired from aircraft. It's always been seen as an important principle that where hostilities are undertaken, the law of war serves to protect civilians in those cases, but it also authorizes application of the laws of war…"
>
> "…The US's position has been the traditional one in the law of war, the really long-term traditional one: Where you undertake hostilities, the law of war applies. And you may be undertaking hostilities lawfully in the *jus ad bellum* or unlawfully in the *jus ad bellum*—meaning, you

> might be violating the rights of a neutral sovereign and its territorial integrity, or maybe not—but that's a separate question of the *jus ad bellum*. Either way, the party that undertakes hostilities has to do so in accordance with the laws of war—but it is also allowed to do so applying the *jus in bello* rules governing the conduct of hostilities."[107]

Prof. Robert Barnidge, Jr. similarly argues with respect to whether there are geographic limits on armed conflict:

> "…To the extent sufficient 'nexus' exists between the armed conflict that ensued between the United States and the Taliban and its Al Qaeda allies in the wake of September 11, and the acts of a person who participates in hostilities, whether by his or her very nature, as a combatant or directly, as a civilian, then it can be said that the 'fight,' as a matter of law, 'follows the fighter.' This was the case during the Second World War, when the United States Army Air Force shot down and killed Japanese Admiral Isoroku Yamamoto, the planner of the attack on Pearl Harbor, when he was flying to Bougainville Island on a planned inspection of Japanese soldiers, and it remains the rule today."[108]

Prof. Peter Margulies argues that al Qaeda, even as a geographically dispersed organization, merits the designation as an "organized armed group" under the laws of armed conflict:

> "One need not read the modern jurisprudence defining an [organized armed group] as being limited to groups with headquarters, fully functioning logistics or ironclad discipline. While the ICTY decisions include language setting out these criteria, the facts of the cases are actually far more ambiguous…The ICTY jurisprudence and the analysis of many commentators point toward a more pragmatic approach."
>
> "That said, terrorist organizations often reveal surprisingly strong elements of organization. Like other entities, terrorist groups devise mechanisms to deal with the problem of agency costs. They monitor, assess and document performance of their personnel, and make appropriate changes when needed. These measures exist even when they appear to endanger the groups' security."
>
> "The versatile approach to organization that marks terrorist groups within a State also holds true for transnational networks such as Al Qaeda. Al Qaeda operates in a synergistic fashion with regional groups. Many groups have received training from Al Qaeda's core feeder sources of schools and camps, and have sworn allegiance to Al Qaeda to enhance their appeal and access to resources. Direct operational control is rarely present. However, strategic influence, including a focus on targeting Western interest, is common. When such strategic influence can be shown, the definition of an OAG is sufficiently flexible to permit targeting across borders."[109]

Steven Groves of the Heritage Foundation argues that the hostilities between the United States and al Qaeda do in fact meet the standard articulated by the ICTY in *Tadic,* whether such hostilities are taking place on the "hot" battlefield of Afghanistan or outside of it:

> "The threshold of hostilities between the United States and al-Qaeda has been high enough that it may be said that a NIAC continues between the two belligerents. In Afghanistan, the

> United States, its NATO allies, and Afghan forces continue to fight al-Qaeda and Taliban militants, many of whom have moved their operations into the frontier region of Pakistan. Operatives and militants who have sworn allegiance to al-Qaeda continue to plan attacks on the United States from Pakistan, Yemen, and the Sahel region of North Africa."
>
> "Indeed, since September 11, the United States has thwarted more than 50 terrorist plots, many of which emanated from Afghanistan, Pakistan, and Yemen. These attacks were planned and financed by al-Qaeda and its associates and originated from countries beyond the 'hot' battlefield of Afghanistan. Terrorists who desire to execute attacks within the United States have sought and received training in Pakistan, including Jose Padilla, Uzair Parach, Hamid Hayat, Bryant Neal Vinas, Najibullah Zazi, and Faisal Shahzad. Both the 'cargo planes bomb plot' to bomb Chicago-area synagogues and the attempt by 'Christmas Day Bomber' Umar Farouk Abdulmutallab were hatched in Yemen."[110]

Critics, however, contend that the United States is not, and perhaps cannot be, in a state of "armed conflict" with al Qaeda outside of the "hot" battlefield of Afghanistan. Significantly, one such critic is Ben Emmerson, United Nations special rapporteur on counterterrorism and human rights, who is himself leading a United Nations Human Rights Council investigation into UAV strikes in counter-terrorism operations, "with a view to determining whether there is a plausible allegation of unlawful killing."[111] Emmerson stated two months after the announcement of this investigation:

> "I'm not aware of any state in the world that currently shares the United States' expansive legal perspective that it is engaged in a global war—that is to say a non-international armed conflict with al Qaeda and any group associated with al Qaeda, wherever they are to be found, that would therefore lawfully entitle the United States to take action involving targeted killing wherever an individual is found."[112]

Other critics are equally skeptical. As Prof. Mary Ellen O'Connell framed her concerns in testimony before the House of Representatives in April of 2010:

> "Armed conflict, however, is a real thing. The United States is currently engaged in an armed conflict in Afghanistan. The United States has tens of thousands of highly trained well-organized opponent that is able to hold territory. The situation in Afghanistan today conforms to the definition of armed conflict in international law. The International Law Association's Committee on the Use of Force issued a report in 2008 confirming the basic characteristics of all armed conflict: 1.) the presence of organized armed groups that are 2.) engaged in intense inter-group fighting."
>
> "The fighting or hostilities of an armed conflict occurs within limited zones, referred to as combat or conflict zones. It is only in such zones that killing enemy combatants or those taking a direct part in hostilities is permissible."
>
> "Because armed conflict requires a certain intensity of fighting, the isolated terrorist attack, regardless of how serious the consequences, is not an armed conflict. Terrorism is crime. Members of al Qaeda or other terrorist groups are active in Canada, France, Germany, Indonesia, Morocco, Saudi Arabia, Spain, the United Kingdom, Yemen and elsewhere. Still, these coun-

> tries do not consider themselves in a war with al Qaeda. In the words of a leading expert on the law of armed conflict, the British Judge on the International Court of Justice, Sir Christopher Greenwood:"
>
> > "In the language of international law there is no basis for speaking of a war on Al-Qaeda or any other terrorist group, for such a group cannot be a belligerent, it is merely a band of criminals, and to treat it as anything else risks distorting the law while giving that group a status which to some implies a degree of legitimacy.'"[113]

Prof. Rosa Brooks, in April 2013 testimony before the Senate Judiciary Committee, framed her concern as one of how combatants can be properly identified in a setting outside that of a "hot" battlefield:

> "Once you take targeted killings outside hot battlefields, it's a different story. The Obama Administration is currently using drones to strike terror suspects in Pakistan, Somalia, Yemen, and –perhaps—Mali and the Philippines as well. Defenders of the administration's increasing reliance on drone strikes in such places assert that the US is in an armed conflict with 'al Qaeda and its associates,' and on that basis, they assert that the law of war is applicable—in any place and at any time—with regard to any person the administration deems a combatant."
>
> "The trouble is, no one outside a very small group within the US executive branch has any ability to evaluate who is and who isn't a combatant. The war against al Qaeda and its associates is not like World War II, or Libya, or even Afghanistan: it is an open-ended conflict with an inchoate, undefined adversary (who exactly are al Qaeda's 'associates'?). What is more, targeting decisions in this nebulous 'war' are based largely on classified intelligence reporting. As a result, Administration assertions about who is a combatant and what constitutes a threat are entirely non-falsifiable, because they're based wholly on undisclosed evidence. Add to this still another problem: most of these strikes are considered covert action, so although the US sometimes takes public credit for the deaths of alleged terrorist leaders, most of the time, the US will not even officially acknowledge targeted killings."[114]

Brooks goes on to assert that the "nebulous" nature of the war that the Obama administration is prosecuting raises several questions as to how the "armed conflict" model is to be applied:

> "This leaves all the key rule-of-law questions related to the ongoing war against al Qaeda and its 'associates' unanswered. Based on what criteria might someone be considered a combatant or directly participating in hostilities? What constitutes 'hostilities' in the context of an armed conflict against a non-state actor, and what does it mean to participate in them? And just where is the war? Does the war (and thus the law of war) somehow 'travel' with combatants? Does the US have a 'right' to target enemy combatants anywhere on earth, or does it depend on the consent of the state at issue? Who in the United States government is authorized to make such determinations, and what is the precise chain of command for such decisions?"
>
> "I think the rule of law problem here is obvious: when 'armed conflict' becomes a term flexible enough to be applied both to World War II and to the relations between the United States and 'associates' of al Qaeda such as Somalia's al Shabaab, the concept of armed conflict is not very useful anymore…"[115]

Some analysts point out that, the debate over whether the United States is engaged in "armed conflict" with al Qaeda notwithstanding, it is the prerogative of the United States to make the final determination as to whether it is engaged in "armed conflict." As Heritage's Steven Groves states:

> "…As a sovereign and independent nation, the United States may determine for itself whether it is at war with another nation, or, in this case, with a transnational terrorist organization."[116]

Philip Zelikow, former Executive Director of the 9/11 Commission and then-member of President Obama's Intelligence Advisory Board, framed it this way during the Q&A session of a Bipartisan Policy Center panel in May, 2013:

> "…I have to observe, that countries under attack get to decide whether they are at war or not. Whether or not that's a legal principle, I'll make that observation as an historian. Countries under attack will decide whether they are at war or not, and if they think they are at war, they will act accordingly."[117]

International Law—Outlining *Jus In Bello*

Clearly there is a range of opinion as to whether the context in which the United States is deploying UAVs to target terrorists abroad is in fact an "armed conflict". If it is an armed conflict, however, then the *jus in bello* principles apply to the warfighting *operations* being undertaken within that armed conflict, by either side. Put differently: *Jus in bello* principles seek to address what constitutes lawful targeting vs. unlawful targeting during ongoing armed conflict, rather than the question of whether the resort to hostilities between two state actors (or between a state and non-state actor) was lawful in the first place.

The principles of "necessity" and "proportionality" are core concepts within *jus in bello*, though they are applied somewhat differently from their *jus ad bellum* counterparts discussed above. Also included *jus in bello* are the concepts of "distinction" and "humanity". The United States military adheres to all of these *jus in bello* principles—while adherence to some of these principles is owed to the United States being party to a relevant treaty, adherence to others is derived either from the U.S. military's recognition of such principles as customary international law, or from the U.S. military's decision to adhere to such principles as a matter of policy.[118]

The principle of "necessity" in the *jus in bello* context refers to the obligation to use the force required to accomplish the mission at hand. The United States is party to the 1907 Hague Convention IV, which frames the necessity requirement as one that forbids belligerents "To Destroy or seize the enemy's property, unless such destruction or seizure be imperatively demanded by the necessities of war."[119]

The principle of "distinction" refers to the requirement to distinguish combatants from civilians during wartime, and that "military objectives be distinguished from protected property or protected places."[120] The U.S. Army *Operational Law Handbook* refers to this concept as a "'grandfather' principle" of the law of armed conflict.[121]

The principle of "proportionality" refers to the obligation to balance the military advantage to be gained from attacking a target against the projected loss of civilian life or property resulting from the attack, and requires that the latter not be excessive in relation to the former.[122] The United States government has previously taken the position that although the United States is not a party to Additional Protocol I of the Geneva Conventions (from which the Army Operational Law Handbook draws its definition of "proportionality"), the United States nonetheless views the proportionality doctrine as customary international law.[123]

Finally, the principle of "humanity" refers to the requirement of military forces not to inflict unnecessary suffering, including upon opposing military forces, whether through the use of weapons specifically designed to cause unnecessary suffering, or through the use of otherwise permissible weapons in a manner that causes unnecessary suffering. Derived from the 1907 Hague Convention IV, the principle is reiterated in the U.S. Army *Operational Law Handbook*.[124]

Against this backdrop of *jus in bello* principles, to which the United States military has historically adhered, President Obama in his May 2013 address at National Defense University—in the course of acknowledging that there have indeed been civilian casualties resulting from UAV strikes in Pakistan—articulated the standards under which he believes the United States needs to operate with respect to UAV strikes on terrorist targets during wartime:

> "In the Afghan war theater, we must—and will—continue to support our troops until the transition is complete at the end of 2014. And that means we will continue to take strikes against high value al Qaeda targets, but also against forces that are massing to support attacks on coalition forces. But by the end of 2014, we will no longer have the same need for force protection, and the progress we've made against core al Qaeda will reduce the need for unmanned strikes."
>
> "Beyond the Afghan theater, we only target al Qaeda and its associated forces. And even then, the use of drones is heavily constrained. America does not take strikes when we have the ability to capture individual terrorists; our preference is always to detain, interrogate, and prosecute. America cannot take strikes wherever we choose; our actions are bound by consultations with partners, and respect for state sovereignty."
>
> "America does not take strikes to punish individuals; we act against terrorists who pose a continuing and imminent threat to the American people, and when there are no other governments capable of effectively addressing the threat. And before any strike is taken, there must be near-certainty that no civilians will be killed or injured—the highest standard we can set."[125]

Importantly, the White House released a "fact sheet" to accompany the President's NDU address, which further articulated U.S. policy governing UAV strikes. In many respects the fact sheet reiterated what President Obama stated above. However, the fact sheet also included a footnote that further informs the Obama administration's interpretation of its *jus in bello* obligations:

> "Non-combatants are individuals who may not be made the object of attack under applicable international law. The term 'non-combatant' does not include an individual who is part of a belligerent party to an armed conflict, an individual who is taking a direct part in hostilities, or

> an individual who is targetable in the exercise of national self-defense. Males of military age may be non-combatants; it is not the case that all military-aged males in the vicinity of a target are deemed to be combatants."[126] (emphasis in original)

International Law—Is the United States in Compliance with *Jus In Bello* Principles?

As is the case with *jus ad bellum* principles, there is a range of opinion as to whether the United States, with respect to its deployment of UAVs abroad for targeting terrorists, has been in compliance with *jus in bello* principles.

In addition to defending UAV strikes on *jus ad bellum* grounds, key members of the Obama administration—prior to the President's National Defense University address in May, 2013—have also defended UAV strikes as in compliance with *jus in bello* requirements. Director of Central Intelligence John Brennan made the following case in April, 2012:

> "Targeted strikes conform to the principle of necessity—the requirement that the target have definite military value. In this armed conflict, individuals who are part of al-Qa'ida or its associated forces are legitimate military targets. We have the authority to target them with lethal force just as we targeted enemy leaders in past conflicts, such as German and Japanese commanders during World War II."
>
> "Targeted strikes conform to the principle of distinction—the idea that only military objectives may be intentionally targeted and that civilians are protected from being intentionally targeted. With the unprecedented ability of remotely piloted aircraft to precisely target a military objective while minimizing collateral damage, one could argue that never before has there been a weapon that allows us to distinguish more effectively between an al-Qa'ida terrorist and innocent civilians."
>
> "Targeted strikes conform to the principle of proportionality—the notion that the anticipated collateral damage of an action cannot be excessive in relation to the anticipated military advantage. By targeting an individual terrorist or small numbers of terrorists with ordnance that can be adapted to avoid harming others in the immediate vicinity, it is hard to imagine a tool that can better minimize the risk to civilians than remotely piloted aircraft."
>
> "For the same reason, targeted strikes conform to the principle of humanity which requires us to use weapons that will not inflict unnecessary suffering. For all these reasons, I suggest to you that these targeted strikes against al-Qa'ida terrorists are indeed ethical and just."[127]

Then-State Department Legal Advisor Harold Koh also asserted that the United States is in compliance with *jus in bello* requirements:

> "…this Administration has carefully reviewed the rules governing targeting operations to ensure that these operations are conducted consistently with law of war principles, including:"
>
> "First, the principle of distinction, which requires that attacks be limited to military objectives and that civilians or civilian objects shall not be the object of the attack; and"

> "Second, the principle of proportionality, which prohibits attacks that may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, that would be excessive in relation to the concrete and direct military advantage anticipated."
>
> "In U.S. operations against al-Qaeda and its associated forces-- including lethal operations conducted with the use of unmanned aerial vehicles-- great care is taken to adhere to these principles in both planning and execution, to ensure that only legitimate objectives are targeted and that collateral damage is kept to a minimum."[128]

Various legal experts have agreed that the Obama administration's targeting practices with respect to UAVs have been in compliance with *jus in bello* requirements. The Heritage Foundation's Steven Groves writes regarding necessity and distinction:

> "The publicly available information on the Obama Administration's targeting analysis indicates that the U.S. military and CIA adhere to the principles of distinction and necessity…"
>
> "Over time the process for selecting targets evolved into a "next generation" targeting list known as the 'disposition matrix.' The National Counterterrorism Center (NCTC) developed the matrix to 'augment' the separate, but overlapping lists developed by the Pentagon and the CIA, resulting in 'a single, continually evolving database in which biographies, locations, known associates and affiliated organizations are all catalogued.' The targeting criteria focus on al-Qaeda's operational leaders and key facilitators, and the names are submitted to a panel of National Security Council officials for approval. Targeting lists are reviewed regularly at meetings at NCTC headquarters attended by officials from the Pentagon, State Department, and CIA."
>
> "If accurate, press accounts regarding the 'disposition matrix' describe a process that appears to satisfy the principles of distinction and necessity in regard to targeted drone strikes. This is to say that, by positively identifying a potential target as an al-Qaeda combatant and continually assessing whether the target poses a threat, the process distinguishes the target from the civilian population and establishes the military necessity for targeting the combatant."[129]

Groves continues regarding proportionality:

> "…[W]ithout access to the decision-making process regarding a particular drone strike—a process that is highly classified—it is difficult to assess the extent to which the decision to strike adhered to the principle of proportionality.
>
> "That said, by their nature, drone strikes are designed to be precise attacks on individual targets of military significance as opposed to indiscriminate attacks, such as carpet bombing a military installation situated alongside civilian buildings or an artillery barrage on an armored column travelling through an area known to be populated by civilians. That is not to say that drone strikes have not caused civilian casualties. They have. However, no evidence indicates that U.S. armed forces or CIA officers, in carrying out targeted strikes, have disregarded the principle of proportionality. While civilian deaths have reportedly resulted from drone strikes, there is no indication that U.S. personnel ordered such strikes without regard for civilian casualties or with

> foreknowledge that civilian casualties would greatly exceed the military advantage advanced by the strike."[130]

Prof. Kenneth Anderson notes that assuming agreement with the US position that it is engaged in an armed conflict, US tactics are ensuring greater compliance with *jus in bello* rules:

> ""If you accept the US's position that we are in an armed conflict, and that is has no geographical restrictions per se, then even if we are somehow massively violating the UN Charter in places where we use drones without sovereign consent, our precision technologies allow targeting that is vastly more discriminating and protective of civilians than has been technologically possible in the past and enables targeting that able to minimize collateral damage and civilian harm far beyond what is actually required by the *in bello* rules of targeting in many cases."[131]

Anderson goes on to explain the nature of the divide between the United States government and its critics with respect to what it means to take "direct part in hostilities":

> "The White House released a fact sheet that accompanied the President's May 23rd speech at National Defense University. There is a footnote at the end explaining the US view of who can be targeted via targeted killing methods. It says that for purposes of targeted killing using drones, outside of a conventional war theater (which, by the way, has no legal meaning, though the United States, for policy purposes, makes this distinction) the US will regard lawful targets as including, first of all, those who are part of, have membership in, an organized armed group within the meaning of international humanitarian law."
>
> "Second, however, the Fact Sheet says that US regards as lawfully targetable civilians who take 'direct part in hostilities'. Everybody agrees that this is a proper interpretation of the law— except that the international community is sharply divided over the question of what *constitutes* taking 'direct part in hostilities' for purposes of being a lawful target. The ICRC and the critics in the advocacy community assert that in order to be "taking direct part in hostilities," you have to be either engaged at that moment in some kind of active hostilities (such as firing a gun) or alternatively, you cannot be targeted unless you are someone who has a 'continuous combat function', twenty-four/seven. Otherwise, in the view of the leading advocacy groups, you can be the bomb-maker who comes up with al Qaeda's new bomb out in Yemen somewhere—the underwear design that nearly brought down the plane over Detroit in 2009, or the anus bomb that this Al Qaeda bomb maker designed for his brother who used it to try and blow up a Saudi official, or the reported new designs of explosives embedded in a body cavity. On the view of many in the advocacy community, the bombmaker is not targetable 24/7 because he does not have a continuous combat function. Wiring up the bomb, yes, watching TV at home, no, even if he is alone in the house."
>
> "From the US standpoint, that is utterly unacceptable. It is also unacceptable to most other militaries. When the ICRC proposed this standard at a meeting a couple of years ago, over half of its senior military participants from NATO, from Australia, from New Zealand, basically any military that has a serious engagement with military law, walked out—refused to sign on to the document."[132]

Anderson also explains the United States government's position on whether an individual who is voluntarily present near enemy belligerents is in fact deemed to be taking direct part in hostilities:

> "The United States also regards anybody who is a *voluntary* human shield, as taking direct part in hostilities, even if they are not already targetable because they are in fact a 'member' or part of the organized armed group. So if you go stay at a known Taliban safe house, to have coffee with your friends but incidentally showing the American drones that there are people who are not necessarily 'members' of the organized armed group, on a day when the US blows it up with a missile, and you are killed, the US regards you as having voluntarily been there, and moreover as essentially somebody shielding the place with your civilian status. The US will not regard your death as collateral damage, but instead as the killing of a civilian taking direct part in hostilities, meaning the equivalent of 'combatant.' Many in the international community might think instead that you were collateral damage, perhaps lawful collateral damage depending on the circumstances of the attack, but not taking direct participation in hostilities in virtue of your presence."
>
> "So if you are a civilian who is not actually a member of the organized armed group, but you decide to be there, then your participation is voluntary and you are regarded as taking direct part in hostilities, and you therefore will not be counted as collateral damage. Now, if you are a woman or children below a certain age, the US simply deems you as unable to voluntarily decide to be there, given the cultural circumstances of these places. The women and children are regarded as involuntary human shields, and therefore *not* taking direct part in hostilities. If they are killed, they are regarded as true civilian non-combatants—and whether their deaths are lawful or not depends on a reasonable commander's judgment of the military advantage of the attack versus the civilian harms. But they are counted as collateral damage."
>
> "Secondary targeting of rescuers pops up all the time. The US privately says, at least as I understand it as an outsider, 'There was a period early on where we could not sufficiently identify when we were going in to re-target, and we undoubtedly killed some people who were themselves non-combatants, who were going in to engage in rescue operations.' But their view now is that they have sufficiently good sensor abilities from the Predators that when they come back in and see there are people going into the car that blew up, that those people are not neutral humanitarian rescuers. If we leave aside the complicating case of mixed lawful targets and non-combatants, so that the rescuers and the original targets are all members of the organized group, they are all lawful targets. We can attack them once, twice, any number of times because we're trying to kill them. We might not have thought it worth attacking all the members of the group present, but we are lawfully entitled to do so. If they try to rescue the people we hope we have killed, we are entitled to attack them too. They are people who are, in the view of the US, either members of the organized armed group or civilians already taking direct part in hostilities, making it perfectly lawful to strike at them. The people initially attacked are people we wanted to kill, and we don't want them to survive. We are killing more lawful targets. My guess is that the US will eventually refine and limit this as a matter of policy, though not its view of the underlying law."[133]

Charles Dunlap Jr., a former deputy judge advocate general of the United States Air Force, adds regarding who may be lawfully targeted (though not addressing UAVs specifically):

> "…Under the law of armed conflict, there is no obligation before using lethal force to find that enemy combatants are about to strike. Nor is it legally necessary to try to capture them…
>
> "In armed conflict, combatants can be attacked at any time and wherever found. Status as a 'senior operational leader' is not a targeting requirement either. For example, foot soldiers can be lawfully bombed even as they sleep in their barracks away from their weapons.
>
> "…the United States has long insisted it is in an armed conflict with al-Qaida — something, incidentally, al-Qaida has never denied. Under the law of armed conflict, this means that those members of an organized armed group like al-Qaida who are involved in continuous combat — including plotting terrorist acts — can be struck without warning, just like any other combatant in war."[134]

Some analysts have also pointed out that *jus in bello* principles actually *require* the use of UAVs given their accuracy relative to other war-fighting technologies. As Prof. John Yoo comments:

> "As an issue of *jus in bello*, drones don't strike me as much of a problem. They raise the same questions as aerial warfare…*Jus in bello* requires that a nation at war only use that force which is reasonably necessary to achieve a military objective, where the destruction/death caused is proportionate to that end, and which reasonably discriminates between civilians and combatants. The greater precision allowed by newer technology, such as [precision guided munitions] and drones, means that the U.S. can do a better job of using less force to achieve a military goal with less collateral damage to civilians, and arguably the U.S. under the *jus in bello* rules is required to use that technology when it is available and reasonable to achieve its missions."[135]

Prof. Michael Schmitt comments further:

> "The brouhaha over the *jus in bello* issues implicated by drone strikes is equally misguided. Precisely the same law applies to drone operations as those conducted using other weapons and weapon systems. The one area where drones are of particular relevance is with regard to the requirement to take precautions in attack. Here a drone must be used when reasonably available and its use is operationally feasible, but only if such use would minimize likely collateral damage without sacrificing military advantage. Conversely, drones may not be used when other means or methods of warfare that would result in less collateral damage with an equivalent prospect of mission success are available."[136]

Some analysts have asserted, however, that the Obama administration's use of UAVs to target terrorists abroad has not been in compliance with *jus in bello* principles. Gabor Rona of Human Rights First has conveyed the view that the application of a "co-belligerency" concept to a non-international armed conflict is problematic with respect to the *jus in bello* principle of distinction:

> "It is pretty clear that during the period of time preceding the President's National Defense University address, the Obama administration's use of UAVs had not been in compliance with *jus in bello*. The evidence of that comes from what scant explanations there have been from US

officials about their interpretation of their legal authority. I'm referring specifically to the 'associated forces' concept contained in the 2001 Authorization for the Use of Military Force. there really is no such thing as associated forces in non-international armed conflict under international humanitarian law. What the US is doing in invoking this term is to create an analogy to the law of international armed conflict's concept of co-belligerency. And that concept simply does not easily translate from international to non-international armed conflict. In international armed conflict, you know who the parties are—they are states. It is very easily identifiable whether something is or isn't a state…we know who the states are, we know they have flags, we know they have seats in the general assembly. They are identifiable."

"In non-international armed conflict, we're talking explicitly and necessarily about non-state actors, about groupings of individuals that do not necessarily distinguish themselves from the civilian population, which the laws of war require. We're talking about situations in which the most fundamental principle of international humanitarian law (IHL), the principle of distinction, is much more difficult to apply. And if you take the view of IHL that I think should be taken, then what is of paramount importance is the protection of civilians. The idea that you can take this concept of co-belligerency, which was born in the idea of international armed conflict, and then simply transpose it into wars involving non-state actors where the distinction between combatant and civilian is sometimes unclear and amorphous, is simply a recipe for increasing the civilian harm."

"But I think there may be a couple of more even broader reasons for concern. One is that even in Afghanistan, even in cases where the US is obviously fighting in a battlefield, in a traditional battlefield environment, it is not at all clear that it's limiting itself to targeting members of armed forces of the enemy or persons who are directly participating in the armed conflict. Because those are the legal limits to targeting authority."

"There are also indications—and this has been said by US officials, John Brennan said it before he became CIA director—that the US is authorized to target any member of al-Qaeda. But what do we mean when we say 'member of al-Qaeda'? To my knowledge, they don't carry laminated membership cards in their wallets. Is a' member of al-Qaeda' anyone who happens to be at an al-Qaeda training camp? Well, I suppose that would include women and children. I suppose that it would include drivers who do not participate in hostilities. I suppose it could include financiers. And the United States has always taken the position, I think correctly so, that the American taxpayer shouldn't be a legitimate target just because they are financing the US's armed conflict. But we seem to have a double standard. And that standard is hidden, actually, in the pronouncement that we would consider any member of al-Qaeda to be targetable, without real reference to what we mean by membership. In fact, the applicable international humanitarian law on the subject says only members of the armed forces of the enemy are targetable. That's an important distinction that I think the US has not applied. So the two major areas in which I think the US is probably out of compliance with applicable international law is with reference to this so-called 'associated forces' concept and also with reference to the difference between a correct IHL statement, namely that members of the armed forces of the enemy

> are targetable as opposed to the less accurate US statement which is members of al-Qaeda are targetable."[137]

Rona goes on to assert that the Obama administration's targeting policies also do not appear consistent with the *jus in bello* principle of proportionality:

> "On the question of adherence to the 'proportionality' requirement: If you designate every suspected terrorist or every suspected insurgent to be targetable, then you are not only masking the possibility that individuals who have been killed or maimed are in fact civilians. You can be a terrorist or an insurgent, but that doesn't necessarily mean you're targetable under the laws of war. To be targetable under the laws of war, you have to be either [1] a member of the armed forces of the enemy or [2] civilian directly participating in hostilities. But if you use broader, more amorphous, and—perhaps most importantly—non-terms-of-art in order to describe who you're killing, then 'terrorist' actually isn't the legal term. 'Insurgent', I don't really know what that means. Then the likelihood is very great that people who the law of war considers to be civilian and therefore deserving of protection from hostilities are in fact being labeled as combatants or targetable individuals. Of course, if that happens, then it is doing injustice to the numbers game that is the manifestation of the principle of proportionality. In other words, you're actually killing civilians, but you do not recognize them as civilians and therefore sidestepping the principle of the proportionality obligation."[138]

Prof. Amos Guiora comments:

> "When John Brennan talks about 'signature strikes' in the milieu of terrorists, and says there's been no collateral damage in the Obama drone policy, those phrases are disingenuous at best. Brennan's articulation of Obama's drone policy reflects, from my perspective, a drone policy that's illegal, is immoral, and I doubt whether it's effective. Other than that, it's fine."[139]

Prof. Mary Ellen O'Connell reiterates the view that the manner in which the United States is undertaking UAV strikes violates *jus in bello* principles of necessity and proportionality:

> "…This is not a situation like the invasion of Iraq where U.S. forces met large, organized units of the Iraqi Army outside Baghdad. Outside Baghdad, using drones to launch missile attacks might in fact have protected civilians from bombs dropped from airplanes flying at high altitudes. But can drones ever be precise enough to comply with the rule of distinction in the situation of Western Pakistan? Suspected militant leaders wear civilian clothes. Even the sophisticated cameras of a drone cannot reveal with certainty that a suspect being targeted is not a civilian…"
>
> "…Even when a drone operator is reasonably certain in the circumstances that his or her target is not a civilian, the United States is obligated to take all feasible precautions to minimize injury to civilians that might occur as an incident of targeting a combatant. Little information is available as to whether the U.S. takes *any* precautions when carrying out drone strikes."
>
> "In addition to distinction, the U.S. must also respect the principles of necessity, proportionality and humanity in carrying out drone attacks. 'Necessity' refers to military necessity, and the obligation that force is used only if necessary to accomplish a reasonable military objective.

> 'Proportionality' prohibits that 'which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to concrete and direct military advantage anticipated.' These limitations on permissible force extend to both the quantity of force used and the geographic scope of its use."
>
> "…[F]ar from suppressing militancy in Pakistan, indiscriminate drone attacks are fueling the interest in fighting against the United States. This impact makes the use of drones difficult to justify under the terms of military necessity. Most serious of all, perhaps, is the disproportionate impact of drone attacks. Fifty civilians killed for one suspected combatant killed is a textbook example of a violation of the proportionality principle."[140] (emphasis in original)

International Law—Trends in *Jus In Bello*

UAV Technology and Civilian Casualties

In identifying the possible trends in the development of *jus in bello* relevant to UAVs, an appropriate starting point is President Obama's National Defense University address from May, 2013. In what was arguably a departure from previously understood necessity and proportionality doctrine, President Obama then stated in part:

> "Beyond the Afghan theater, we only target al Qaeda and its associated forces. And even then, the use of drones is heavily constrained. America does not take strikes when we have the ability to capture individual terrorists; our preference is always to detain, interrogate, and prosecute. America cannot take strikes wherever we choose; our actions are bound by consultations with partners, and respect for state sovereignty."
>
> "America does not take strikes to punish individuals; we act against terrorists who pose a continuing and imminent threat to the American people, and when there are no other governments capable of effectively addressing the threat. *And before any strike is taken, there must be near-certainty that no civilians will be killed or injured—the highest standard we can set."*[141] (emphasis added)

As noted above, the Army Operational Law Handbook frames "proportionality" as the requirement that the projected loss of civilian life or property not be excessive in relation to the military advantage to be gained from an attack—a concept that the US government views as customary international law. Some analysts have commented that when President Obama asserted that "there must be near-certainty that no civilians will be killed or injured", and acknowledged that as the "highest standard we can set", this went beyond proportionality doctrine as traditionally understood. As Prof. John Yoo puts it:

> "But worse, if the U.S. publicly announces that it will not attack terrorists if civilian casualties will result, terrorists will always meet and travel in entourages of innocent family members and others — a tactic adopted by potential targets of Israeli targeted killings in the West Bank. *Neither of these standards — near certainty of the identity of the target or of zero civilian casualties*

> — *applies to wartime operations.* President Obama is placing impossible conditions on the use of force for what can only be assumed to be ideological reasons."[142] (emphasis added)

Prof. Kenneth Anderson comments that President Obama's standard, as articulated, is not really a proportionality standard at all:

> "President Obama articulated a standard so far beyond what the law requires—a near certainty that no civilian will be killed? Even if it's bin Laden, standing there in the circle? It's not a proportionality standard at that point. It's an absolute standard that basically says no one will ever be killed unless on the waiver of the president. That's a policy standard, and one that I think is deeply unwise because we can't possibly meet it."[143]

Steven Groves of the Heritage Foundation comments that while President Obama's standard did indeed go beyond what *jus in bello* has traditionally required, he may have been conveying the operational aspirations of the US military rather than deliberately attempting to alter the *jus in bello* calculus:

> "I do think that the standard President Obama described went above and beyond what the international standards of proportionality require because the proportionality standard speaks nothing of percentages. You could have a target where you have, say, thirty foreign fighters about to launch an attack but they're surrounded by another thirty civilian attendants—are you really going to pass up that strike, right on the cusp of an attack, because you're also, for sure, going to wind up killing more than zero percent of the civilians in that strike zone? Of course not. And no one, including the president, would say otherwise. But I think he might have been just repeating what his own military leaders were saying, which is to say: 'That's what we shoot for. If we can't attain it, we give good reasons why.'"[144]

Gabor Rona of Human Rights First also notes that the standard President Obama articulated at National Defense University goes beyond what proportionality is understood to require. Rona posits, however, that President Obama's intent was to apply his "zero-civilian-casualties" formulation outside of armed conflict:

> "I think it has become clear that he was not talking about Afghanistan and neighboring Pakistan there. He was not talking about armed conflict contexts. What he was saying was that in pure *jus ad bellum* contexts that do not trigger the *jus in bello*, we will apply this standard under which we will not conduct a strike unless we are reasonably sure or almost certainly sure that there would be no civilian casualties. He did not mean or say that such a policy also applies in Afghanistan, in neighboring Pakistan—or for that matter, what the administration considers to be associated forces of al-Qaeda in Yemen or Mali or anywhere else…The president's pronouncement of virtually zero tolerance for civilian casualties is not required by international humanitarian law, and I think he did not mean it to apply in situations in which the US deems itself to be in an armed conflict."[145]

However, Prof. Amos Guiora, author of *Legitimate Target*, does not see President Obama's formulation of proportionality as going beyond what proportionality doctrine already requires:

> "I did not find that statement to be earth-shattering—not as I understand proportionality and certainly not as I was involved in implementing proportionality [as an official in the Israeli Defense Forces]. President Obama does not get a pat on the back from me."[146]

It remains to be seen whether President Obama's articulation of an arguably higher proportionality standard translates on its own into more restrictive American use of UAVs on the ground. The inclination to "tighten" the proportionality standard in warfare, however, is not limited to a line in President Obama's remarks. As has been observed, the advances in UAV technologies are likely to catalyze an ever-increasing expectation that, commensurate with the growth in precision and other capabilities, there should be correspondingly fewer civilian casualties resulting from UAV strikes.

The Heritage Foundation's Steven Groves observes that enhanced intelligence will likely have an effect on expectations of adherence to proportionality requirements:

> "The law has not changed, but acceptable norms and standards of adhering to the law may change, based on enhanced intelligence. We've seen this happen—look at the difference between World War II and Vietnam, between Vietnam and the Gulf War, the Gulf War and the post-9/11 war on terrorism. The law, arguably, has remained the same throughout those conflicts. But what counts as responsible adherence to the law has necessarily changed with technology in each of those conflicts."[147]

Gabor Rona of Human Rights First asserts that international humanitarian law demands more from the more technically capable belligerents to an armed conflict:

> "The more sophisticated are the technical capabilities of a party to an armed conflict, the more the law demands of them. There is nothing wrong with asymmetric armed conflict, and the laws of war could care less whether one party has overwhelmingly greater military capacity than another. So in that sense, IHL [(international humanitarian law)] does not care about whether the parties are equal or unequal. What IHL does care about is that the parties to an armed conflict equally apply the principles and the rules in relationship to their capacities."
>
> "Let's say Hezbollah, a party to an armed conflict, is using shoulder-mounted missiles to fire into Israel. If they are actually targeting civilians, then that is a war crime. If they are targeting, say, Israeli military facilities, and those shoulder-mounted launchers do not have the kind of accuracy capacity that, say, the Israelis do with their laser guided missiles, then less is going to be demanded of Hezbollah than of Israel. Likewise, if the united States has the capacity to implement the principle of distinction in ways greater this year than they were last year, or two years ago, because of advances in technology, then it has the obligation to do so, and the degree of caution that was sufficient two years ago is no longer sufficient. So it is relative to the individual party's capacity that the measure of compliance with the principles rules of IHL is made, not in reference to the capacities or the nature of compliance of the other party to the armed conflict."[148]

Prof. Kenneth Anderson adds that the United States will likely continue to develop more advanced technology to further avoid civilian casualties, but that such development becomes increasingly difficult as adversaries continue themselves to violate the laws of armed conflict:

> "Why is it that the US got into any of this kind of roboticized stuff in the first place, since 9/11? The answer is because the adversary violates the law of war with complete impunity, hiding among civilians, using them as shields. So in other words, their method of fighting violates the laws of war, but the US is not willing—properly, correctly so—to address that by simply doing it anyway and say, 'stop using civilians because it's not going to do you any good.' We're not going to alter our form of attack in order to do that—instead, we're the Americans. We wind up looking for a technological fix to the other side's behavioral violation of the laws of war. We are in an escalating arms race in which we try to come up with better and better technological fixes to address their new and ever more refined ways of violating the law by relying on civilians as shields. Problem is, it's a lot easier to come up with new ways to behaviorally violate the laws of war than it is to come up with a whole new technology to address it. That's more or less why we have drones—because the other side hides amongst civilians."[149]

Autonomous UAVs

As noted earlier, there have been significant advances in the autonomy of UAVs. Although Lt. Gen. David Deptula asserts above that in our lifetimes, we will never reach the point at which weapons are deployed "without a human in the consent loop", there have been calls for preemptive legal initiatives in this regard.

In November, 2012, Human Rights Watch and the International Human Rights Clinic at Harvard Law School released a joint report, "Losing Humanity: The Case against Killer Robots". From the report:

> "With the rapid development and proliferation of robotic weapons, machines are starting to take the place of humans on the battlefield. Some military and robotics experts have predicted that 'killer robots'—fully autonomous weapons that could select and engage targets without human intervention—could be developed within 20 to 30 years. At present, military officials generally say that humans will retain some level of supervision over decisions to use lethal force, but their statements often leave open the possibility that robots could one day have the ability to make such choices on their own power. Human Rights Watch and Harvard Law School's International Human Rights Clinic (IHRC) believe that such revolutionary weapons would not be consistent with international humanitarian law and would increase the risk of death or injury to civilians during armed conflict. A preemptive prohibition on their development and use is needed…"
>
> "…As this report shows, robots with complete autonomy would be incapable of meeting international humanitarian law standards. The rules of distinction, proportionality, and military necessity are especially important tools for protecting civilians from the effects of war, and fully autonomous weapons would not be able to abide by those rules. Roboticists have proposed different mechanisms to promote autonomous weapons' compliance with these rules; options include developing an ability to process quantitative algorithms to analyze combat situations and 'strong artificial intelligence (AI),' which would try to mimic human thought. But even with such compliance mechanisms, fully autonomous weapons would lack the human qualities necessary to meet the rules of international humanitarian law. These rules can be complex and en-

> tail subjective decision making, and their observance often requires human judgment. For example, distinguishing between a fearful civilian and a threatening enemy combatant requires a soldier to understand the intentions behind a human's actions, something a robot could not do. In addition, fully autonomous weapons would likely contravene the Martens Clause, which prohibits weapons that run counter to the 'dictates of public conscience.'"[150]

The report summarizes its recommendations as follows:

> "To All States
>
> • Prohibit the development, production, and use of fully autonomous weapons through an international legally binding instrument.
>
> • Adopt national laws and policies to prohibit the development, production, and use of fully autonomous weapons.
>
> • Commence reviews of technologies and components that could lead to fully autonomous weapons. These reviews should take place at the very beginning of the development process and continue throughout the development and testing phases."[151]

Human Rights First's Gabor Rona adds:

> "I think that more fully autonomous weapons should either be prohibited, or might need new international regulation, particularly with respect to human responsibility for the targeting of civilians and for indiscriminate and disproportionate attacks."[152]

Steven Groves of the Heritage Foundation comments that those who object to fully autonomous UAVs are really arguing that they are by definition indiscriminate weapons that should be prohibited:

> "The ability to select and engage targets without human intervention, by itself, cannot be deemed to violate IHL. Violations of IHL must be made based on the actual attack. If there is an autonomous drone flying around that never attacks a single target, how can that violate IHL?"
>
> "I think the human rights advocates are really making an argument that such a drone would be an indiscriminate weapon to be banned out of existence, the same way they want to ban all landmines, which also 'select and engage targets without human intervention.'"[153]

UAVs and Select Domestic Laws on the Use of Force

2001 Authorization for the Use of Military Force

As noted previously, the 2001 Authorization for the Use of Military Force—on which the Obama administration has relied in part when making its legal case for the use of UAVs to undertake lethal force abroad—states the following:

> "That the President is authorized to use all necessary and appropriate force against those nations, organizations, or persons he determines planned, authorized, committed, or aided the terrorist attacks that occurred on September 11, 2001, or harbored such organizations or persons, in order to prevent any future acts of international terrorism against the United States by such nations, organizations or persons…"[154]

As discussed above, some critics view the AUMF and subsequent government interpretations of it (such as various declarations that the AUMF extends to all "associated forces" of al Qaeda) as violating the international law principles of *jus in bello*.

Additionally, some critics have asserted that the use of UAVs against various terrorist targets has violated the terms of the AUMF itself. For example, the American Civil Liberties Union (ACLU), an active entity in challenging the legality of the Obama administration use of UAVs for lethal force overseas, has argued that the administration is relying on an "overly broad" interpretation of the AUMF to justify UAV strikes in Yemen and Somalia, without fully demonstrating how the targets of those strikes are al Qaeda or associated forces.[155] As the ACLU's Hina Shamsi has put it: "When the war in Afghanistan ends, and if core al-Qaida is decimated, how do we define who we are at war with?"[156]

This view has been echoed by Sen. Patrick Leahy, Chairman of the Senate Judiciary Committee, who during a committee hearing on UAVs in April, 2013, stated:

> "It will also be important for us to examine carefully the constitutional implications of the use of drones to conduct counterterrorism operations overseas. The U.S. government is presumably conducting targeted drone strikes against terrorists overseas pursuant to the 2001 Authorization for the Use of Military Force, as well as the President's executive war powers under Article II, but we must consider the limits of these authorities in the context of the use of drones. When U.S. troops were fully engaged on a so-called 'hot' battlefield during the war in Afghanistan, the boundaries of the legal authorities upon which the administration relied upon for the use of force were much clearer. The scope of authority to conduct targeted drone strikes in Yemen or other locations beyond the traditional battlefield, however, is less clear. I hope that Congress will continue to scrutinize these activities, as well as the legal authorities for such strikes."[157]

However, other analysts have asserted that UAV strikes as they have been conducted are within the parameters of the AUMF. The Heritage Foundation's Steven Groves writes:

> "Congress attached no temporal or geographical limitations to its authorization. Nothing in the AUMF limits U.S. forces from pursuing al-Qaeda outside the borders of Afghanistan or requires U.S. forces to cease hostilities upon achieving a particular military objective."[158]

Prof. Kenneth Anderson comments that the US government is in compliance with the AUMF, and that targeting of al Qaeda members in a range of settings is consistent with the AUMF:

> "The UAV strikes are in compliance with the AUMF; they are directed at parties who, in the US government's reasonable judgment, are targetable parties in the armed conflict and hence are covered by the AUMF."

> "The US government sees itself in an armed conflict under the AUMF; it sees itself as lawfully able to target members of the 'organized armed groups' (which also happens to be criminal terrorist organizations, illegal on other grounds) as well as civilians who, even if not members as such, undertake direct participation in hostilities. Members of the group do not have to be directly, at that very moment, engaged against the United States; this is about the enemy group (or state, if an international war) and not about individuals or individual threats. Even low level members of AQAP, for example, make an important contribution to the effectiveness of the group, and that's so even if they are threatening the government of Yemen directly rather than the US. The US is able to target any of them on the basis of membership or DPH. In actual practice, its high value targeted killing programs are not aimed at those people, but at people—Al Awlaki, for example, or AQAP's only-too-gifted bomb maker—who threaten the US. That's what the White House said in its statement on May 23, 2013—but it's merely policy, not a legal requirement."
>
> "In addition, however, the US has very frequently targeted groups of AQAP fighters who are fighting the Yemen government—we could target them as members of a group at war with the United States, or we could target them as lawful targets in a war in which we are co-belligerent with the government of Yemen (their enemies become our enemies), or both. That kind of targeting, which is rather misleadingly called signature strikes in the press, is just conventional targeting in a conventional war—a civil war between the Yemen government and AQAP's domestic wing, in which we are supporting the Yemen government and in effect acting as its air force. In conventional war, once a force has been determined to be hostile forces (as laid out for example in DOD's Standing Rules of Engagement), any formation or group is targetable as such if reasonably identified to be part of the hostile force, without any need to individually differentiate them."[159]

There are indications that Congress may soon debate, and possibly re-write, the AUMF in order to address questions that have been raised about how the Obama administration has applied it in the context of UAVs, among other reasons. Such a re-writing, were it to occur, could have ramifications for UAV operations abroad. As Senator Bob Corker, Ranking Member of the Senate Foreign Relations Committee, stated in March of 2013:

> "For far too long, Congress has failed to fully exercise its constitutional responsibility to authorize the use of military force, including in the current struggle against al Qaeda, so I urge the committee to consider updating current antiterrorism authorities to adapt to threats that did not exist in 2001 and to better protect our nation while upholding our morals and values. This effort should involve putting in place specific policy guidance for how and when the president can use these authorities, including lethal action and the use of drones, in regular consultation with Congress, so we can restore the appropriate balance of power between the legislative and executive branches of government while maintaining flexibility for the president to respond swiftly under threat of attack."[160]

War Powers Resolution

While a significant debate has arisen over the use of UAVs in the specific context of the 2001 AUMF, a debate has also arisen as to the necessity for congressional authorization at all when the United States is taking military action in the form of UAVs.

In March of 2011, President Obama deployed United States military resources, including armed UAVs, to Libya in response to then-dictator Muammar Gaddafi's use of force against the Libyan population. After the United Nations Security Council passed Resolution 1973, President Obama notified Congress two days later that he had commenced military operations in Libya to assist in the enforcement of the no-fly zone established by the Security Council.[161] Throughout the military engagement, the Obama administration maintained that it was not legally required to seek authorization from Congress.

The Obama administration first explained its position to Congress regarding the need for congressional authorization in a 1 April 2011 memo from the Department of Justice's Office of Legal Counsel (OLC), in which the OLC explained its view that the United States was not at "war" in Libya, and therefore the Constitution's Declaration of War Clause was not triggered:

> "We have acknowledged one possible constitutionally-based limit on this presidential authority to employ military force in defense of important national interests—a planned military engagement that constitutes a 'war' within the meaning of the Declaration of War Clause may require prior congressional authorization. But the historical practice of presidential military action without congressional approval precludes any suggestion that Congress's authority to declare war covers every military engagement, however limited, that the President initiates. In our view, determining whether a particular planned engagement constitutes a 'war' for constitutional purposes instead requires a fact-specific assessment of the 'anticipated nature, scope, and duration' of the planned military operations. *This standard generally will be satisfied only by prolonged and substantial military engagements, typically involving exposure of U.S. military personnel to significant risk over a substantial period*."[162] (emphasis added)

Louis Fischer, Scholar in Residence at the Constitution Project, observes the following regarding the OLC's analysis:

> "Under OLC's analysis, it concluded that the operations in Libya did not meet the administration's definition of 'war.' If U.S. casualties can be kept low—no matter the extent of physical destruction to another nation and loss of life—war to OLC would not exist within the meaning of the Constitution. If another nation sent missiles into New York City or Washington, DC, and did not suffer significant casualties, would we call it war? Obviously we would. When Pearl Harbor was attacked on December 7, 1941, the United States immediately knew it was at war regardless of the extent of military losses by Japan."[163]

The Obama administration has also maintained that the use of force in Libya did not require congressional authorization under the War Powers Resolution. Passed in 1973 against the backdrop of concern by Members of Congress that congressional authority in this area had been eroded during the preceding decades, the Resolution requires the President to consult with Congress "in every possible in-

stance" before introducing armed forces into hostilities.[164] The Resolution goes on to state that in the absence of a declaration of war in circumstances in which such forces are introduced, the President must submit, within 48 hours, a report to Congress explaining those actions, the authority from which they are derived, and the estimated scope and duration of hostilities.[165] Critically, the Resolution also mandates that within sixty calendar days after the President either submits or is required to submit this report, the President must terminate the use of force unless [1] Congress authorizes force; [2] extends the sixty-day period by law; or [3] is physically unable to meet due to an attack on the United States; and goes on to state that the sixty-day period can be extended for up to thirty additional days if the President certifies that such as extension is needed for the safe removal of US forces.[166]

During the course of the conflict in Libya, the Obama administration argued that the requirements of the War Power Resolution did not apply and that therefore congressional authorization was not needed. The Departments of State and Defense, in a 2011 memo from the Obama administration to Speaker of the House John Boehner, noted the limited nature of American strikes on Libya, including through the use of UAVs:

> "The overwhelming majority of strike sorties are now being flown by our European allies while American strikes are limited to the suppression of enemy air defense and occasional strikes by unmanned Predator UAVs against a specific set of targets, all within the UN authorization, in order to minimize collateral damage in urban areas."[167]

The memo went on to explain why the Obama administration believed that the Resolution did not apply in this instance:

> "The President is of the view that the current U.S. military operations in Libya are consistent with the War Powers Resolution and do not under that law require further congressional authorization, because U.S. military operations are distinct from the kind of 'hostilities' contemplated by the Resolution's 60 day termination provision. U.S. forces are playing a constrained and supporting role in a multinational coalition, whose operations are both legitimated by and limited to the terms of a United Nations Security Council Resolution that authorizes the use of force solely to protect civilians and civilian populated areas under attack or threat of attack and to enforce a no-fly zone and an arms embargo. *U.S. operations do not involve sustained fighting or active exchanges of fire with hostile forces, nor do they involve the presence of U.S. ground troops, U.S. casualties or a serious threat thereof, or any significant chance of escalation into a conflict characterized by those factors.*"[168] (emphasis added)

Louis Fisher asserts that the Obama administration's interpretation of "hostilities" under the War Powers Resolution would have illogical results:

> "According to the analysis by the Obama administration, if the United States conducted military operations by bombing at 30,000 feet, launching Tomahawk missiles from ships in the Mediterranean, and using armed drones, there would be no 'hostilities' in Libya (or anywhere else) under the terms of the War Powers Resolution, provided that U.S. casualties were minimal or nonexistent. Under that interpretation, a nation with superior military force could pul-

> verize another country —including the use of nuclear weapons—and there would be neither hostilities nor war."[169]

Prof. Jack Goldsmith, former Assistant Attorney General, Office of Legal Counsel, asserts that "common sense" indicates that the operations that took place in Libya rose to the level of "hostilities" as contemplated by the War Powers Resolution:

> "The Administration argues that once it starts firing missiles from drones it is no longer in 'hostilities' because U.S. troops suffer no danger of return fire and no danger of casualties, and (in contrast to ground troops) drones can easily be removed from the fight if Congress so decides. (Note that this argument implies that the President can wage aggressive war with drones and all manner of offshore missiles without having to bother with the War Powers Resolution's time limits. So the implications here, in a world of increasingly remote weapons, are large.) One difficulty in assessing the argument is that the WPR does not define 'hostilities.' But common sense suggests that firing missiles from drones that kill people over an extended period of time pursuant to a U.N.-authorized use of force constitutes 'hostilities.' So too do standard definitions of the term 'hostilities,' which refer to acts or states of warfare or violence or unfriendliness without reference to the vulnerability of the aggressor or the reciprocity of the fighting (though of course "hostilities" can refer to reciprocated fighting)."[170]

Two weeks after the memo to Speaker Boehner, then-State Department Legal Advisor Harold Koh testified before the Senate Foreign Relations Committee on the Libya engagement, during which he commented to one of the Senators on the committee that the War Powers Resolution was not necessarily intended to apply to the use of UAVs:

> "Now, another point that has been made by some about our legal approach is that we are somehow suggesting that drones get a free pass under the War Powers Resolution. That is not at all what we are saying. But you make the key point which is when the statute talks about the introduction of U.S. Armed Forces into hostilities and what you are sending in is an unmanned aerial vehicle high in the sky, it is not clear that that provision was intended to apply to that particular weapon."[171]

Koh later commented to another Senator on the committee that at the time the War Powers Resolution was passed, Congress had different modes of warfighting in mind:

> "…[I]f we are concerned about unmanned uses of weapons that can deliver huge volumes of violence, a statute which only deals with the introduction of U.S. Armed Forces does not address that situation. I don't blame anybody. At the time the law was passed, they were thinking about Vietnam. They weren't thinking about drones or cyber. So that would be one possibility to change the law to address realities of modern conflict."[172]

William Saletan comments in response to Koh's point:

> "That's a pretty clear statement that the War Powers Resolution doesn't apply to drones. The resolution refers to the 'use of United States Armed Forces.' Koh, representing the administration, says that a statute using this language doesn't address unmanned weapons, even if, in

> Koh's words, they 'deliver huge volumes of violence.' So it doesn't matter how aggressive the mission and the means are. The resolution still doesn't apply, because, as Koh explained to [Senator] Coons, the lawmakers who passed it in 1973 'weren't thinking about drones.'"[173]

Approximately one year after Koh's testimony before the Senate Foreign Relations Committee, in the wake of escalating UAV strikes in Yemen, some scholars revisited the question of whether the War Powers Resolution applies to such strikes. As Fox News relates, Prof. Jonathan Turley of George Washington University School of Law argued at the time that Congress should take an alternative approach to the War Powers Resolution if it wants to have a greater role in the process:

> "Turley, who represented members of Congress who tried to challenge the administration over its campaign in Libya, said re-writing the War Powers Resolution, though, would do little to address the issue—he described the resolution as 'little more than a speed bump for presidents on the way to war.'"
>
> Rather, Turley said Congress should pass a constitutional amendment or law to formally grant itself standing in the courts to challenge Executive Branch decisions on the use of force. He argued that, with drone campaigns, the administration should be seeking a congressional declaration of war to proceed. Having standing in the courts would allow Congress to challenge those drone campaigns it opposes."
>
> "'A drone is just another version of artillery, for the purposes of constitutional law,' he said."[174]

"Drone Court"

A proposal that has gained a significant amount of attention in recent months with respect to the use of UAVs to conduct lethal force abroad has been that of creating a separate judicial entity to review and authorize the use of UAVs in this context. Although often debated in the context of targeting terrorists abroad who are also American citizens, advocates of a "drone court" largely have not ruled out such an entity with respect to the targeting of foreign nationals.

Commentary on the notion of a "drone court" can roughly be organized into three categories: [1] Analysts who support the creation of a "drone court" because they believe such a court would provide necessary legal review and authorization of targeted killings *ex ante*; [2] analysts who oppose the creation of a drone court as an *ex ante* entity because of the belief that it would not provide the necessary oversight of the Executive Branch; and [3] analysts who oppose the creation of any kind of "drone court" because of the belief that judges should have no role in targeting decisions.

Some examples from the first category include Prof. Rosa Brooks and Prof. Amos Guiora. As Brooks testified before the Senate Judiciary Committee in April 2013:

> "Congress should consider creating a judicial mechanism, perhaps similar to the existing Foreign Intelligence Surveillance Court, to authorize and review the legality of targeted killings outside of traditional battlefields. While the Administration may argue that such targeting decisions present non-justiciable political questions because of the President's commander-in-

chief authority, the use of military force outside of traditional battlefields and against geographically dispersed non-state actors straddles the lines between war and law enforcement. While the President must clearly be granted substantial discretion in the context of armed conflicts, the applicability of the law of armed conflict to a particular situation requires that the law be interpreted and applied to a particular factual situation, and this is squarely the type of inquiry the judiciary is bested suited to making…"

"…A judicial mechanism designed to ensure that US targeted killing policy complies with US law and the law of armed conflict might take any of several forms. Most controversially, a court might be tasked with the ex ante determination of whether a particular individual could lawfully be targeted. This approach is likely to be strenuously resisted by the Administration on separation of powers grounds, and it also raises potential issues about whether the Constitution's case and controversy requirement could be satisfied, insofar as proceedings before such a judicial body would, of necessity, be in camera and ex parte. This is also true for the existing FISA court, however, and its procedures have generally been upheld on Fourth Amendment grounds. It would seem odd to permit ex parte proceedings in an effort to ensure judicial approval for surveillance, but reject such proceedings as insufficiently protective of individual rights when an individual has been selected for lethal targeting rather than mere search and seizure."

"I believe it would be possible to design an ex ante judicial mechanism that would pass constitutional and practical muster. It would be complex and controversial, however, and there is an alternative approach that might offer many of the same benefits with far fewer of the difficulties. This alternative approach would be to develop a judicial mechanism that conducts a post hoc review of targeted killings, perhaps through a statute creating a cause of action for damages for those claiming wrongful injury or death as a result of unlawful targeted killing operations. This would add additional incentives for executive branch officials to abide by the law, without placing the judiciary in the troubling role of authorizing or rejecting the use of military force in advance. While proceedings might need to be conducted at least partially in camera, judicial decisions in these cases could be released in redacted form."[175]

Prof. Guiora comments:

"My recommendation is to create a Review Board or Court, and to apply it to drone decisions in real time. Because I am a firm believer—and perhaps that's a reflection of my experience in Israel with the Israeli Supreme Court acting as a very robust and vigorous judicial review in the context of operational decision-making. I think that really needs to be applied in the United States and so I think it's absolutely essential."[176]

With respect to category #2, Kenneth Roth of Human Rights Watch has commented:

"But replicating the FISA courts would provide little by way of effective control because, by their nature, they must be kept secret from the target, so they provide no opportunity for an independent attorney to challenge the government's claims. At least for wiretaps the law is reasonably settled. But the administration, as we have seen, seems to accept in only vague terms

> the law governing drone attacks. In the absence of an adversarial process, a judge cannot be counted on to challenge the administration's permissive interpretation of the law."
>
> "Moreover, a drone court could at most approve placing someone on a kill list, not whether the circumstances of a prospective attack, including the risk to civilians in a changing situation, would be lawful. That would require a determination of the sort that a court can't possibly undertake in advance. In any event, most proposals for drone courts envision them being used only for targeted US citizens—not much help to the great majority of targets from other nationalities. Though of no help to those killed, permitting after-the-fact lawsuits against the government would be a better way to allow the courts to define the limits of the law. But the administration has blocked such suits through various claims of secrecy."[177]

As Gabor Rona of Human Rights First has written:

> "A 'drone court' would be unjust because the proposed target would be unable to appear and make the case for preserving his life. A secret judicial process in which the right to life is at stake but the owner of that life has no say is an affront both to American values and international legal principles."
>
> "While doing much harm, a 'drone court' would do little, if any, good. Supporters like the idea because it appears to provide some check on the President's secretive exercise of this lethal unilateral power. But what judge would risk preventing the interception of a terrorist? What's more likely is that the drone court would be a rubber stamp, creating only the appearance, not the reality, of justice…"
>
> "…So if a drone court isn't the answer, what is?"
>
> "Congress should require the executive to disclose the targeting standards it's adopted so as to expose its rationale to scrutiny. The leaking of a single document — a 'white paper' laying out the administration's legal case for killing U.S. citizens — has triggered unprecedented criticism and pushback from Congress and the media. Scrutiny begets scrutiny and can lead to meaningful reform. That's surely one of the reasons the White House has refused to release most information about the targeted killing program."
>
> "Congress should also ensure that victims of unlawful targeting — or their survivors — have the right to claim compensation, creating a deterrent to government abuse. That right already exists in theory but time and again courts have prohibited such cases from moving forward, buying without question the government's claim that allowing them would threaten national security. Congress should limit the executive's ability to hide unlawful killings behind this claim."[178]

With respect to Category #3, retired judge James Robertson, who previously served on the U.S. District Court for the District of Columbia, observes that the judiciary is not institutionally suited to weigh in on the circumstances that would come before a "drone court":

> "U.S. judges have been hard-wired against rendering 'advisory opinions' since 1793, when the first chief justice, John Jay, declined to answer George Washington's legal questions about the status of a British ship that had been captured by the French and brought to an American port.

> To answer the president's questions, Jay wrote, would violate 'the lines of separation drawn by the Constitution between the three departments of the government.' Jay's letter referred to Article II, Section 2 of the Constitution, which provides that the president 'may require the opinion, in writing, of the principal officer in each of the executive departments, upon any subject relating to the duties of their respective offices'—a provision, Jay wrote, that 'seems to have been purposely as well as expressly united to the executive departments."
>
> "From that letter—itself an advisory opinion—has grown a complex but well-established and understood set of constraints on the federal courts: They are to decide only 'cases' or 'controversies' that are 'justiciable' and 'ripe' for decision. Federal courts rule on specific disputes between adversary parties. They do not make or approve policy; that job is reserved to Congress and the executive."
>
> "Nor do federal courts act ex parte—hearing one side only—or sit in a Star Chamber, like the co-opted judges of the 16th-century England. The targets of a drone strike make no appearance before a judge; they have no notice of the charges against them; no lawyer; no chance to call witnesses or confront the evidence against them; no due process rights. Their case is necessarily considered in absentia and in secret. An American judge cannot do American justice in such a case. If he did, his independence would be severely compromised."[179]

The Heritage Foundation's Steven Groves, similarly asserts:

> "What is this 'drone court' doing other than second-guessing the intelligence and military decisions of the executive branch and the military, and when do they get into this? So a 'drone court' might say, for example, that strike that you're thinking about in Yemen—you can't do that because we are not in a state of war with Yemen, so it violates *jus ad bellum*. And by the way, let's say for the sake of argument that this strike is something the military is planning for a week from now, on a static target, and that perhaps a hundred yards away there's a school or a mosque—so then a 'drone court' might say that the government is not going to be able to satisfy the proportionality provision and as a matter of fact, that guy is just a lieutenant and a recruiter or financier, not an operative, so we question whether the necessity prong of *jus in bello* is satisfied here. Those serving on this court are not around in these countries, they're not in Djibouti, or on the carriers—they're not even in the places from which the drones are run…"
>
> "And on the other side of the spectrum, would it just become a rubber stamp like the FISA court is accused of being? Hopefully on this court, you'd have current or former military and intelligence experts on the laws of war sitting in judgment over particular targets, so they'd probably be of like mind to the people who are coming to the court and laying the case before them. And so the drone court looks at all this intelligence and goes, 'This is a no-brainer—zap the guy.' And then they're just accused of being a rubber stamp."[180]

Prof. Kenneth Anderson asserts that a "drone court" would put judges in the problematic position of assessing intelligence, rather than assessing evidence:

> "I think the idea of a 'drone court' is complete lunacy. I think the Obama administration and the congressional intelligence committees agree. The reason is well-illustrated by the failing legitimacy of the FISA court..."
>
> "There are two ways this could be set up—you can have judicial review in advance of targeting, create a sort of 'death warrant', based on intelligence data. Or you can do it afterwards and have a judicial review of a completed strike. Either way, the judge is in an utterly impossible position. The judge is being asked to review secret evidence about life and death, not just whether (as with the FISA court) you're collecting information. I don't underestimate the importance of the secrecy issues and privacy, but this is life and death. The idea that the judge is in any kind of special position to be able to say anything about it and assess that in relation to the risk posed to the United States, its security, its people and innocents being killed—that's not what judges decide…"
>
> "…The judge is either going to be in the position of having to sign off on matters that either he or she has no basis to really understand or, alternatively, the judge is going to wind up not signing off…and none of this actually has anything to do with evidence or anything like that. It's all about assessing intelligence, which is really different from the assessment of evidence gathered in the US court with discovery and prosecutors, etc."
>
> "…The courts will shut this idea down in a heartbeat. I think the courts will wind up saying that targeting is an inherently executive function, and that it belongs to the political branches and the political branches alone. At the end of the day, I can't see even the most kind of liberal-leaning court believing either that it's constitutional or that it would be a good idea for them to get involved at the front end."[181]

Anderson continues that the establishment of a third-party mechanism to review UAV strikes after-the-fact would be equally unworkable:

> "If judges or other 'neutral' or 'impartial' adjudicators are inserted into the process at the back end review, after the strike and say, 'we're going to award damages for things that look like they were mistakes', then that raises issues as well. Insofar as this is an armed conflict, collateral damage is not *accidenta*l death, it's actually a category of *anticipated* likely civilian harm that is accepted as lawful. Now we pay money on collateral damage claims in places like Afghanistan, as a matter of good relations with the local population but not as a requirement of law; Eventually this might turn into a requirement of law where civilian property is harmed or civilians are killed. But judges or other adjudicators in the case of drone attacks are being asked to determine not how much to pay out for a claim on lawful collateral damage, but instead to make, even if only implicitly, the determination that it was lawful collateral damage, or that the person targeted was a lawful target, or was not a lawful target because the intelligence was faulty, or that the determination was mistaken but a reasonable mistake, or an unreasonable mistake. This makes judges something like superheroes whose special super power would be the power of hindsight."
>
> "If taken seriously, few if any strikes would be undertaken by career military and intelligence professionals worried about being second-guessed with serious legal consequences."

> "Finally, how do you pay a damage award without revealing vast amounts of information about what was going on here? And then when it turns out in secret that the judges had signed off on all of these things and approved them, then it will blow up in their faces like the FISA court did. The fact is that the groups that are out to get this are not actually targeting transparency and accountability and independent review, that's not what the aim is. They'll never be satisfied until the judges shut down targeted killing as such. Well, the judges are not going to shut it down…I hope that the administration and congress do their duty and stand up and say 'we are not going to go there because we believe that we ought not to put the judiciary in this position..' Otherwise they are just punting their own constitutional responsibilities to the judiciary. That's just political cowardice."[182]

Additional Commentary on UAVs and Legal Trends

Scholars interviewed by this author offered additional comments on trends in law and UAVs generally, with respect to the use of force.

Gabor Rona of Human Rights First comments that while international law itself is unlikely to change for the foreseeable future, it is his hope that the United States will return to viewing terrorism as a law enforcement issue:

> "It is important for those of us who are in the United States and are surrounded by the US conversation on these issues to bear in mind that while the US is certainly an important player, perhaps the single most important player, the US does not control the fate of international law. There has been very little support internationally for a lot of the limits that the US has claimed, particularly in the Bush administration, but continuing in the Obama administration as well…"
>
> "Former CIA Director Hayden once I think correctly said that as concerns drone policy, nobody agrees with us except maybe Israel. So while there is this conversation taking place within the United States, which is seen in a vacuum, you could be forgiven for thinking that this is the conversation that is driving what will be the future of *jus ad bellum* and *jus in bello.* I think a more realistic view is that that conversation, while vibrant within the United States, is not particularly recognized or relevant from the perspective of most other countries that have developed positions on these issues…"
>
> "We are not really looking at the probability of changes in international law. There isn't going to be a new Geneva Convention or an additional protocol to the Geneva Conventions that address these issues in my lifetime. I hope what will more likely happen is that the US will come to its senses and recognize that it has severely overreacted since 9/11 to the international threat of terrorism, and will eventually come back to viewing it more as what the rest of the world views terrorism as, which is a criminal justice problem—it cannot simply be obliterated by declaring war or waging war on every perceived terrorist or terrorist organization. And I think as the US does come back from that brink of overreaction, the questions about whether not we need new law will tend to fade."[183]

Steve Groves of the Heritage Foundation comments the United States will continue to be criticized for its position on the use of force against transnational terrorist organizations outside "hot" battlefields, but that the nature of the threat over time will require the United States to continue to rely on the use of UAVs to address the threat, wherever it may be:

> "I would say global legal trends will continue to be defined by hostility towards a robust view of what our US rights are under international law, including the fairly robust positions that have been taken by the Obama administration. And I think those positions will and should remain robust."
>
> "The only way I see things changing significantly is if the United States just drops the ball and says, 'OK, everyone's against our reading of international law, on whether you can use armed force on a battlefield that isn't 'hot'; on whether we can use the doctrine of the host country being 'unwilling or unable' to stamp out the threat; on whether the threat of a transnational terrorist organization is imminent enough to justify lethal force.' It's really in the hands of the United States, though, because everyone else is fairly uniformly against the United States in this regard—I just hope we don't blink over the next couple of years, because it's not as if conditions on the ground are going to change…"
>
> "The transnational terrorist threat is going to continue probably for our lifetimes, and it's going to be dispersed across the Middle East, North Africa, the Horn of Africa, and elsewhere. At the same time, drone technology will continue to advance. The desirability of military intervention, meaning boots on the ground, will continue to decline in popularity, so the need for low-footprint, high-accuracy strikes is going to continue. So there will remain a need to continue with the capability of drones and targeted killings—it's really up to those who are in charge of global security to maintain their end of the bargain and stick to defending the legal norms as we have been for several years."[184]

Groves also elaborates on the effect that American withdrawal from Iraq and Afghanistan could have on the legal debate over UAVs and force moving forward:

> "One thing that could change is as the United States withdraws militarily from 'hot' battlefields, the claim that there's an ongoing armed conflict against this transnational terrorist organization becomes more and more difficult to make. If we've withdrawn completely from Iraq and Afghanistan, are we really able to convince the international community that we're engaged in an armed conflict? It becomes very difficult to say that without being accused of engaging in a global war on terror. We can strike whomever we went, whenever we want, just as long as we label them as an imminent threat. But the anti-drone crowd doesn't agree with our definition of 'imminent threat' anyway—so in that sense, their legal arguments will continue to progress, as we withdraw from the hot battlefields of the world while still claiming the right and the justification to strike al-Qaeda and its associated forces wherever they may be."[185]

Prof. Kenneth Anderson asserts that the UAV program, in addition to targeted killing for counter-terrorism purposes, has also effectively been used as a conventional war tactic to support allied govern-

ments as they attempt to prevent large scale territorial takeovers by jihadist organizations—a reality for which there are legal implications:

> "…It's true that drones are now seen by the national security establishment (though this not well communicated to the public or the policy community) as the on-offense arm of counter-terrorism strategy. But its other arm is territorial denial to terrorist groups."
>
> "We've come to understand over the course of the first Obama administration that we cannot afford to allow terrorists to have safe havens territorially, so we need something beyond drones in order to be able to address that. The drones are utterly crucial for essentially striking behind the lines, so to speak…but what happens? The terrorists set up camp in some remote part of Yemen, we strike, and they don't set up camps any more—they set up in villages, often villages where they have connections to tribes and families in the case of Yemen, though not so in the case of genuinely transnational 'foreign fighters.' That it makes it harder to strike without harming non-combatants and that's why we need drones."
>
> "Here's the problem: Increasingly, in the wake of the Arab Spring, and going all the way back to the 90s, the strategy of the Islamist jihadist groups was twofold: have a transnational global terrorist strike wing aimed at the United States and more generally targets abroad in the West, but now South Asia and Africa, on the one hand. But, on the other, seize political control through an Islamist insurgency of a whole political territory and its population and govern there. If not a whole country, then several provinces. That's how Afghanistan turned into a haven for al-Qaeda; it wasn't just that al-Qaeda had some camps in various places—it's that they were integrated into the political governance of an entire quasi-state. This is the fundamental template that the jihadists threaten in place after place, especially in the wake of the Arab Spring. So in Yemen, insurgent Islamist groups who also are al-Qaeda in the Arabian Peninsula, internal and external wings, managed to seize an area the size of Texas with a million people in it. They governed it for over a year in that incredibly but predictably brutal Islamist way—not a place where you want to be a girl attending school—until the government of Yemen was able to push them out. But Yemen did so only with significant air support from the United States using drones, and I'm sure a ton of CIA support on the ground."
>
> "The role of the US in this and other places is territorial denial of political governance of territory to the terrorists, who have got a whole domestic insurgent wing in each one of these cases, looking to take control of the place as a political territory. Once they do that, it's much harder to go around and root them up—it's not just like blowing up some camp somewhere or even going after them in some isolated village. They're running the place."
>
> "And so we're determined not to let that happen, and that accounts for our expansion into Africa. Everybody writes endless stories about the expansion of drone bases across Africa, but the reason for the expansion across Africa is mostly in order to provide surveillance and intelligence to governments that are fighting insurgencies inside their countries, from these Islamist groups. The legal implications of these developments are not getting picked up."[186]

Anderson adds that the Obama administration, though effectively engaging in two separate campaigns—one counter-terrorism, the other a more conventional warfighting—is reluctant to acknowledge the latter out of concern over the possible response from Congress:

> "The US for the last several years has not only been engaged in high value targeted strikes against people like al-Alawki in Yemen, we've been using drones to blow up all sorts of groups of fighters in trucks, and all sorts of low level guys, and the critics say, 'You're just blowing up foot soldiers, what's the point?'"
>
> "There is a very important answer to that, but so far the Obama administration has not been willing to own up to it. These so-called 'signature strikes' against groups we don't know who they are, are being conducted not in the US's counter-terrorism targeted high-value targeted killing program, but are being conducted as part of the US's essentially conventional war support of a government engaged in a counter-insurgency campaign where it does the fighting on the ground, and we provide its air force, but it's just conventional bombing by any other name."
>
> "But we don't want to stand up because the Obama administration, I'm sure, doesn't want to have to account for any of this stuff in Congress, concerning the War Powers Resolution and things of that nature. So it allows this to be presented as 'we're blowing up groups of people in targeted killing, when in fact we've got no idea who we're killing.' That's not actually what's going on—we have two very distinct programs of when we go after people who are kind of part of a conventional war being conducted by a government in which we are co-belligerents, but we haven't wanted to admit that."[187]

Policy

Quite apart from the ongoing debate over the legality of United States deployment of UAVs to undertake force abroad, experts are also debating the *advisability* of UAVs as a counter-terrorism tool and more generally as an increasingly prominent feature of America's defense/intelligence arsenal.

As noted previously, UAV strikes on foreign targets abroad have eliminated leadership and other key figures of al Qaeda and its associated forces. Professor Daniel Byman of Georgetown University elaborates on the ways in which UAV strikes degrade the capabilities of groups such as al Qaeda:

> "…In 2010, Osama bin Laden warned his chief aide, Atiyah Abd al-Rahman, who was later killed by a drone strike in the Waziristan region of Pakistan in 2011, that when experienced leaders are eliminated, the result is 'the rise of lower leaders who are not as experienced as the former leaders' and who are prone to errors and miscalculations. And drones also hurt terrorist organizations when they eliminate operatives who are lower down on the food chain but who boast special skills: passport forgers, bomb makers, recruiters, and fundraisers."
>
> "Drones have also undercut terrorists' ability to communicate and to train new recruits. In order to avoid attracting drones, al Qaeda and Taliban operatives try to avoid using electronic devices or gathering in large numbers. A tip sheet found among jihadists in Mali advised militants to 'maintain complete silence of all wireless contacts' and 'avoid gathering in open areas.'

> Leaders, however, cannot give orders when they are incommunicado, and training on a large scale is nearly impossible when a drone strike could wipe out an entire group of new recruits. Drones have turned al Qaeda's command and training structures into a liability, forcing the group to choose between having no leaders and risking dead leaders."[188]

Patrick Johnston of the RAND Corporation and Anoop K. Sarbahi of UCLA released a study in July 2013 that supports the assertion that UAV strikes are effective in degrading terrorist organizations such as al Qaeda, though they express a cautionary view that UAV strikes are more effective as a form of tactical disruptiveness rather than as a long-term strategic "game-changer" vis-à-vis al Qaeda:

> "Still, our findings appear consistent with the hypothesis that new technologies—specifically, remote means of surveillance, reconnaissance and targeting—are able, at least in certain key areas of northwest Pakistan and eastern Afghanistan, to disrupt and degrade militants in ways that compensate for an incumbent government's lack of physical presence in and control over these areas, and can consequently limit both the frequency and the lethality of militant attacks. This suggests that new technologies that provide information previously available only to actors with a strong physical presence in a geographic area can alter conventionally accepted 'logics of violence' in civil war."
>
> "The implication of these findings, of course, is that as technology continues to become increasingly sophisticated, warfare is likely to become increasingly 'virtual' but not bloodless. Adversaries—not only governments, but also non-state actors such as insurgents, terrorists and criminal organizations—will adapt their organization and behavior to reduce their vulnerability to adversaries' countermeasures, and some are likely to try leveraging these technologies for their own use against their state and non-state enemies. In the near term, for example, insurgents may increasingly abandon rural areas like FATA in favor of urban areas of the sort that insurgents have traditionally eschewed, but that may now offer greater protection from drones and other sophisticated countermeasures. However, the operational constraints on urban operations might restrain militants' use of violence, just as they have for state actors."
>
> "In short, the surveillance, reconnaissance, and targeting capabilities of drones and other technologies could upend conventional understandings of the requirement of territorial control in order to influence insurgent organizations' behavior. These technologies may hold potential to enable the counterinsurgent forces to regain the initiative in asymmetric wars without having to deploy large numbers of troops to implement some guise of a classic 'clear-hold-build' strategy. Finally, it is important to reiterate that any reduction in terrorist activity associated with the drone campaign appears to be modest in scope. Although a decline in violence in FATA in 2010 coincided with the peak of the drone campaign, FATA militants remain active and violence remains high. To the extent drone strikes 'work,' their effectiveness is more likely to lie in disrupting militant operations at the tactical level than as a 'silver bullet' that will reverse the course of the war and singlehandedly defeat al-Qa'ida."[189]

A particular type of UAV strike that has attracted some debate with respect to its legality is the "signature strike", which as noted above, is generally defined as a strike that targets a group of men following behavioral profiles associated with terrorist organizations, but whose identities are not necessarily

known.[190] At the policy level, some experts argue that such strikes serve a critical function in combating terrorist organizations, by taking down organizational support structure in areas of the world that are otherwise inaccessible, and creating an environment in which organizations are unable to plan securely:

> "Osama bin Laden might have been the public face of al Qaeda, but he was supported by a web of document-forgers, bombmakers, couriers, trainers, ideologues, and others. They made up the bulk of al Qaeda and propelled the apparatus that planned the murder of innocents. Bin Laden was the revolutionary leader, but it was the troops who executed his vision."
>
> "Signature strikes have pulled out these lower-level threads of al Qaeda's apparatus—and that of its global affiliates—rapidly enough that the deaths of top leaders are now more than matched by the destruction of the complex support structure below them. Western conceptions of how organizations work, with hierarchal structures driven by top-level managers, do not apply to al Qaeda and its affiliates. These groups are instead conglomerations of militants, operating independently, with rough lines of communication and fuzzy networks that cross continents and groups. They are hard to map cleanly, in other words. Signature strikes take out whole swaths of these network sub-tiers rapidly—so rapidly that the groups cannot replicate lost players and their hard-won experience. The tempo of the strikes, in other words, adds sand to the gears of terror organizations, destroying their operational capability faster than the groups can recover."
>
> "There are other rationales for these attacks, though. Part of the reason signature strikes have become so prominent in this global counterterror war is, simply put, geography. Local terrorist groups only become international threats if they have leadership that can execute a broad, globalist vision, and if that leadership has the time and space to plot without daily distractions from armies and security services—as in safe havens like Yemen, Somalia, the Sahel, and the tribal areas of Pakistan. These are exactly the places where the United States cannot apply conventional force and where local governments lack the capability or will to counter the threat. Exactly the places where drones offer an option to eviscerate a growing terror threat that has a dispersed, diffuse hierarchy. The places where signature strikes have proven effective."
>
> "With more capable security partners, the brutal destruction from drones above might come from more conventional operations on the ground. But, by definition, safe havens aren't penetrable by capable security services."
>
> "There is an intangible factor that reinforces the effectiveness of signature strikes: the fear factor, coupled with the suspicions and paranoia that result from organizations searching desperately among their ranks to find out who is providing the Americans information so detailed that we can wreak such havoc over such a long period of time. Time and again, intelligence has clearly told us that the adversary dreads these operations—lethal strikes that come anytime, anywhere, and that eliminate entire swaths of organizations. And these same organizations then turn around and further degrade their operational capability by engaging in savage hunts for leaks."[191]

The overall policy effectiveness of UAV strikes is in dispute, however, with some analysts arguing that such strikes do incur costs in other areas, and in some respects may even be counterproductive.

Common Policy Objections

Broadly speaking, three of the most common criticisms of UAVs in the lethal force context are:

- To the extent that UAV strikes result in civilian casualties, such strikes create anti-American resentment on the ground that ultimately adds recruits to the ranks of or otherwise empowers terrorist organizations, as well as a resentment globally that results in reduced support for American counter-terrorism efforts;
- The use of UAVs for lethal force creates a dynamic that results in the "de-humanization" of warfare, both in terms of the UAV operator being too far removed from the lethal act, and in terms of the United States government willingness to resort to force via UAVs without the national deliberations on force that might otherwise ensue if troops were to be put in harm's way; and
- As other nations acquire UAV capabilities of their own, the manner in which the United States has deployed UAVs for lethal force is setting a precedent for other nations to follow in ways that run counter to American interests.

"Blowback"

The "blowback" argument takes a variety of forms, but is centered on the notion that UAV strikes actually fuel the terrorism that they are meant to prevent.

Some allege, for example, that UAV strikes in Pakistan are adding recruits to the ranks of al Qaeda or the Taliban. Among these critics are United Nations Special Rapporteur on counter-terrorism and human rights, Ben Emmerson:

> "The U.N. Special Rapporteur on drones, British lawyer Ben Emmerson, recently visited Pakistan and told me: 'The consequence of drone strikes has been to radicalize an entirely new generation…'"
>
> "U.S. President Barack Obama has maintained the strikes are necessary for defeating al Qaeda and the Taliban, but others including Emmerson have their doubts."
>
> "He said: 'Through the use of drones you may win the immediate battle you are waging against this particular faction or that particular faction ... but you are losing the war in the longer term.'"[192]

Prof. Audrey Kurth Cronin asserts that al Qaeda itself is able to take advantage of UAV strikes by turning them into propaganda and recruitment victories:

> "Not only has al Qaeda's propaganda continued uninterrupted by the drone strikes; it has been significantly enhanced by them. As Sahab (The Clouds), the propaganda branch of al Qaeda, has been able to attract recruits and resources by broadcasting footage of drone strikes, portraying them as indiscriminate violence against Muslims. Al Qaeda uses the strikes that result in civilian deaths, and even those that don't, to frame Americans as immoral bullies who care less about ordinary people than al Qaeda does. And As Sahab regularly casts the leaders who are

> killed by drones as martyrs. It is easy enough to kill an individual terrorist with a drone strike, but the organization's Internet presence lives on…"
>
> "...The best way for the United States to prevent future acts of international terrorism on its soil is to make sure that local insurgencies remain local, to shore up its allies' capacities, and to use short-term interventions such as drones rarely, selectively, transparently, and only against those who can realistically target the United States."
>
> "The problem is that the United States can conceivably justify an attack on any individual or group with some plausible link to al Qaeda. Washington would like to disrupt any potentially powerful militant network, but it risks turning relatively harmless local jihadist groups into stronger organizations with eager new recruits…."[193]

Cronin also asserts:

> "…[O]ther threats to the U.S. homeland have actually been sparked by outrage over the drone campaign. Faisal Shahzad, a naturalized U.S. citizen, tried to bomb Ties Square in May 2010 by loading a car with explosives. A married financial analyst, Shahzad was an unlikely terrorist. When he pleaded guilty, however, he cited his anger about U.S. policies toward Muslim countries, especially drone strikes in his native Pakistan."[194]

Similar assertions have been made with respect to Yemen. In April of 2013, the Senate Judiciary Committee convened a hearing on the UAV program at which, for the first time, a witness from a village where it is believed that a UAV strike killed civilians testified before the Senate. Journalist Farea Al-Muslimi, whose testimony received considerable media coverage, commented to the Committee:

> "The killing of innocent civilians by U.S. missiles in Yemen is helping to destabilize my country and create an environment from which AQAP benefits. Every time an innocent civilian is killed or maimed by a U.S. drone strike or another targeted killing, it is felt by Yemenis across the country. These strikes often cause animosity towards the United States and create a backlash that undermines the national security goals of the United States. The U.S. strikes also increase my people's hatred against the central government, which is seen as propped up by the Persian Gulf governments and the United States."[195]

Hassan Abbas, a senior advisor at Asia Society and professor at National Defense University, asserts that on-the-ground resentment towards UAV strikes creates a counterproductive dynamic between the terrorist organizations and the civilian public:

> "Response to drone strikes comes in many varieties. First, revenge is targeted at those within the easy range of the insurgents and militants. The victims of those revenge terrorist attacks also consider the drone strikes responsible for all the mayhem. Consequently, terrorists and ordinary people are drawn closer to each other out of sympathy, whereas a critical function of any successful counter-terrorism policy is to win over public confidence so that they join in the campaign against the perpetrators of terror. Poor public awareness—which is often a function of inadequate education—about terrorist organizations indeed plays a role in building this per-

> spective. Public outrage against drone strikes circuitously empowers terrorists. It allows them space to survive, move around, and maneuver…"[196]

Some analysts also assert that UAV strikes also negatively affect public opinion in countries other than those where UAV strikes are carried out, which in turns has ramifications for counter-terrorism support. As Prof. Kurth-Cronin writes:

> "Pakistanis aren't the only disapproving ones: the vast majority of people polled internationally in 2012 indicated strong opposition to the U.S. drone campaign. The opposition was strongest in Muslim-majority countries, including traditional U.S. allies, such as Turkey (81 percent against), Jordan (85 percent against), and Egypt (89 percent against)."
>
> "Europeans are almost as unhappy: of those polled in a 2012 in a 2012 Pew survey, 51 percent of Poles, 59 percent of Germans, 63 percent of French, 76 percent of Spanish, and a full 90 percent of Greeks noted their disapproval of U.S. drone strikes. The only publics that even approach the positive attitudes of the United States—where 70 percent of respondents to a recent *New York Times* poll approved of drones and 20 percent disapproved—are in Indian and the United Kingdom, where public opinion is more or less evenly divided. Washington insiders commonly contend that these popular attitudes don't matter, since government officials in all these countries privately envy American capabilities. But no counterterrorism strategy can succeed over time without public support."
>
> "That is because a crucial element in the success of U.S. counterterrorism has been close collaboration with allies on issues of terrorist financing, the extradition of terrorist suspects, and most important, the sharing of vital intelligence…but [the Obama] administration's unilateralism and lack of transparency on targeted killings are undermining the connections that were painstakingly built over the past decade, particularly with Pakistan and Yemen. This decreases the likelihood that allies will cooperate with Washington and increases the chances of terrorist attacks against Americans."[197]

Micah Zenko of the Council on Foreign Relations asserts that while resentment "on the ground" in the countries where UAV strikes occur is difficult to confirm, the larger issue is the sort of international disapproval to which Prof. Kurth Cronin cites, above:

> "The blowback thesis is vastly muddled and overstated, in part because it's impossible to measure or quantify…The issue is: Are there individuals who are neutral third parties who might be motivated to take actions against US national interests because of the presence of US drones and the act of drone strikes? I think there are certainly some anecdotal cases where that's true, but I think what happens more often in these areas where strikes occur is that people become conditioned to sort of see and project drone uses where there aren't any. Many of the operations, particularly in Yemen, but also potentially in Pakistan, that are ascribed to the United States may not be conducted by the United States. However, the way that the United States has decided to sort of maintain the myth of covert status for these operations, whereby one cannot describe or acknowledge or defend them in any way, allows for some of the backlash against them."

> "Now, the larger issue is not civilian casualties causing backlash among affected populations…it's not the issue of where the strikes occur, it's the fact that drone strikes are hated globally. In places like Turkey, it's ninety percent opposition, in Japan, it's eighty-five percent opposition. You start to get the prospect of issue linkage, where people tie the dislike for targeted killings to other areas of cooperation that the US might want to have, specifically on national security and intelligence. That's the bigger concern, at least for people within government. They're much more worried about that than they are about the prospect of people living in the tribal areas of Pakistan and joining with military or transnational terrorist groups."[198]

The "blowback" thesis is itself, however, subject to vulnerabilities. Prof. Kenneth Anderson writes, for example, that the severity of blowback is debatable at best, and that use of blowback avoidance as a guiding principle lends itself to undesirable, unworkable policy outcomes of its own:

> "…That leaves the broader claim of *global* blowback—the idea that drone campaigns are effectively creating transnational terrorists as well as sympathy for their actions. That could always be true and could conceivably outweigh all other concerns. But the evidence is so diffuse as to be pointless. Do Gallup polls of the general Pakistani population indicate overwhelming resentment about drone strikes—or do they really suggest that more than half the country is unaware of a drone campaign at all? Recent polls found the latter to be the case. Any causal connections that lead from supposed resentments to actual terrorist recruitment are contingent and uncertain…The blowback argument is also peculiarly susceptible to raising the behavioral bar the United States must meet in order to keep the local population happy enough not to embrace suicide bombing and terrorism. It defines terrorist deviancy down, While U.S. and Western security behaviors are always defined up.
>
> "From a strategic standpoint, however, the trouble with the blowback theory is simple: It will always counsel doing nothing rather than doing something…"
>
> "Blowback is a form of the precautionary principle. But it's awfully difficult to conduct war, after all, on the basis of 'first do no harm.' As it happens, the United States once had a commander driven largely by considerations of blowback from a restive local population. His name was George McClellan. If he had not been replaced by Abraham Lincoln, the Union would have lost the Civil War." [199]

Prof. Daniel Byman of Georgetown University echoes Anderson's view that the data on blowback is inconclusive, for several reasons:

> "It is very hard to say you can look at a poll and say, 'people hate this.' A lot of the polling is actually misinterpreted—which is not to say that people like these strikes, but rather to say that a lot of people polled say 'don't know…' If the answer is 'don't know' from a policy point of view, that's actually good news, because those people are presumably not enraged if they don't know what's going on. But from a polling point of view, you often take those people out…"
>
> "I'm very nervous about the data on this. When people say 'I hate the drone strikes'…well, I hate lots of things. But there are only a few things that really animate me politically, and I think that's true for most people. When you get into a country like Pakistan or Yemen, a lot of

> the reason we care about popular opinion there is because the legitimacy of those governments can be undermined if popular opinion turns against them—we wants these governments to be stronger, not weaker. But the governments of Pakistan and Yemen have about a million legitimacy problems, ranging from economic performance to human rights abuses to how these governments came to power, etc. I think drones might be on this list, but I don't think they are particularly high on this list."
>
> "…A big question is: When we capture these guys, how many of them talk about drone strikes as a reason they joined up? If the answer is 'tons', then we have a problem. Then what I'm saying is actually either understated or wrong. That's the kind of evidence I'd want to see, rather than assertions that 'people in the village don't like it.'" [200]

Byman also argues that even assuming UAV strikes incentivize some individuals to join terrorist organizations, that does not necessarily outweigh the benefit of the strike in terms of *skilled* terrorist eliminated:

> "The presumption is that all militants are roughly equal. So if you killed two and create five new, you're down three. But if you kill two skilled, high-level people who are able to recruit and operate well, and replace them with five locals who haven't left their village, who really are not capable of getting on an airplane, traveling to a foreign country, living there, procuring explosives, and on and on, that's a very different trade-off…so if you can remove the relatively finite number of skilled people, you both reduce their skilled operatives and you reduce their ability to produce new skilled operators."[201]

Lt. Gen. David Deptula, USAF (Ret.), argues that the focus on civilian casualties from UAVs is a byproduct of al Qaeda propaganda strategy, and that seeks to impose limitations on US use of UAVs in ways that al Qaeda cannot do so on the actual battlefield:

> "A significant advantage of RPA is that they allow us to project power without projecting vulnerability-something that can't be done when ground forces are put in harm's way. This capability provides us with an asymmetric advantage that our adversaries find difficult to counter. Because RPA are so effective, our enemies try to manipulate us to do what they cannot — limit the use of one of our asymmetric advantages—by spreading falsehoods that 'drones' cause reckless collateral damage or are somehow not accurate."
>
> "The fact of the matter is that 'drones' are one of, if not the most, accurate means of employing significant force in our military arsenal. Airpower, in the form of RPA, is the one allied capability that the Taliban in Afghanistan, Al Qaeda in Pakistan, Yemen, and around the globe cannot defeat directly. By creating international focus on civilian casualties, and attributing those casualties to 'drones' vice the biggest cause of those casualties-themselves, they create political and societal pressure to limit the use of 'drones.'"
>
> "Adversary falsehoods regarding inaccuracy and collateral damage divert attention from the fact that the massive intentional damage, intentional killing of civilians, and intentional violations of international law are being conducted by Al Qaeda and the Taliban—not U.S. 'drones'…"[202]

"De-humanizing" War

The second common objection to UAV strikes—that they are taking important "human" factors out of warfighting in ways that could have ramifications for the future—is in fact comprised of two separate but related arguments.

First, some critics allege that the lethal use of UAVs lends itself to a "videogame mentality" from the perspective of the UAV operator, whereby the likelihood of civilian casualties actually increases as the result of a level of psychological "removal" of the operator from the battlefield. As Prof. Mary Ellen O'Connell has framed it:

> "A 20-something Christian Air Force pilot living with her two children in suburban Las Vegas who views a monitor to locate her targets would seem to be as distant as a one can be from targets in rural, Muslim Pakistan. Television and YouTube video of drone pilots on the job reveal a set-up that looks very much like video game. These factors and others likely contribute to the high death rate among unintended targets."[203]

Philip Alston, the United Nations special rapporteur on extrajudicial, summary or arbitrary executions, and Hina Shamsi of the ACLU echo these assertions:

> "Equally discomfiting is the 'PlayStation mentality' that surrounds drone killings. Young military personnel raised on a diet of video games now kill real people remotely using joysticks. Far removed from the human consequences of their actions, how will this generation of fighters value the right to life? How will commanders and policymakers keep themselves immune from the deceptively antiseptic nature of drone killings? Will killing be a more attractive option than capture? Will the standards for intelligence-gathering to justify a killing slip? Will the number of acceptable 'collateral' civilian deaths increase?"[204]

Other analysts dispute these assertions, arguing that not only are UAV operators not as psychologically removed from the battlefield as often portrayed, but also that there are plenty of other weapons platforms that remove the operator from the actual territory on which the targets are struck, making the UAV no different from other platforms in this regard. As Prof. Daniel Byman puts it:

> "I know some drone operators, and I would argue the opposite—drone operators actually see the person they are killing. To me, that is much harder than the generic situation of 'there's some enemy over there, we're firing in that direction, vague enemy falls down.'"[205]

Author and journalist Mark Bowden, in a wide-ranging piece on UAVs for *The Atlantic*, describes the toll that UAV strikes can take on operators:

> "The dazzling clarity of the drone's optics does have a downside. As a B-1 pilot, Dan wouldn't learn details about the effects of his weapons until a post-mission briefing. But flying a drone, he sees the carnage close-up, in real time—the blood and severed body parts, the arrival of emergency responders, the anguish of friends and family. Often he's been watching the people he kills for a long time before pulling the trigger. Drone pilots become familiar with their victims. They see them in the ordinary rhythms of their lives—with their wives and friends, with

> their children. War by remote control turns out to be intimate and disturbing. Pilots are sometimes shaken."[206]

Steve Bucci of the Heritage Foundation notes that any military personnel tasked with the responsibility to use lethal force when necessary, no matter the weapon, face the same basic construct of human nature that makes killing difficult:

> "I suppose the guys who sit in the silos in North Dakota have a very different view of the job they're going to do when they push a button than an infantryman who has to walk through the blood of the person he just killed—that's the nature of armed conflict. That doesn't make it different or easier, though…we spend a lot of money and a lot of time trying to teach our military how to kill people effectively. It is not in human nature to do that normally—it takes training to get someone to shoot at another human being."
>
> "Now, there's a lot of debate about whether all of that has been short-circuited by all the kids playing video games, and how used they are to doing that. But it takes a lot of training in the military to teach people how to do that regularly and effectively, and what is taking place is overcoming the natural tendency of human beings not to kill one another. I know in our violent society, some people think that's a crazy thing, but it's a fact—it's been researched, it takes a lot."[207]

Prof. Kenneth Anderson notes that UAV operators are no further removed psychologically from the battlefield than manned aircraft pilots or submarine operators:

> "The most offensively foolish (though endlessly repeated) objection raised against drones was the one made by Jane Mayer in her influential 2009 *New Yorker* article, 'The Predator War': that drone pilots are so distant from their targets that they encourage a 'push-button,' video-game mentality toward killing. The professional military find the claim bizarre, and it fails to take into account the other kinds of weapons and platforms in use. Note, the pilot of a manned craft is often thousands of feet away and a mile above a target looking at a tiny coordinates screen. And what of the sailor, deep in the below-decks of a ship. Or a submarine, firing a cruise missile with no awareness of any kind about the target hundreds of miles away?"[208]

Heritage's Steven Bucci adds:

> "Having drones to do this stuff in my mind is no different than any of the multiple weapons systems we now use where we don't have to come face to face before we kill one another…if critics are saying we need to go back to the way we used to fight wars, which is two armies facing each other on the battlefield running together and hacking each other to death with axes—that wasn't really a great time then either."[209]

A second area of concern raised by some critics that UAV strikes remove "human" factors from warfighting resides at the institutional level: that the ability to send UAVs to undertake lethal force will make governments like that of the United States more inclined to resort to force without what would otherwise be a publicly deliberative process on whether force should be used. As Peter Singer of the Brookings Institution writes:

> "We don't have a draft anymore; less than 0.5 percent of Americans over 18 serve in the active-duty military. We do not declare war anymore; the last time Congress actually did so was in 1942—against Bulgaria, Hungary and Romania. We don't buy war bonds or pay war taxes anymore. During World War II, 85 million Americans purchased war bonds that brought the government $185 billion; in the last decade, we bought none and instead gave the richest 5 percent of Americans a tax break."
>
> "And now we possess a technology that removes the last political barriers to war. The strongest appeal of unmanned systems is that we don't have to send someone's son or daughter into harm's way. But when politicians can avoid the political consequences of the condolence letter—and the impact that military casualties have on voters and on the news media—they no longer treat the previously weighty matters of war and peace the same way."[210]

Micah Zenko of the Council on Foreign Relations similarly notes:

> "The enduring impact of drones is they lower the threshold for which civilian policy makers will decide to authorize force. The persistence, the responsiveness, and the ability to not put service members at risk significantly lowers the threshold for using military force. There's no question that the United States would never have launched three hundred and seventy-five manned air attacks in Pakistan or three hundred and seventy-five AC-130 gunship raids or three hundred and seventy-five cruise missile or three hundred and seventy-five special operations raids, but drones are a different platform and they change the impact. It's a combination of the increased impunity and the reduced risk to combatants…in interviews I've done with senior civilian policy makers, they've all recognized this."[211]

Some scholars, however, have taken issue with the notion that the ability to wage war without physically sending troops into a theater of battle will make the United States more likely to resort to force than in the past. As Steven Bucci of the Heritage Foundation notes:

> "We had the same argument with the development of a professional military, when critics asserted that having professionals would make it easier for us to go to war, because we would no longer have the thought of little Johnny and Susie from my neighborhood going to war. The Obama administration is very comfortable using special operations forces and drones because it seems cleaner, more professional, and has less public affairs downsides than sending a big army of our normal military that is filled up with kids from back home."
>
> "I don't know how you get around that debate. Is it easier for some guy smoking a cigar here in Washington to say, 'Yeah, let's send them to war'? Yes, I suppose. But when policymakers thought it was in our interest to do that in the past, they've never had very much reticence to do so. Now, if we do that a little cleaner, then yes, it's easier to send a drone in rather than sit and debate about what happens if a manned plane gets shot down and the pilot gets caught by the bad guys or dies."
>
> "Will this change the face of war and the whole decision-making process? I'm not sure. There are so many ways you can make that same argument. In that case, for example, one could argue that nobody should sit in congress or be the president that has not had a full military career—

> waded through the blood of their enemies and seen their friends killed—because without having seen and done those things, you cannot really make a fully informed decision to send others to war. We have not really stuck with that principle, though. And in some cases, people who *have* had those experiences are not necessarily making good decisions either."[212]

David Bell, writing in *New Republic*, adds that UAVs are not the first weapon to allow governments to strike opponents from a safe distance:

> "But if our current technology is new, the desire to take out one's enemies from a safe distance is anything but. There is nothing new about military leaders exploiting technology for this purpose…But it is far from certain that the arc of the story points in the dangerous direction feared by the critics."
>
> "…What the history of war makes clear is that the administration's embrace of 'remote control warfare' does not signal an abolition of restraints on war's destructive power. Using technology to strike safely at an opponent is as old as war itself. It has been seen in eras of highly controlled and restrained warfare, and in eras of unrestrained total war—and the present day, thankfully, belongs to the first category. Ultimately, restraints upon war are more a matter of politics than of technology. If you are concerned about American aggression, it is not the drones you should fear, but the politicians who order them into battle."[213]

As Prof. Daniel Byman observes, the ability to deploy UAVs actually gives policymakers more options for addressing conflict, and possibly for avoiding larger conflicts:

> "I would say the argument that governments may be more inclined to use force given the availability of UAVs is very true, but it needs to be qualified with a couple of things.
>
> "First, this could be a very good thing—that drones enable policy options that wouldn't otherwise be done. If you look at Pakistan, and you look at the reaction to the bin Laden raid, that was much worse than any drone strike in terms of their reaction. So to me, if we can do things with drones that won't inspire the same anger as boots on the ground, it's a good thing. It gives flexibility."
>
> "Secondly, if you look at Afghanistan, part of the reason we can draw down from Afghanistan is because of drones. We can do a lot of things remotely. It would be a much harder argument to make for the Afghan draw-down if we did not have the drone capability. So there are times where we actually avoid large deployments because we can do smaller deployments."
>
> "In the end, this is another instrument for the policymaker. I have no idea who's going to be president in three years or ten years. But I'm going to guess in the next thirty years there will be some presidents I like and some I don't. For the presidents I like, I'm excited that they get more options and for the ones I don't, I'll be nervous about that. But that's true of anything that increases government flexibility, and in general, I think government flexibility is a good thing. So yes, there's certainly the possibility that you could intervene more easily because you're not putting Americans at risk, and because it does not seem as much of an affront to sovereignty, but I'm not terribly worried about that issue."[214]

Byman added that the ability of the United States to deploy UAVs will not always automatically result in the decision to do so:

> "We only use drones in allied countries. One can divide the world into three categories: Allies who control their territories, enemies, and allies who do not control their territories. In countries belonging to that first category, which is most countries—if there's a problem, we call their government, and they arrest the perpetrators. Of the countries that remain, some are our enemies, and we don't use drones there. We don't drone in Iran, for example—we'll spy with drones, but there's an al-Qaeda presence in Iran, yet we don't take it out with drones. Why? Because, first of all, they'd probably shoot them down—but even if we could, it would be an act of war, a very big deal. So we're down to countries like Pakistan, Yemen, where the governments work with us."[215]

Setting a Bad Precedent

Another common policy criticism of the UAV program is that as other countries continue to acquire UAV capabilities, whether through importing the technology or through indigenous development, those countries will look to U.S. practice on using UAVs to target terrorists abroad to determine, and justify, their own operations—operations with which, in some instances, the United States would perhaps disagree. As *National Journal* previously framed it:

> "To implement this covert program, the administration has adopted a tool that lowers the threshold for lethal force by reducing the cost and risk of combat. This still-expanding counterterrorism use of drones to kill people, including its own citizens, outside of traditionally defined battlefields and established protocols for warfare, has given friends and foes a green light to employ these aircraft in extraterritorial operations that could not only affect relations between the nation-states involved but also destabilize entire regions and potentially upset geopolitical order."
>
> "Hyperbole? Consider this: Iran, with the approval of Damascus, carries out a lethal strike on anti-Syrian forces inside Syria; Russia picks off militants tampering with oil and gas lines in Ukraine or Georgia; Turkey arms a U.S.-provided Predator to kill Kurdish militants in northern Iraq who it believes are planning attacks along the border. Label the targets as terrorists, and in each case, Tehran, Moscow, and Ankara may point toward Washington and say, we learned it by watching you. In Pakistan, Yemen, and Afghanistan."[216]

In a similar vein, Prof. Robert Farley of the University of Kentucky asserts that American UAV use for lethal force is a major catalyst for a global "drone race":

> "…The technologies that made HMS Dreadnought such a revolutionary warship in 1906 were available before it was built; its dramatic appearance nevertheless transformed the major naval powers' procurement plans. Similarly, the Soviet Union and the United States accelerated nuclear arms procurement following the Cuban Missile Crisis, with the USSR in particular increasing its missile forces by nearly 20 times, partially in response to perceptions of vulnerability. So while a drone 'race' may have taken place even without the large-scale Predator and

> Reaper campaign in Pakistan, Yemen and Somalia, the extent and character of the race now on display has been driven by U.S. behavior. Other states, observing the effectiveness—or at least the capabilities—of U.S. drones will work to create their own counterparts with an enthusiasm that they would not have had in absence of the U.S. example."[217]

Micah Zenko of the Council on Foreign Relations agrees that US behavior in this regard does have influence over the behavior of other nations:

> "..Some people think that nothing any country does has any normative influence on anyone else. But if you don't think that your behavior has any normative influence on other countries, then we should shut down all of our websites, fire our public affairs officers, put out no public reports—but that's not something the United States government, under various parties, has agreed to…"
>
> "…I always point out there are examples of states that have refrained from developing certain lethal technologies or limited their development in ways that did have some normative influence on others. Blinding lasers is just one of them, space weapons is another…Israel has used drones inside of their territory and the UK has used drones in Afghanistan, but the US is the lead actor, and will remain so for quite a long time. So I think this is something on which the US should begin to engage with other emerging drone powers and discuss."
>
> "There are some countries you cannot have any normative influence over. I'm not looking to change Iranian behavior by what the US does. I'm not necessarily looking to change Venezuelan behavior. But there are some countries that will have this technology and may be constrained as to how they use it based in part on how the US engages other countries on its use. That's something worth pursuing."[218]

Prof. Daniel Byman of Georgetown University argues that transparency is key to shielding the United States from accusations of hypocrisy while still being critical of UAV strikes by other nations where appropriate:

> "…I am a huge believer in transparency…The Obama administration claims these things are more discriminate, they claim they're adhering to certain rules. So publish the data, show the criteria. What Obama said about killing Americans only if they're high-level al Qaeda, only if we can't arrest them, etc.—that's a very narrow claim of executive authority. I'd like to see similar claims in general—'only in these circumstances, under these rules, with these procedures for targeting' and so on..."
>
> "…Of course, the Russians and Chinese will still violate those norms. These are countries that are not upset about human rights violations. But we can hopefully limit it, hopefully push them in the right direction…"
>
> "By being more transparent ourselves, we can at least reduce the hypocrisy allegation—we can at least be able to say 'Don't carpet-bomb the village—that's not what we did.' Right now, I'm sure they could find a Pakistani NGO that said we carpet-bombed the village, and it's very hard for us to fight that if our answer is 'trust us.'"[219]

There are those, however, who are skeptical about the extent to which concern that the United States is setting a bad precedent through its use of UAVs should inform policy. The Heritage Foundation's Steven Bucci asserts that other nations will not be guided by America's example, but rather follow their own agendas:

> "My study of modern history and politics has shown me that if another country makes a decision based on their interests or calculations to do or not to do something, it doesn't matter a twig what America's done already. We have the same argument with the use of offensive malware in the cyber world. We had the same argument with battleships and torture. These countries are not going to say 'Let's wait and see if America does this, then we can do it.' Once they reach a point where they think it's in their interests to use whatever technique they're contemplating in order to accomplish an end, the question of whether America's already done it might be a convenient justification to try and defend the action after the fact, but it's probably not terribly relevant to [1] the decision to do it or not to do it; or [2] who gets condemned after the fact. Again, those are nice graduate school discussion points, but not terribly relevant in the policy-making arena."[220]

Prof. Kenneth Anderson argues that the United States already setting appropriate precedent in this area, and that UAV use as such should not be driven by this concern:

> "The United States, it is claimed, is arrogantly exerting its momentary technological advantage to do what it likes. It will be sorry when other states follow suit. But the United States does not use drones in this fashion and has claimed no special status for drones. The U.S. government uses drone warfare in a far more limited way, legally and morally, and entirely within the bounds of international law. The problem with China (or Russia) using drones is that they might *not* use them in the same way as the United States. The drone itself is a tool. How it is used and against whom—these are moral questions. If China behaves malignantly, drones will not be responsible. Its leaders will be."[221]

With respect to the outlook for a UAV "arms race", Joseph Singh of the Center for a New American Security argues that American UAV practice will not necessarily result in greater instances of problematic state behavior:

> "…[T]he narrow applications of current drone technology coupled with what we know about state behavior in the international system lend no credence to these ominous warnings…"
>
> "States launching drones must still weigh the diplomatic and political costs of their actions, which make the calculation surrounding their use no fundamentally different to any other aerial engagement…"
>
> "…Drones may make waging war more domestically palatable, but they don't change the very serious risks of retaliation for an attacking state. Any state otherwise deterred from using force abroad will not significantly increase its power projection on account of acquiring drones."[222]

Policy Trends and Ramifications

The three common policy criticisms and their rebuttals, outlined above, have been major features in the current debate over UAV strikes. Also important to this discussion, however, are assessments of policy *direction*—what the future may hold, or ought to hold, for such platforms from a policy perspective.

Policy Directions

Lt. Gen. David Deptula, USAF (Ret.) asserts that while UAVs will continue to come under scrutiny in the context of lethal force, the public will ultimately recognize their value as a national security tool:

> "I think in the general sense RPA use for these purposes will continue and the capabilities with respect to remotely piloted aircraft and sensors, and their ability to then engage to create a particular effect, will grow according to the advancements in technology associated with the sensors, as well as the means to achieve a particular outcome, whether it be lethal or non-lethal. I think that the recent interest in terms of the circumstances in which these tools may be used, will ultimately fall under more scrutiny, but I think over time with a proper education, people will come to realize that these are tools used by US security institutions to accomplish the goal of defending US security interests, and they are not something that is on the order of, say, the introduction of nuclear weapons. These are another set of tools in the national security toolbox that are available to the leadership to meet our nation's security goals."[223]

Victor Davis Hanson predicts greater American use of UAVs, provided certain conditions are met:

> "For a risk-averse, budget-cutting United States, seeking to protect itself from radical Islamic terrorists, drones will see even greater use—at least until the collateral toll, hits on more U.S. citizens, or the introduction of enemy counter-technologies renders them military, legally, or morally ineffective."[224]

Some policy scholars have also commented that what may be needed with respect to UAV strikes in the future is some sort of normative framework, including perhaps a treaty, in order to address proliferation concerns. For example, Micah Zenko, in a report published by the Council on Foreign Relations, makes several recommendations regarding international cooperation of UAV strike policy frameworks:

"International Cooperation"

"The United States should

- promote Track 1.5 or Track 2 discussions on armed drones, similar to dialogues with other countries on the principles and limits of weapons systems such as nuclear weapons or cyberwarfare;
- create an international association of drone manufacturers that includes broad participation with emerging drone powers that could be modeled on similar organizations like the Nuclear Suppliers Group;
- explicitly state which legal principles apply—and do not apply—to drone strikes and the procedural safeguards to ensure compliance to build broader international consensus;

- begin discussions with emerging drone powers for a code of conduct to develop common principles for how armed drones should be used outside a state's territory, which would address issues such as sovereignty, proportionality, distinction, and appropriate legal framework; and
- host discussions in partnership with Israel to engage emerging drone makers on how to strengthen norms against selling weapons capable systems."[225]

Zenko comments elsewhere that pursuit of a treaty on UAV strikes would not be a useful exercise:

> "A treaty is a waste of time—it won't get through the Senate. Rather, we should be focusing on the Copenhagen process regarding detainee policies that the Bush administration implemented—that's a great sort of model to emulate, addressing how we handle detainees that we pick up off of non-battlefield settings. It was important to do this because we wanted to get intelligence cooperation with allies and partners. They needed to understand how we do it, so it was clear we were not in gross violation of their own laws, or in particular, European Union law."[226]

Prof. Robert Farley asserts, however, that a treaty governing UAV strikes could conceivably come about under certain circumstances:

> "What is undeniable, however, is that we face a drone race, which inevitably evokes the question of arms control. Because they vary widely in technical characteristics, appearance and even definition, drones are poor candidates for 'traditional' arms control of the variety that places strict limits on number of vehicles constructed, fielded and so forth. Rather, to the extent that any regulation of drone warfare is likely, it will come through treaties limiting how drones are used."
>
> "Such a treaty would require either deep concern on the part of the major powers that advances in drone capabilities threatened their interests and survival, or widespread revulsion among the global public against the practice of drone warfare. The latter is somewhat more likely than the former, as drone construction at this point seems unlikely to dominate state defense budgets to the same degree as battleships in the 1920s or nuclear weapons in the 1970s. However, for now, drones are used mainly to kill unpleasant people in places distant from media attention. So creating the public outrage necessary to force global elites to limit drone usage may also prove difficult, although the specter of 'out of control robots' killing humans with impunity might change that. P.W. Singer, author of 'Wired for War,' argues that new robot technologies will require a new approach to the legal regulation of war. Robots, both in the sky and on the ground, not to mention in the sea, already have killing capabilities that rival those of humans. Any approach to legally managing drone warfare will likely come as part of a more general effort to regulate the operation of robots in war."[227]

Prof. Kenneth Anderson comments that from a policy perspective, UAVs are likely to change use of force paradigms:

> "A dozen years of war have set our matrix of conflict around fighting non-state actors and terrorist. Yet we are probably moving into a world in which there are going to be state to state armed encounters. We don't seem to have thought through what that's going to mean for drones, because they will just be regarded as another form of aircraft in state to state wars."

> "But also questions of things like neutrality and the ability to intervene across borders—what will be the legal conditions for weapons that provide a mechanism for projecting force that can be used with fewer harms to civilians, a smaller footprint of damage, and which is easier to decide to use because of its lower risks to your own forces and civilians generally, but also less attributable—easier to hide that use and deny responsibility for using it."
>
> "We're moving towards a new paradigm for belligerent use of force—belligerency that is short of full-on war. The question is: are the rules we have adequate for that?"[228]

Of course, some of the issues raised with respect to the policy direction of American UAV strikes imply that the United States will itself use armed UAVs in carrying out lethal force. In light of previous observations, however, that the vast majority of UAV missions are for ISR purposes, it is worth noting Micah Zenko's written commentary on the role of American ISR capabilities in the lethal operations of others. Though not commenting directly on legal ramifications, Zenko made the following observations regarding the increasing frequency of situations in which the United States provides UAV-obtained intelligence to other nations, which then carry out lethal force using that intelligence:

> "When the United States provides other states or non-state actors with the capabilities that enable lethal operations—without which they would not happen—it bears primary responsibility for the outcome. Whatever drone strike reforms the White House offers, or if additional congressional hearings are held, they must take into account America's troubling role in client-state targeted killings. Consider some of the most egregious recent examples which the United States directly abetted:…"
>
> "…**Northern Iraq**. In November 2007, the United States opened a combined 'intelligence fusion cell' in Ankara, Turkey, where, according to a leaked U.S. diplomatic cable: 'We have made available to the Turks a dedicated RC-135 Rivet Joint aircraft, U-2 imagery, and full motion video from a Predator....U.S. and Turkish personnel work side-by-side to analyze incoming intelligence from these systems.' As a Pentagon official characterized the cooperation soon after the Ankara cell opened, the United States was 'essentially handing them their targets.' Every State Department Country Reports on Human Rights Practices released since 2007 notes instances of civilians being killed in Turkish counterterrorism operations against suspected PKK militants, though there is never any mention of U.S. culpability."
>
> "In December 2011, a U.S. drone provided the initial video that led to a Turkish airstrike which killed 34 civilians, including 17 children. As a senior Pentagon official doth professed too much: 'The Turks made the call. It wasn't an American decision.' The recently released State Department human rights report merely noted the catastrophe: 'Opposition and human rights organizations alleged that the incident was the result of a failure to implement adequate controls to safeguard civilian life.' Unmentioned is what controls at all are in place to prevent U.S.-supplied intelligence from being used in future Turkish airstrikes that place civilians at risk…"
>
> "It is important for U.S. policymakers to consider lethal operations in which a foreign finger is on the trigger, as this will likely increase over time. The core objective of the Pentagon's expan-

> sion of 'building partnership capacity' initiatives is to train, equip, and share intelligence with other militaries—to enable them to capture or kill those individuals that threaten U.S. interests. But when those operations can only be conducted and sustained with direct U.S. assistance, then the United States should ultimately be accountable."[229] (emphasis added)

Policy Ramifications of Further Restricted Use

As we have seen, there exists a range of opinion on whether the use of UAVs to undertake lethal force abroad as the Obama administration has done is in compliance with international and domestic laws governing the use of force, and whether such use—even if legal—constitutes wise policy. As policymakers grapple with these important questions, however, it is critical that such deliberations be informed by consideration of what happens if we impose tighter restraints on UAV use for such purposes, whether for legal or policy reasons, or both.

Prof. Kenneth Anderson asserts that if the Obama administration were to give in to criticisms of UAVs and drastically restrict or drop their use altogether in the context of lethal force abroad, such a step would be counterproductive both from a counter-terrorism perspective and a civilian protection perspective:

> "From an on-the-ground perspective, there are two consequences. One is that terrorists would basically get a free pass in terms of being able to plot in peace, which virtually guarantees that there will be large-scale successful terrorist attacks against civilians, if not against the United States targets, then certainly in the soft underbelly of South Asia, Africa, and the Middle East."
>
> "The second consequence, however, is that we send a signal to regimes, governments, states in the weakly governed areas of Africa and the Middle East, that they are on their own when it comes to confronting Islamist insurgencies that are looking to replace them as part of an Islamist agenda. Our drones are their air force against these insurgencies. As a result, those governments will either make accommodations with those forces, or they will wind up intensifying their civil wars against them—something likely to bring about more civilian deaths if regimes are really prepared to fight it out to the bitter end and a terrible fate for populations who find themselves under the rule of radical Islamists."[230]

Lt. Gen. David Deptula, USAF (Ret.) shares some of Anderson's concerns:

> "The fact of the matter is, [curtailing RPA use] would be significantly injurious to and do significant damage to [the ability of] the United States to protect our people, allies, and uphold the laws of international armed conflict, and meet the objectives that we seek in the context of securing peace and stability around the world."[231]

Steven Bucci of the Heritage Foundation comments regarding the effect of President Obama's 23 May remarks at National Defense University on the ability to target terrorists:

> "The terrorists already use asymmetric means, hide among civilians, keep civilians around them, because they know Americans have problems with hitting non-combatants. We already

> take extraordinary efforts to minimize any sort of collateral casualties in these situations, whether in a tactical combat situation or targeted killing situation, but saying 'near zero' certainty of it—that's essentially saying we're not going to shoot anymore, because there's very little in life that's a hundred percent certain. Unless you get the target walking around the desert by himself, your chances of hurting somebody else with these things…they have explosive warheads on them. They blow up, and devices that blow up big enough to kill a human can kill other humans that happen to be in the vicinity. So that level of standard would really basically eliminate the targeted killing program."[232]

Prof. Daniel Byman, on the other hand, asserts that it is not a foregone conclusion that all terrorists would choose to further shield themselves with civilians as a result of stricter rules regarding civilian casualties from UAV strikes, and that further data would be required to determine outcomes on the ground:

> "Some militants are very ruthless. However, many are actually concerned about their families and so on. So I think you would see a range. I think you'll see some trying to co-locate more and some that really actually do not believe this is war, believe themselves to be honorable—we might not see them that way, but the idea that they would deliberately endanger women and children, some would not want to…so I certainly think more frequent instances of using civilians as human shields are possible. Now, on a whiteboard, it makes sense—we react, they react. But I'd like to see on a whiteboard: We started to do drones in Yemen on X date—did we see a militant response for them travelling more with women and children after that? You can answer that question with the right data. I think our government has it, but I don't know."[233]

Steven Bucci adds with respect to the on-the-ground effects of a "drone court", were such an idea to be implemented:

> "The intel for these things is, frankly, very fleeting. Having to go to a court to get permission to fire—aside from the constitutional issues raised by what I think would be an inappropriate limiting of the executive's power in the middle of a fight, it just wouldn't be fast enough. It would have to be essentially, again, like the rock hard standard of a hundred percent certainty—you'd basically be ending the program. It would be a waste of time to fly the drones around to find people, because you're never going to get the kind of response from a court that you should in a way that gives you enough time to do it."[234]

Conclusion

The preceding pages have sought to provide readers with a representative sample of the major legal and policy debates that surround United States use of UAVs for lethal force abroad, and to offer insights from experts as to what the future may hold for the deployment of this technology in the military and intelligence arenas. Additionally, the concluding pages of this study give a brief window into the thinking of some experts on the policy consequences of placing further restrictions on the use of UAVs for such purposes.

By design and by necessity, this study is not comprehensive and does not fully capture the wide range of analysis that has been done on these subjects. Rather, it is intended as a point of departure for policy-makers, public policy analysts, and others who will have to grapple with what effect advances in unmanned aerial technology will have, or should have, on how the United States defends itself and its national interests.

Those who do engage on these issues will be doing so against a backdrop of trend-lines pointing towards increased UAV usage in the future.

First, asymmetric non-state actors plotting lethal attacks in inaccessible areas of the world continue to pose challenges for the United States. For example, as of this writing, al-Shabaab—a terrorist organization that has been described as al Qaeda's "proxy" in Somalia—has recently waged an assault on a shopping center in Nairobi, Kenya, resulting in nearly seventy killed and nearly two hundred wounded, mostly civilians.[235] This attack has prompted increased concern that al-Shabaab could target Americans or American interests more directly in the future.[236] Although governments throughout Africa are acquiring UAVs to track terrorists and for other purposes, and the United States is providing advisors and other technical support to those governments in this regard,[237] it remains to be seen whether these developments will mitigate the need for direct U.S. action via UAV strikes against terrorist organizations in that part of the world.

Second, as of this writing, the United States government is still subject to "sequestration," deep across-the-board spending cuts mandated by the Budget Control Act (BCA) of 2011. On the military side of national security, the BCA requires defense cuts in the amount of roughly $500 billion over the next decade. As the military faces consistent pressure to do "more with less" in the current fiscal environment, it is noteworthy that some analysts have asserted that UAVs are more cost-effective than other options, such as manned fighter jets.[238]

Finally, although touched on only briefly in this study, further analysis may be required regarding UAVs as an increasingly prominent feature of American defense posture towards *conventional* state actors such as China. Increased UAV use by the United States and China could have significant ramifications for East Asian security in the years ahead, and American national security will be well-served by heightened attention to such developments.[239]

Endnotes

[1] "Remarks by the President at the National Defense University," The White House, May 23, 2013. Accessed August 13, 2013, http://www.whitehouse.gov/the-press-office/2013/05/23/remarks-president-national-defense-university.

[2] David Deptula, "Retired Lt. Gen. David Deptula: Drones Best Weapons We've Got For Accuracy, Control, Oversight; Critics Don't Get It," *Breaking Defense*, February 15, 2013, accessed August 14, 2013, http://breakingdefense.com/2013/02/15/retired-gen-deputula-drones-best-weapons-weve-got-for-accurac/

[3] Jim Garamone, "From U.S. Civil War to Afghanistan: A Short History of UAVs," *American Forces Press Service* April 16, 2002, accessed August 15, 2013, http://www.defense.gov/News/NewsArticle.aspx?ID=44164; see also Lexi Krock, "Timeline of UAVs," *NOVA Science Programming on Air and Online,* accessed August 15,2013, http://www.pbs.org/wgbh/nova/spiesfly/uavs.html,.

[4] Garamone, op. cit.; See also Fred Kaplan, "The World as Free-Fire Zone", *MIT Technology Review,* June 7, 2013, accessed August 15, 2013 http://www.technologyreview.com/featuredstory/515806/the-world-as-free-fire-zone/

[5] Kaplan, op. cit. See also: "Living Under Drones," Stanford International Human Rights and Conflict Resolution Clinic / Global Justice Clinic at NYU School of Law accessed August 15, 2013, http://www.livingunderdrones.org/background-and-context/.

[6] "Public Law 107-40, September. 18, 2001" U.S. Government Printing Office, accessed June 18, 2013, http://www.gpo.gov/fdsys/pkg/PLAW-107publ40/pdf/PLAW-107publ40.pdf.

[7] Robert Chesney, Jack Goldsmith, Matthew C. Waxman, and Benjamin Wittes, "Is the 'War on Terror' Lawful?", *Real Clear Politics*, February 25, 2013, accessed September 8, 2013, http://www.realclearpolitics.com/articles/2013/02/25/is_the_war_on_terror_lawful_117146.html .

[8] Dylan Matthews, "Everything you need to know about the drone debate, in one FAQ", *The Washington Post*, March 8, 2013, accessed June 19, 2013, http://www.washingtonpost.com/blogs/wonkblog/wp/2013/03/08/everything-you-need-to-know-about-the-drone-debate-in-one-faq/.

[9] "The Drone War in Pakistan", New America Foundation, last modified June 8, 2013, accessed 19 June 2013, http://natsec.newamerica.net/drones/pakistan/analysis.

[10] *Ibid.*

[11] Matthews, op. cit.

[12] "Revealed: US and Britain launched 1,200 drone strikes in recent wars", Bureau of Investigative Journalism, December 4 2012, accessed June 19, 2013, http://www.thebureauinvestigates.com/2012/12/04/revealed-us-and-britain-launched-1200-drone-strikes-in-recent-wars/.

[13] Declan Walsh and Eric Schmitt, "Drone Strike Killed No. 2 in Al Qaeda, U.S. Officials Say", *The New York Times*, June 5, 2012, accessed June 19, 2013, http://www.nytimes.com/2012/06/06/world/asia/qaeda-deputy-killed-in-drone-strike-in-pakistan.html?pagewanted=all.

[14] Jon Boone, "Pakistan: senior Taliban militants killed by US drone strike", *The Guardian*, May 29, 2013, accessed June 19, 2013, http://www.guardian.co.uk/world/2013/may/29/senior-talibans-killed-us-drone-pakistan.

[15] Rob Crilly, "American drones thought to have killed al-Qaeda's chief military commander", *The Telegraph*, June 4, 2011, accessed 19 June 2013, http://www.telegraph.co.uk/news/worldnews/al-qaeda/8556854/American-drones-thought-to-have-killed-al-Qaedas-chief-military-commander.html.

[16] Daniel L. Byman, "Why Drones Work: The Case for Washington's Weapon of Choice", *Foreign Affairs*, July/August 2013, accessed June 20, 2013, http://www.brookings.edu/research/articles/2013/06/17-drones-obama-weapon-choice-us-counterterrorism-byman.

[17] Kenneth Anderson, "The Case for Drones", *Commentary Magazine*, June 2013, accessed June 20, 2013, http://www.commentarymagazine.com/article/the-case-for-drones (subscription required)

[18] Robert Valdes, "How the Predator UAV Works", *How Stuff Works*, accessed August 15, 2013, http://science.howstuffworks.com/predator.htm.

[19] David Deptula, "Drones Best Weapons We've Got For Accuracy, Control, Oversight; Critics Don't Get It", Breaking Defense, February 15, 2013, accessed 14 Aug. 2013, http://breakingdefense.com/2013/02/15/retired-gen-deputula-drones-best-weapons-weve-got-for-accurac/.

[20] *Ibid.*

[21] "Drones: What are they and how do they work?", BBC News South Asia, January 31, 2012 accessed August, 15, 2013, http://www.bbc.co.uk/news/world-south-asia-10713898.

[22] Steven Bucci, interviewed by Ben Lerner, tape recording, Washington DC, July 25, 2013.

[23] Tim Hsia and Jared Sperli, "How Cyberwarfare and Drones Have Revolutionized Warfare", *The New York Times*, June 17, 2013, accessed August 18, 2013, http://atwar.blogs.nytimes.com/2013/06/17/how-cyberwarfare-and-drones-have-revolutionized-warfare/.

[24] This study examines the context of, and implications for, the President's speech in greater detail in the sections on law and policy that follow this section on technology.

[25] Philip Ewing, "Obama's booming drone business", *Politico*, May 23, 2013, accessed August 16, 2013, http://www.politico.com/story/2013/05/despite-obama-speech-drone-role-to-only-increase-91837.html.

[26] John T. Bennett, "Revised Obama Strategy Could Slow Armed UAV Market", *Defense News*, June 3, 2013, accessed August 16, 2013, http://www.defensenews.com/article/20130603/DEFREG02/306030020/Revised-Obama-Strategy-Could-Slow-Armed-UAV-Market.

[27] *Ibid.*

[28] David Bither, interviewed by Ben Lerner, tape recording, Washington DC, July 29, 2013.

[29] Prof. Kenneth Anderson, interviewed by Ben Lerner, tape recording, Washington DC 9 Aug. 2013.; see also: David Deptula, interviewed by Ben Lerner, tape recorder, Washington DC, July 19, 2013.

[30] Christopher P. Cavas, "US Navy Moves Ahead to Develop Unmanned Carrier Aircraft", *Defense News,* August 14, 2013, accessed August 15, 2013, http://www.defensenews.com/article/20130814/DEFREG02/308140022/Us-Navy-Moves-Ahead-Develop-Unmanned-Carrier-Aircraft.

[31] David Axe, "We Now Know EXACTLY How Much Ass the Navy's New Killer Drone Will Kick", *War is Boring*, July 5, 2013, accessed July 5, 2013, https://medium.com/war-is-boring/85b3bdabf14b.

[32] Cavas, op. cit.

[33] Brian Jones, "This Drone Test Changes Everything About Unmanned Aerial Warfare", *Business Insider Australia*, July 10, 2013, accessed 10 July 2013, http://www.businessinsider.com.au/x-47b-drone-lands-on-aircraft-carrier-2013-7.

[34] Interview with David Bither, op. cit.

[35] *Ibid.*

[36] Interview with Kenneth Anderson, op. cit.

[37] Drew F. Cohen, "Drones Off The Leash", *U.S. News and World Report*, July 25, 2013, accessed September 24, 2013, http://www.usnews.com/opinion/articles/2013/07/25/autonomous-drones-and-the-ethics-of-future-warfare.

[38] P.W. Singer, "The Global Swarm", *Foreign Policy*, March 11, 2013, accessed August 16, 2013, http://www.foreignpolicy.com/articles/2013/03/11/the_global_swarm?print=yes&hidecomments=yes&page=full .

[39] David Deptula, interviewed by Ben Lerner, E-mail, Washington DC, August 23, 2013.

[40] Interview with David Bither, op. cit.

[41] J. Michael Barrett, "The New Revolution In Drone Warfare", *Homeland Security Today*, 28 July 2013, accessed August 16, 2013, http://www.hstoday.us/blogs/guest-commentaries/blog/the-new-revolution-in-drone-warfare/3b4ffe714b1997c50e98cd36570c5bab.html.

[42] *Ibid.*

[43] P.W. Singer, op. cit.

[44] Interview with David Bither, op. cit.

[45] Aram Roston, "US Seeks to Defend American Officials from Targeted Killings", *Defense News*, June10, 2013, accessed August 19, 2013, http://www.defensenews.com/article/20130610/C4ISR01/306100011/.

[46] Maya Shwayder and Lisa Mahapatra, "Drones: Which Countries Have Them For Surveillance and Military Operations?", *International Business Times*, May 18, 2013, accessed August 19, 2013, http://www.ibtimes.com/drones-which-countries-have-them-surveillance-military-operations-map-1264271.

[47] "Colombia to Develop Its Own Drone Program to Combat Drug-Trafficking", *Fox News*, October 26, 2012, accessed 19 Aug. 2013, http://latino.foxnews.com/latino/news/2012/10/26/colombia-to-develop-its-own-drone-program-to-combat-drug-trafficking/.

[48] Keir Simmons and Gil Aegerter, "The race is on: Manufacturer sets sights on market for armed drones", *NBC News*, May 28, 2013, accessed August, 19 2013, http://investigations.nbcnews.com/_news/2013/05/28/18472665-the-race-is-on-manufacturer-sets-sights-on-market-for-armed-drones?lite.

[49] *Ibid.*

[50] David Barnett, "Israeli Air Force intercepts Hezbollah drone off coast of Israel", *The Long War Journal*, April 25, 2013, accessed August 19, 2013, http://www.longwarjournal.org/archives/2013/04/israeli_air_force_in-print.php.

[51] *Ibid.*

[52] Gili Cohen, "IDF attacks Gaza workshops, disrupts Hamas' drone production", *Haaretz*, November 16, 2012, accessed August 19, 2013, http://www.haaretz.com/news/diplomacy-defense/idf-attacks-gaza-workshops-disrupts-hamas-drone-production.premium-1.478415.

[53] Simmons and Aegerter, op cit.

[54] P.W. Singer, op. cit.

[55] Interview with David Bither, op. cit.

[56] *Ibid.*

[57] Roston, op. cit.

[58] Darin L. Gaub, "Unready to stop UAVs", *Defense News*, December 1, 2011, accessed August 19, 2013, http://www.defensenews.com/article/20111201/AFJ02/112010312/Unready-stop-UAVs .

[59] Interview with David Bither, op. cit.

[60] Steven Groves, "Drone Strikes: The Legality of U.S. Targeting of Terrorists Abroad", *Heritage Foundation*, April 10, 2013, accessed August 30, 2013, http://www.heritage.org/research/reports/2013/04/drone-strikes-the-legality-of-us-targeting-terrorists-abroad (internal citations omitted)

[61] "IHL and other legal regimes—jus ad bellum and jus in bello", International Committee of the Red Cross (ICRC), November 29, 2010, accessed 20 June 2013, http://www.icrc.org/eng/war-and-law/ihl-other-legal-regmies/jus-in-bello-jus-ad-bellum/overview-jus-ad-bellum-jus-in-bello.htm.

[62] Grant, Rebecca, "In Search of Lawful Targets", *Air Force Magazine*, February 2003, accessed August 7, 2013, http://www.airforcemag.com/MagazineArchive/Pages/2003/February%202003/0203targets.aspx.

[63] Anthony Clark Arend, "International Law and the Preemptive Use of Military Force", *The Washington Quarterly*, Spring 2003, accessed October 1, 2013,)https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCsQFjAA&url=http%3A%2F%2Fwww.cfr.org%2Fcontent%2Fpublications%2Fattachments%2Fhighlight%2F03spring_arend.pdf&ei=qphLUpfNOYe48wTSrYG4DQ&usg=AFQjCNEyxC5wYCNAMrIDUP7-DkMBBjbunA&bvm=bv.53371865,d.eWU.

[64] See id., citing Letter from Mr. Webster to Lord Ashburton, August 6 1842, cited in Lori F. Damrosch et al., *International Law: Cases and Materials* (2001), p. 923, and Letter from Mr. Webster to Mr. Fox, April 24, 1841, cited in Damrosch et al.

[65] United Nations Charter, Article 2(4) http://www.un.org/en/documents/charter/

[66] *Ibid.* Article 39

[67] *Ibid.* Article 42

[68] *Ibid.*, Article 51

[69] Clark, op. cit.

[70] Ashley S. Deeks, "'Unwilling or Unable': Toward a Normative Framework for Extraterritorial Self-Defense", *Virginia Journal of International Law*, Vol 52, No. 3 (2012), accessed 1 Oct. 2013 http://www.vjil.org/assets/pdfs/vol52/issue3/Deeks_Post_Production.pdf

[71] Michael N. Schmitt, "Drone Attacks Under the Jus Ad Bellum and Jus In Bello: Clear the 'Fog of Law'", March 2, 2011, accessed September 2, 2013, http://ssrn.com/abstract=1801179.

[72] President Barack Obama, "Remarks by the President at the National Defense University", op. cit.

[73] Harold Hongju Koh, "The Obama Administration and International Law", U.S. Department of State, March 25, 2010, accessed October 1, 2013, http://www.state.gov/s/l/releases/remarks/139119.htm.

[74] John O. Brennan, "The Ethics and Efficacy of the President's Counterterrorism Strategy", Woodrow Wilson International Center for Scholars, April 30, 2012, accessed October 2, 2013, http://www.wilsoncenter.org/event/the-efficacy-and-ethics-us-counterterrorism-strategy.

[75] John Brennan, "Strengthening Our Security by Adhering to Our Values and Laws", White House, September 16, 2011, accessed October 2, 2013, http://www.whitehouse.gov/the-press-office/2011/09/16/remarks-john-o-brennan-strengthening-our-security-adhering-our-values-an.

[76] Robert Chesney , "Remarks as Prepared for Delivery By Attorney General Eric Holder at Northwestern University School of Law", Lawfare, March 5, 2012, accessed 2 Oct. 2013, http://www.lawfareblog.com/2012/03/text-of-the-attorney-generals-national-security-speech/.

[77] *Ibid.*

[78] Steven Groves, interviewed by Ben Lerner, tape recorder, Washington DC, July 12, 2013.

[79] Gabor Rona, interviewed by Ben Lerner, tape recorder, Washington DC August 7, 2013.

[80] Stanford International Human Rights and Conflict Resolution Clinic and Global Justice Clinic at NYU School of Law, "Legal Analysis", *Living Under Drones*, 2012, accessed 2 Oct. 2013 http://www.livingunderdrones.org/report-legality/ (internal citation omitted) According to the *Wall Street Journal*: "Signature strikes target groups of men believed to be militants associated with terrorist groups, but whose identities aren't always known." See Adam Entous, Siobhan Gorman, and Julian Barnes, "U.S. Tightens Drone Rules", November 4, 2011. Accessed 3 Sept. 2013 http://online.wsj.com/article/SB10001424052970204621904577013982672973836.html

[81] Prof. Mary Ellen O'Connell, "Unlawful Killing with Combat Drones", *Notre Dame Law School Legal Studies Research Paper No. 09-43*, Nov. 2009, accessed 2 Oct. 2013, internal citations omitted https://webspace.utexas.edu/rmc2289/LT/Mary%20Ellen%20OConnell%20on%20Drones.pdf

[82] Prof. Jordan Paust, "Self-Defense Targetings of Non-State Actors and Permissibility of U.S. Use of Drones in Pakistan", University of Houston Public Law and Legal Theory Series, Jan. 2010, accessed Oct. 2, 2013 http://www.law.fsu.edu/journals/transnational/vol19_2/paust.pdf

[83] O'Connell, "Unlawful Killing with Combat Drones", op. cit. (internal citations omitted)

[84] Paust, op. cit.

[85] Interview with Kenneth Anderson, op. cit.

[86] O'Connell, "Unlawful Killing with Combat Drones", op. cit.

[87] Eric Posner, "The Robot Killer Wars: The New Laws We Need for Drones", *Slate*, 15 May 2013, accessed Oct. 2 2013, http://www.slate.com/articles/news_and_politics/view_from_chicago/2013/05/drone_warfare_and_spying_we_need_new_laws.html

[88] Rebecca Lowe, "International law 'not equipped' to deal with drone attacks", *IBA Global Insight*, June 10 2013, accessed Oct. 2, 2013, http://www.ibanet.org/Article/Detail.aspx?ArticleUid=065968d4-0503-46e7-a0a0-d8daeac4d446

[89] Prof. Amos Guiora, interviewed by Ben Lerner, tape recording, Washington DC, July 26 2013

[90] Interview with Prof. Kenneth Anderson, op. cit.

[91] Interview with Steven Groves, op. cit.

[92] Interview with Gabor Rona, op. cit.

[93] Lt. Dennis Harbin, "Now Hear This—We Need a New Legal Code for the Drone War", *Proceedings Magazine*, June 2013, accessed Oct. 3, 2013, http://www.usni.org/magazines/proceedings/2013-06/now-hear-we-need-new-legal-code-drone-war

[94] Prof. John Yoo, "Assassination or Targeted Killings After 9/11", *New York Law School Law Review*, Vol. 56, 2011/2012, accessed Oct. 10, 2013, http://ssrn.com/abstract=2233689

[95] David Bethlehem, "Self-Defense Against an Imminent or Actual Armed Attack by Nonstate Actors" (citing Lord Goldsmith, House of Lords, April 2004) *The American Journal of International Law*, Vol. 106, 2012, accessed Aug. 26, 2013, http://www.asil.org/pdfs/ajil/Daniel_Bethlehem_Self_Defense_AJIL_ARTICLE.PDF

[96] *Ibid.*

[97] *Ibid.* Internal footnotes omitted for readability, though readers are encouraged to review original source for Bethlehem's important contextual commentary.

[98] Prof. Ashley Deeks, "Readings: Daniel Bethlehem on Principles Governing Self-Defense Against Non-State Actors", *Lawfare Blog*, Jan. 10, 2013, accessed Oct. 2, 2013, http://www.lawfareblog.com/2013/01/readings-daniel-bethlehem-on-principles-governing-self-defense-against-non-state-actors/

[99] Rosa Brooks, "The Real Reason the Limits of Drone Use Are Murky: We Can't Decide What 'Terrorists' or 'Conflict' Mean", *The Atlantic*, Aug. 20, 2013, accessed Aug. 26, 2013 http://www.theatlantic.com/international/archive/2013/08/the-real-reason-the-limits-of-drone-use-are-murky-we-cant-decide-what-terrorists-or-conflict-mean/278739/

[100] See Geneva Conventions, Common Article 2

[101] See Geneva Conventions, Common Article 3

[102] International Committee of the Red Cross, "How is the Term "Armed Conflict" Defined in International Humanitarian Law?", *ICRC Opinion Paper*, March 2008, accessed Aug. 26, 2013, http://www.icrc.org/eng/assets/files/other/opinion-paper-armed-conflict.pdf

[103] Kenneth Anderson, "Targeted Killing and Drone Warfare: How We Came to Debate Whether There Is a 'Legal

Geography of War' (April 2011)," Future Challenges in National Security and Law, edited by Peter Berkowitz, accessed Aug. 30, 2013, http://www.futurechallengesessays.com

[104] *Prosecutor v. Tadic,* "Decision on the Defence Motion for Interlocutory Appeal on Jurisdiction", International Criminal Tribunal for the Former Yugoslavia, IT-94-1-A, para. 70, Oct. 2, 1995, accessed Aug. 30, 2013, http://www.icty.org/x/cases/tadic/acdec/en/51002.htm

[105] ICRC, op. cit.

[106] See Groves, "Drone Strikes: The Legality of U.S. Targeting of Terrorists Abroad", op. cit.

[107] Interview with Prof. Kenneth Anderson, op. cit.

[108] Prof. Robert P. Barnidge, Jr., "A Qualified Defense of American Drone Attacks in Northwest Pakistan Under International Humanitarian Law", *Boston University International Law Journal*, Vol. 30, No. 2, accessed Aug. 30, 2013, http://www.bu.edu/law/central/jd/organizations/journals/international/volume30n2/documents/article_barnidge.pdf

[109] Prof. Peter Margulies, "Networks in Non-International Armed Conflicts: Crossing Borders and Defining 'Organized Armed Group', 89 Int'l L. Stud. 54 (2013), accessed Oct. 2, 2013, http://www.usnwc.edu/getattachment/78ee94eb-6120-4e0d-93f8-c91bdfedf6aa/GoW--Margulies-Final-03072013-pdf.aspx

[110] Groves, "Drone Strikes: The Legality of U.S. Targeting Terrorists Abroad", op. cit. (internal citations omitted)

[111] John F. Burns, "U.N. Panel to Investigate Rise in Drone Strikes", *The New York Times*, Jan. 24, 2013, accessed Aug. 30, 2013 http://www.nytimes.com/2013/01/25/world/europe/un-panel-to-investigate-rise-in-drone-strikes.html?_r=1&&pagewanted=print

[112] Ben Brumfield and Mark Morgenstein, "Drones killing innocent Pakistanis, U.N. official says", *CNN*, Mar. 15, 2013, accessed June 20, 2013 http://www.cnn.com/2013/03/15/world/asia/u-n-drone-objections

[113] Prof. Mary Ellen O'Connell, "Lawful Use of Combat Drones", *Hearing: Rise of the Drones II: Examining the Legality of Unmanned Targeting*, April 28, 2010, accessed Aug. 30, 2013 https://www.fas.org/irp/congress/2010_hr/042810oconnell.pdf (citing Christopher Greenwood, *War, Terrorism and International Law*, 56 Curr. Leg. Probs. 505, 529 (2004))

[114] Prof. Rosa Brooks, "Testimony Before the Senate Judiciary Subcommittee on the Constitution, Civil Rights, and Human Rights", *Hearing: The Constitutional and Counterterrorism Implications of Targeted Killing*, April 23, 2013, accessed Aug. 30, 2013, http://www.judiciary.senate.gov/pdf/04-23-13BrooksTestimony.pdf

[115] *Ibid.*

[116] Groves, "Drone Strikes: The Legality of U.S. Targeting Terrorists Abroad", op. cit.

[117] Philip Zelikow, "Drones and the Rule of Law and War", Bipartisan Policy Center panel, May 1, 2013, accessed Aug. 31, 2013, http://bipartisanpolicy.org/events/2013/05/drones-and-rule-law-and-war

[118] See International and Operational Law Department, The Judge Advocate General Legal Center & School, U.S. Army, *Operational Law Handbook*, 2011, accessed Sept. 1, 2013, http://www.loc.gov/rr/frd/Military_Law/pdf/operational-law-handbook_2011.pdf. With respect to Additional Protcol I of the Geneva Conventions, the Army Operational Law Handbook states: "…the United States is not a party to AP I. The United States does, however, adhere to many of AP I's provisions as a matter of policy and views some of them as CIL. This handbook takes no position on which provisions constitute CIL and which provisions are followed as a matter of policy."

[119] 1907 Hague Convention IV Respecting the Laws and Customs of War on Land, Oct. 18, 1907, art. 23(g), *reprinted* in *Documents on the Laws of War*, at 78 (Adam Roberts & Richard Guelff, 2000)

[120] *Operational Law Handbook*, op. cit., p. 11

[121] *Ibid.*

[122] *Ibid.*, p. 12

[123] See Michael J. Matheson, *Session One: The United States Position on the Relation of Customary International Law to the 1977 Protocols Additional to the 1949 Geneva Conventions,* Address at the Sixth Annual American Red Cross-Washington College of Law Conference on International Humanitarian Law: A Workshop on Customary International Law and the 1977 Protocols Additional to the 1949 Geneva Conventions, reprinted in 2 Am. U.J. Int'l. L. & Policy 415 (1987)

[124] Hague IV, art. 23(e), Roberts & Guelff at 77, infra.; see also *Operational Law Handbook*, op. cit., p. 12-13.

[125] Pres. Barack Obama, "Remarks by the President at National Defense University," op. cit.

[126] "Fact Sheet: U.S. Policy Standards and Procedures for the Use of Force in Counterterrorism Operations Outside the United States and Areas of Active Hostilities", The White House, May 23, 2013, accessed Sept. 2 2013, http://www.whitehouse.gov/the-press-office/2013/05/23/fact-sheet-us-policy-standards-and-procedures-use-force-counterterrorism

[127] John O. Brennan, "The Ethics and Efficacy of the President's Counterterrorism Strategy", op. cit.

[128] Harold Hongju Koh, "The Obama Administration and International Law", op. cit.

[129] Steven Groves, "Drone Strikes: The Legality of U.S. Targeting Terrorists Abroad", op. cit.

[130] *Ibid.*

[131] Interview with Prof. Kenneth Anderson, op. cit.

[132] *Ibid.*

[133] *Ibid.*

[134] Charles Dunlap, Jr., "Detailed Legal Position on Terrorists is Needed", *Tampa Bay Times*, Feb. 6, 2013, accessed Sept. 2, 2013, http://www.tampabay.com/opinion/columns/detailed-legal-position-on-terrorists-is-needed/1274063; Dunlap was responding to a February 2013 Department of Justice memo outlining the views of the Obama administration on when a U.S. citizen who is a "senior operational leader of Al-Qa'ida or an Associated Force" may be targeted. Because this study is not addressing the issue of targeting a U.S. citizen, the author has chosen to focus on the parts of Dunlap's commentary most directly

relevant to *jus in bello* considerations generally. The full Justice Department memo can be found here: http://msnbcmedia.msn.com/i/msnbc/sections/news/020413_DOJ_White_Paper.pdf

[135] Prof. John Yoo, interviewed by Ben Lerner, E-mail, 9 Aug. 2013

[136] Schmitt, 2011, op. cit.

[137] Interview with Gabor Rona, op. cit.

[138] *Ibid.*

[139] Interview with Prof. Amos Guiora, op. cit.

[140] O'Connell, "Unlawful Killing with Combat Drones", op. cit. (internal citations omitted)

[141] President Barack Obama, "Remarks by the President at National Defense University," op. cit.

[142] John Yoo, "Obama's Speech: No More Drone Strikes?", *National Review Online*, May 23, 2013, accessed Sept. 4, 2013, http://www.nationalreview.com/corner/349214/%5Btitle-raw%5D-john-yoo

[143] Interview with Prof. Kenneth Anderson, op. cit.

[144] Interview with Steven Groves, op. cit.

[145] Interview with Gabor Rona, op. cit.

[146] Interview with Prof. Amos Guiora, op. cit.

[147] Interview with Steven Groves, op. cit.

[148] Interview with Gabor Rona, op. cit.

[149] Interview with Prof. Kenneth Anderson, op. cit.

[150] Human Rights Watch and the International Human Rights Clinic at Harvard Law School, "Losing Humanity: The Case against Killer Robots", Nov. 2012, accessed Sept. 5, 2013 http://www.hrw.org/sites/default/files/reports/arms1112_ForUpload.pdf

[151] *Ibid.*

[152] Gabor Rona, interviewed by Ben Lerner, E-mail, Aug. 22, 2013

[153] Steven Groves, interviewed by Ben Lerner, E-mail, Aug. 22, 2013

[154] Authorization for Use of Military Force, Public Law 107-40, Sept. 14, 2001, op. cit.

[155] "Drone strikes test legal grounds for 'war on terror'", Cora Currier, *Pro Publica*, Feb. 6, 2013, accessed June 28, 2013, http://www.propublica.org/article/drone-strikes-test-legal-grounds-for-war-on-terror

[156] *Ibid.*

[157] Sen. Patrick Leahy, opening statement, "Drone Wars: The Constitutional and Counterterrorism Implications of Targeted Killing" Senate Judiciary Committee hearing, April 23, 2013, accessed June 28, 2013, (http://www.judiciary.senate.gov/pdf/04-23-13pmLeahyStatement.pdf)

[158] Groves, "Drone Strikes: The Legality of U.S. Targeting Terrorists Abroad", op. cit.

[159] Prof. Kenneth Anderson, interviewed by Ben Lerner, E-mail, Sept. 8 2013

[160] Sen. Bob Corker, "Corker: After 11 Years, Time to Consider Updating Authorization for Use of Force Against Al Qaeda to Address New and Emerging Threats", Press Release, 20 Mar. 2013, accessed Sept. 8, 2013, http://www.corker.senate.gov/public/index.cfm/news?ID=2be33f18-0fb4-4cd6-91c8-f792515aa055

[161] See Louis Fisher, "Military Operations in Libya: No War? No Hostilities?", *Presidential Studies Quarterly* 42, no. 1 (March 2012) accessed Sept. 25, 2013, http://www.loufisher.org/docs/wplibya/Libya.Fisher.PSQ.2012.pdf

[162] See *Ibid.*; see also U.S. Department of Justice, Office of Legal Counsel, "Authority to Use Military Force in Libya", 1 April 2011, accessed Sept. 25, 2013, http://www.justice.gov/olc/2011/authority-military-use-in-libya.pdf (internal citations omitted)

[163] Fisher, op. cit.

[164] See War Powers Resolution 7 Nov. 1973, accessed Sept. 25, 2013, http://avalon.law.yale.edu/20th_century/warpower.asp

[165] See *Ibid.*

[166] See *Ibid.*

[167] Department of State and Department of Defense, "United States Activities in Libya", June 15, 2011, accessed Sept. 25, 2013, http://s3.documentcloud.org/documents/204673/united-states-activities-in-libya-6-15-11.pdf

[168] *Ibid.*

[169] Fisher, op. cit.

[170] Jack Goldsmith, "Problems with the Obama Administration's War Powers Resolution Theory", *LawfareBlog.com*, June 16, 2011, accessed Sept. 25, 2013, http://www.lawfareblog.com/2011/06/problems-with-the-obama-administration%E2%80%99s-war-powers-resolution-theory-2/

[171] Harold Koh, "Libya and War Powers", Hearing before the Senate Foreign Relations Committee, June 28, 2011, accessed Sept. 25, 2013, http://www.gpo.gov/fdsys/pkg/CHRG-112shrg68241/html/CHRG-112shrg68241.htm

[172] *Ibid.*

[173] William Saletan, "Koh Is My God Pilot", *Slate*, June 30, 2011, accessed Sept. 25, 2013, http://www.slate.com/articles/health_and_science/human_nature/2011/06/koh_is_my_god_pilot.html

[174] Judson Berger, "Yemen drone strikes may revive war-powers battle between administration, Congress", *Fox News,* Aug. 12, 2013, accessed Sept. 25, 2013, http://www.foxnews.com/politics/2013/08/12/yemen-drone-strikes-could-revive-war-powers-battle-between-administration/

[175] Prof. Rosa Brooks, "Testimony Before the Senate Judiciary Subcommittee on the Constitution, Civil Rights, and Human Rights", op. cit.

[176] Interview with Prof. Amos Guiora, op. cit.

[177] Kenneth Roth, "What rules Should Govern US Drone Attacks?", *The New York Review of Books*, Apr. 4, 2013, accessed Sept. 9, 2013, http://www.nybooks.com/articles/archives/2013/apr/04/what-rules-should-govern-us-drone-attacks/?pagination=false

[178] Gabor Rona, "The pro-rule of law argument against a 'drone court'", *The Hill*, Feb. 27, 2013, accessed Sept. 9, 2013, http://thehill.com/blogs/congress-blog/judicial/285041-the-pro-rule-of-law-argument-against-a-drone-court

[179] James Robertson, "Judges shouldn't decide about drone strikes", *The Washington Post*, Feb. 15, 2013, accessed Sept. 16, 2013, http://articles.washingtonpost.com/2013-02-15/opinions/37117878_1_drone-strikes-justice-department-white-paper-federal-courts

[180] Interview with Steven Groves, July 12, 2013, op. cit.

[181] Interview with Prof. Kenneth Anderson, Aug. 9, 2013, op. cit.

[182] *Ibid.*

[183] Interview with Gabor Rona, op. cit.

[184] Interview with Steve Groves, Aug. 6, 2013, op. cit.

[185] *Ibid.*

[186] Interview with Prof. Kenneth Anderson, 9 Aug. 2013, op. cit.

[187] *Ibid.*

[188] Daniel Byman, "Why Drones Work", op. cit.

[189] Patrick B. Johnson and Anoop K. Sarbahi, "The Impact of U.S. Drone Strikes on Terrorism in Pakistan and Afghanistan", July 2013, accessed Sept. 18, 2013, http://patrickjohnston.info/materials/drones.pdf (internal citations omitted)

[190] See Adam Entous, Siobhan Gorman, and Julian Barnes, "U.S. Tightens Drone Rules", op. cit.

[191] Philip Mudd, "Fear Factor", *Foreign Policy*, May 24, 2013, accessed Sept. 18, 2013, http://www.foreignpolicy.com/articles/2013/05/24/fear_factor_signature_strikes

[192] Nic Robertson, "In Swat Valley, U.S. drone strikes radicalizing a new generation", *CNN*, Apr. 15, 2013, accessed Sept. 19, 2013 http://www.cnn.com/2013/04/14/world/asia/pakistan-swat-valley-school/index.html

[193] Audrey Kurth Cronin, "Why Drones Fail", *Foreign Affairs*, July/August 2013, accessed Sept. 19, 2013, http://www.foreignaffairs.com/articles/139454/audrey-kurth-cronin/why-drones-fail (subscription required)

[194] *Ibid.*

[195] Farea Al-Muslimi, written testimony, "Drone Wars: The Constitutional and Counterterrorism Implications of Targeted Killing" Senate Judiciary Committee hearing, April 23, 2013, accessed July 1, 2013 (http://www.judiciary.senate.gov/pdf/04-23-13pmLeahyStatement.pdf)

[196] Hassan Abbas, "How Drones Create More Terrorists", *The Atlantic*, Aug. 23, 2013, accessed Sept. 20, 2013 http://www.theatlantic.com/international/archive/2013/08/how-drones-create-more-terrorists/278743/

[197] Kurth Cronin, op. cit.

[198] Micah Zenko, interviewed by Ben Lerner, tape recording, Washington DC, July 29, 2013

[199] Kenneth Anderson, "The Case for Drones", op. cit.

[200] Prof. Daniel Byman, interviewed by Ben Lerner, tape recording, Washington DC, July 23, 2013

[201] *Ibid.*

[202] Deptula, "Drones Best Weapons We've Got For Accuracy, Control, Oversight; Critics Don't Get It", op. cit.

[203] O'Connell, "Unlawful Killing with Combat Drones", op. cit. (internal citations omitted)

[204] Philip Alston and Hina Shamsi, "A killer above the law?", *The Guardian*, Feb. 8, 2010, accessed Sept. 23, 2013, http://www.theguardian.com/commentisfree/2010/feb/08/afghanistan-drones-defence-killing

[205] Interview with Prof. Daniel Byman, op. cit.

[206] Mark Bowden, "The Killing Machines", *The Atlantic*, Aug. 14, 2013, accessed Sept. 23, 2013, http://www.theatlantic.com/magazine/archive/2013/09/the-killing-machines-how-to-think-about-drones/309434/

[207] Interview with Steven Bucci, op. cit.

[208] Kenneth Anderson, "The Case for Drones", op. cit.

[209] Interview with Steven Bucci, op. cit.

[210] Peter W. Singer, "Do Drones Undermine Democracy?", *The New York Times*, Jan. 21, 2012, accessed Sept. 23, 2013, http://www.nytimes.com/2012/01/22/opinion/sunday/do-drones-undermine-democracy.html?pagewanted=all&_r=0

[211] Interview with Micah Zenko, op. cit.

[212] Interview with Steven Bucci, op. cit.

[213] David Bell, "In Defense of Drones: A Historical Argument", *New Republic*, Jan. 27, 2012, accessed Oct. 2, 2013 http://www.newrepublic.com/article/politics/100113/obama-military-foreign-policy-technology-drones

[214] Interview with Prof. Daniel Byman, op. cit.

[215] *Ibid.*

[216] Kristin Roberts, "When the Whole World Has Drones", *National Journal*, March 22, 2013, accessed July 2,2013, http://www.nationaljournal.com/magazine/when-the-whole-world-has-drones-20130321

[217] Robert Farley, "Over the Horizon: U.S. Drone Use Sets Global Precedent", *World Politics Review*, Oct. 12, 2011, accessed Sept. 24, 2013, http://www.worldpoliticsreview.com/articles/10311/over-the-horizon-u-s-drone-use-sets-global-precedent

[218] Interview with Micah Zenko, op. cit.

[219] Interview with Prof. Daniel Byman, op. cit.

[220] Interview with Steven Bucci, op. cit.

[221] Anderson, "The Case for Drones", op. cit.

[222] Joseph Singh, "Betting Against a Drone Arms Race", *Time*, Aug. 13, 2012, accessed Sept. 24, 2013 http://nation.time.com/2012/08/13/betting-against-a-drone-arms-race/

[223] Interview with Lt. Gen. David Deptula, op. cit.

[224] Victor Davis Hanson, "Game of Drones", Hoover Institution, Mar. 28, 2013, accessed Sept. 26, 2013, http://www.hoover.org/publications/defining-ideas/article/143451

[225] Micah Zenko, "Reforming U.S. Drone Strike Policies", *Council on Foreign Relations*, Council Special Report No. 65, January 2013, accessed Sept. 26, 2013, http://www.cfr.org/wars-and-warfare/reforming-us-drone-strike-policies/p29736

[226] Interview with Micah Zenko, op. cit.

[227] Farley, op. cit.

[228] Interview with Prof. Kenneth Anderson, 9 Aug. 2013, op. cit.

[229] Micah Zenko, "Outsourcing Lethality", *Foreign Policy*, May 7, 2013, accessed Sept. 25, 2013, http://www.foreignpolicy.com/articles/2013/05/07/outsourcing_lethality

[230] Interview with Prof. Kenneth Anderson, 9 Aug. 2013, op. cit.

[231] Interview with Lt. Gen. David Deptula, USAF (Ret.), 7 Aug. 2013

[232] Interview with Steve Bucci, 25 July 2013, op. cit.

[233] Interview with Prof. Daniel Byman, op. cit.

[234] Interview with Steven Bucci, op. cit.

[235] See Faith Karimi, Steve Almasy and Lillian Leposo, "Kenya mall attack: Military says most hostages freed, death toll at 68", CNN, Sept. 23, 2013, accessed Oct. 4, 2013, http://www.cnn.com/2013/09/22/world/africa/kenya-mall-attack/index.html

[236] See Nicole Gaouette, "Al-Shabaab Terrorists in Kenya Attack Seen as U.S. Threat", Bloomberg, Oct. 4, 2013, accessed Oct. 4, 2013, http://www.bloomberg.com/news/2013-10-03/al-shabaab-group-behind-kenya-attack-seen-as-u-s-threat.html

[237] See Drew Hinshaw, "For African Generals, Drones Are The Latest Thing", *The Wall Street Journal*, Sept. 27, 2013, accessed Oct. 4, 2013, http://online.wsj.com/article/SB10001424052702304795804579100944028167308.html (subscription required)

[238] See Romesh Ratnesar, "Five Reasons Why Drones Are Here To Stay", *Businessweek*, May 23, 2013, accessed Oct. 4, 2013, http://www.businessweek.com/articles/2013-05-23/five-reasons-why-drones-are-here-to-stay#p1; see also Mark R. Jacobson, "Five myths about Obama's drone war", *Washington Post*, Feb. 8, 2013, accessed Oct. 4, 2013 http://articles.washingtonpost.com/2013-02-08/opinions/36988550_1_drone-strikes-drone-pilots-civilian-casualties

[239] See John Reed "New U.S. Drone Base Is America's Latest Move to Contain China", *Foreign Policy*, Oct. 3, 2013, accessed Oct. 4, 2013, http://killerapps.foreignpolicy.com/posts/2013/10/03/new_us_drone_base_is_americas_latest_move_to_contain_china; see also Ian M. Easton and L.C. Russell Hsiao, "The Chinese People's Liberation Army's Unmanned Aerial Vehicle Project: Organizational Capacities and Operational Capabilities", Project 2049 Institute, Mar. 11, 2013, accessed Oct. 4, 2013, http://project2049.net/documents/uav_easton_hsiao.pdf