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U.S. Lethal Drone Policy in the Execution of the Global War on Terrorism

The Case for Reforming the Tactics, Techniques, and Procedures for the Tactical Application of Lethal Drone Strikes

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May 1, 2014

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Executive Summary:

Over the past decade-and-a-half of continuous warfare by the United States in Iraq, Afghanistan, the Philippines, and Africa, lethal drone strikes have assumed a critical role in the expeditious, time-sensitive environments which U.S. military personnel and private security contactors find themselves operating in. Contentious since their inception, lethal drone strikes, as a tool of war and as a center-piece of U.S. counterinsurgency tactics, require significant policy changes in the form of increasing transparency for legislatures. Equally important, lethal drone strikes also require tactical revision in their application in order to effectively apply the methods of counter insurgency, nation-building, and relationship-development with the people and societies that these strikes affect most directly, particularly the agrarian communities in Southern Afghanistan and Northwest Pakistan. Reforming the requirements for their usage, specifically by implementing specially-trained controllers on the ground before, during, and after every attack, in order to authorize, control, and conduct post-attack assessments will be the focus of this research paper. By leveraging the force-multiplier and influence of U.S. and allied personnel during counterinsurgency operations in accordance with operational and strategic goals of the United States, I seek to show that by helping to build and reinforce relationships of local populaces directly after an attack, lethal drone strikes may shed their contentious veil and adopt a reputation similar to traditional, conventional military assets. U.S. lethal drone policy will develop greater congruency with both legislative overseers as well as with the tactical, ground-level operators improving the techniques and procedures of lethal strikes, which should inevitably improve the policies behind this weapon of warfare.

Introduction and Identification of Research Question:

The Overseas Contingency Operations (OCO) under the Obama Administration, colloquially known as the Global War on Terrorism (GWOT), is the moniker given to the international military campaign which began under the Bush Administration as a result of the terrorist attacks on the United States of America on September 11, 2001. The resulting international military strategy, comprised by strategists predominantly in the U.S. with assistance by allies including Great Britain, France, Australia, and numerous NATO and non-NATO nations, has led to conflicts from Iraq to the Philippines, and Africa to Afghanistan (Scheuer, 2). The campaign is designed to eliminate terrorist groups, with particular focus on the dismantling and destruction of al-Qaeda, the global terrorist, militant-Islamist organization founded by Osama bin Laden in Peshawar, Pakistan in the late summer of 1988, with origins traced alongside the Mujahedeen fighters of the Soviet War in Afghanistan in the mid-1980s (Wright, 32). The OCO's length and breadth of operations across the globe have included close quarters combat and raid operations, cyber warfare, and lethal, unmanned aerial vehicle (UAV; herein referred to as "drone") strikes.

As a result, many politicians, security analysts, journalists, human rights activists, international legal scholars, and civilians have raised concerns regarding the execution of lethal drone strikes. In this capstone experience, the case for the continued use of lethal drone strikes will be made, but more importantly, I will provide an analysis and recommendations for improvements in areas of defense policy pertinent to the U.S. drone program, both policy-related and in tactical application. Specifically, I will ask the question:

How can U.S. lethal drone policy be made safer and more effective at the tactical level of warfare in order to allow policy makers greater transparency in its application on the battlefield?

I will draw on evidence from the last 12 years of Operation Enduring Freedom (OEF) in Afghanistan and in other areas of the globe, as well as my own experiences and those of other service members, in order to gauge an understanding of where this policy is going, and how it remains congruent with the Executive Branch's execution of the OCO. In order to provide a

common political language, it will be imperative to summarize the National Security Strategies (NSS) of 2002, 2006, and 2010, which is an executive document created by the White House, highlighting major security concerns of the U.S. and the Executive Branch's plans to confront them. These documents will provide a baseline for an understanding of how U.S. drone policy remains a consistent tool of warfare based on the objectives of these major policy documents, which span both the George Bush and Barack Obama Administration. By capturing the extent of the OCO, it is important to evaluate component features, provide a brief background on them, and develop suggestions for policy and tactical application improvements.

United States National Security Strategies, 2002 - 2010, and the Global War on Terror:

As a basis for the proliferation of the OCO, it is necessary to analyze the NSS of 2002 and identify how the policies of subsequent NSSs – in 2006 and 2010 – have altered the execution of the OCO. The NSS of 2002 opens with a declarative statement of the goals of Western nations and their righteous undertaking of promoting the ideals of democracy and free market capitalism as tools to combat tyranny and terror. The rhetoric states: The great struggles of the twentieth century between liberty and totalitarianism ended with a decisive victory for the forces of freedom—and a single sustainable model for national success: freedom, democracy, and free enterprise (Bush, 3). A call for democracy and the adoption of a free market system are the fundamental elements of the OCO. Additionally, as noted by President Bush, “It is an enduring American principle that this duty obligates the government to anticipate and counter threats, using all elements of national power, before the threats can do grave damage. The greater the threat, the greater is the risk of inaction – and the more compelling the case for taking anticipatory action to defend ourselves, even if uncertainty remains as to the time and place of the enemy’s attack. There are few greater threats than a terrorist attack with WMDs [weapons of mass destruction]” (4). This proactive stance can be interpreted as a call for an “any means necessary” policy in order to defend the interests of the U.S. and its allies. There is a distinctive appeal to the notion that only nations that adopt an overt commitment to protecting basic human rights and guaranteeing political and economic freedoms will be able to participate in, and assure the future prosperity of an ever increasingly interconnected global society. The greatest threat, according to this document, is the proliferation of weapons of mass destruction by rogue states, terrorist organizations, and nations like Iran and Iraq, and to a greater extent state affiliated and non-state affiliated terrorist organizations, such as Hamas and al-Qaeda. The continued

prevention of nuclear, chemical, and biological weapons requires the adoption of a policy of deterrence. As President Bush notes, “Deterring potential foes and assuring friends and allies, however, is only part of a broader approach. Meeting WMD proliferation challenges also requires effective international action – and the international community is most engaged in such action when the United States leads. And the reasons for our actions will be clear, the force measured, and the cause just” (13). President Bush is suggesting that by any means, the U.S. will dominate those that seek to do it harm, but only as part of a broader approach (which makes suggestions to counter-insurgency operations and well as diplomacy, amongst other options, in the 2002 document), and not as a stand-alone strategy. U.S. drone policy, though not explicitly mentioned in the 2002 document, was not originally intended to be, nor ever became, a stand-alone strategy for counter-terrorism or counter-insurgency operations, but rather a tool of war used to buttress national and strategic interests, and continues to the present day.

In subtle contrast, the NSS of 2006 “explains how we are working to protect the American people, advance American interests, enhance global security, and expand global liberty and prosperity” (Bush, 3). It is founded on two overarching themes: the first pillar is promoting freedom, justice, and human dignity – working to end tyranny, to promote effective democracies, and the second is to extend prosperity through free and fair trade and wise development policies (4). Like the 2002 document, the NSS of 2006 expresses the expansion of freedom throughout the world via democracy as the most effective safeguard against tyranny. Further, the document continues to echo hues from 2002, where it states that “free governments are accountable to their people, govern their territory effectively, and pursue economic and political policies that benefits their citizens” (5). Fostering a continuation of the Bush Administration’s first publication, the prescription for peace and stability relies on a foundational adherence to the freedom of the individual, regardless of regime, locality, or religious and political affiliation. It reiterates the continued leadership and global presence of the U.S. in promoting freedom worldwide, posited as a truth that the U.S. must remain a global force, ready to promote effective democracies. The document suggests that as tyrannical regimes collapse around the globe and citizens collectively mobilize in order to institute a democratic, Western-style government, “...States that are respectful of human dignity, accountable to their citizens, and responsible towards their neighbors” will seek assistance, guidance, and support from the United States, while those who do not, will not (11). Further, under the section entitled *How We*

Will Advance Freedom: Principled in Goals and Pragmatic in Means, the leadership stance of the U.S. and the rhetoric as the global leader against terroristic activities, continues: “We [the United States] have a responsibility to promote human freedom. Yet freedom cannot be imposed; it must be chosen” (17). The document outlines specific functions of political, economic, and diplomatic tools which will be used in order to achieve this end state, including verbiage such as “Using foreign assistance to support the development of free and fair elections...”, “Supporting publicly democratic reformers in repressive nations...”, and “Encouraging other nations not to support oppressive regimes...” (29-30). These aims will be important as their considerations will have direct impact on how the U.S. lethal drone policy has been impacting the goals of these two NSSs, and that of the 2010 document, and what likely will result from their continued operations and non-lethal use in OCO designated areas of operation.

The 2010 NSS, the first written during President Barack Obama’s administration, renews the focus of rebuilding the U.S. economy by reducing the federal deficit, increasing investment in job creation, reducing investment on foreign oil for energy needs and developing alternative fuel sources, and taking preventive and proactive responses against natural and human-made disasters. Along with these sweeping but more tangible and specific points than prior NSSs, the document again echoes some of the same rhetoric seen in 2002 and 2006: “America’s commitment to democracy, human rights, and the rule of law are essential sources of our strength and influence in the world. They too must be cultivated by our rejection of actions like torture that are not in line with our values, by our commitment to pursue justice consistent with our Constitution, and by our steady determination to extend the promise of America to all of our citizens (14).” This powerful but subtle notion tucked into an overall unassuming paragraph within the document creates a schism between the 2002 and 2006 documents. Unlike the first two documents, which pronounced swaths of vagaries concerning America’s implementation of world-wide democracy and goals of terrorism-eradication, the 2010 document, rather than saying what the U.S. and its allies *must* do to promote freedom, is saying what America *must not* do – refraining from enhanced interrogation and torture of captured al-Qaeda and other terrorists and resets a focus on a pursuit of Constitutional legality for the execution of the OCO. The United Nations, the North Atlantic Treaty Organization (NATO), the World Bank, and the International Monetary Fund (IMF) are non-State actors which are introduced unlike in previous NSSs,

suggesting a distancing between the Bush Administration NSSs and the first under the Obama Administration.

A modernization of institutions and improved diplomatic relations with nations like Russia, China, and Pakistan, coupled with an intense, consistent focus between all three NSSs on the destruction and dismantling of al-Qaeda and other international terrorist organizations prevails in the 2010 NSS. The consistent adherence to the destruction of al-Qaeda, is important in answering the question of how the implementation of lethal drone policy by the U.S. in Afghanistan and combat zones across the globe is congruent and complementary to the objectives of the NSSs of 2002, 2006, and 2010, and, most importantly to this research paper, why continued execution of U.S. drone policy in the lethal form should continue. The lethal use of drones does, however, require tactical revision, and the recommendations to come serve as the crux of this research paper.

History and Development of U.S. Lethal Drone Policy and the Case against Lethal Strikes:

In order to provide a prudent flow of critiques against lethal drone strikes, and then provide suggestions for improving lethal drone policy, I will highlight the broad national policy first and then transition to how suggestions for changes in the operational rules will improve this policy, with particular focus on the “human dimension” of warfare, and on the relationship-building component after a lethal strike occurs. In support of the OCO, the U.S. military and intelligence community have conducted operations around the globe over the past decade from Afghanistan to Yemen and the Philippines to North Africa. The first U.S. lethal drone strike, according to de-classified Department of Defense and Department of State documents, occurred on November 5, 2002, in which one of Yemen’s most senior level al-Qaeda operatives was killed. This act was a retaliatory strike for the bombing of the U.S.S. Cole on October 12, 2000, an attack planned with the assistance of Osama bin Laden that killed 17 U.S. sailors, according to Joshua Foust in *The Strategic Effects of Lethal Drone Policy* (Foust, Strategic Effects, 2).

The U.S. conducts two types of lethal drone operations: personality strikes and signature strikes. Personality strikes target individuals whose identify is known, where signatures strikes target un-confirmed personnel, often in groups. Columbia Law School’s Human Rights Clinic’s publication from the Center for Civilians in Conflict, titled *The Civilian Impact of Drones: Unexamined Costs, Unanswered Questions*, suggests that one common notion is that U.S. drone strikes fall into two programs: the military’s Joint Special Operations Command (JSOC) overt

drone strikes in Afghanistan, and the Central Intelligence Agency's (C.I.A.) covert strikes outside of Afghanistan. U.S. government disclosures, typically from press leaks, suggest that the military, particularly JSOC, in concert with the C.I.A., are both involved in covert drone operations across the globe (11).

Political and public debate has fed on a growing catalogue of news reports and books, which themselves are based primarily on leaks by unnamed government officials; U.S. drone operations have been acknowledged by the Obama Administration in Pakistan, Yemen, and Somalia, however the military's JSOC and the various policies and protocols governing civilian protection in the strikes (Civilian, 1). In drone operations, the military and C.I.A. target individuals whose identities are both known and unknown, and they conduct targeting with varying degrees of pre-planning.

Many allied nations and non-state actors view the Obama Administration's drone policy as problematic – a clandestine policy shrouded in apparent lack of regulation and highlighted by questionable discretion. Ramifications and consequences of such activity have included reports of collateral damage and civilian death, international legal violations, law of war doctrine violation, and the compromising of the sovereignty of foreign nations' airspaces. In his piece titled *Reforming U.S. Drone Strike Policies*, Micah Zenko, a security policy analyst with the Council on Foreign Relations (CFR), notes that “despite the unprecedented escalation of its fleet and missions, the U.S. government has not provided a clear explanation of how drone strikes in non-battlefield settings are coordinated with broader foreign policy objectives, the scope of legitimate targets, and the legal framework (Zenko, 3). These concerns pose serious consequences for international and U.S. domestic security and global counter-terrorism policy. Drones are critical counter-terrorism tools in the U.S. military and arsenal of the C.I.A. and they have demonstrated serious physical and psychological destructive effects against militants, particularly along the border of Afghanistan and Pakistan (Video, Effective). However, the lack of transparency with their implementation threatens to erode and worsen U.S. foreign policy with nations and neighboring states where drone strikes occur, thus limiting the freedom of action which the U.S. military has benefited from over the past decade-plus of warfare in Iraq, Afghanistan, the Philippines and Africa.

The transparency issue goes deeper than simply granting access to media outlets. Legislators are at times at odds with the esoteric criteria related to drone use. According to

senior staff members on the Senate Foreign Relations Committee and House Foreign Affairs Committee, many of their peers have little understanding of how drone strikes are conducted within the countries for which they are responsible for exercising oversight (Foust, Misunderstand, 6). Even White House officials and members of Congress repeatedly make inaccurate statements about U.S. targeted killings and appear to be unaware of how policies have changed over the past decade (Foust, 4, Political Consequences). Individuals like Foust erroneously compartmentalize notions of governmental transparency with oversight; because legal scholars and journalists are not made conscious of the classified information which is above their security clearance. What is not considered, for the most part by critics of the U.S. drone program, is the notion of secrecy for the mitigation of exploitation by enemies in an effort to protect American interests, and ultimately, American lives. The crux of the argument of critics is that a lack of transparency, issues surrounding the notions of what classifies a target as well as a civilian, and the apparent high rate of civilian mortality associated with lethal drone usage are in need of significant overhaul, increased oversight, and additional reform.

In order to create more transparency, U.S. intelligence agencies including the Defense Intelligence Agency (D.I.A.) and C.I.A. as well as military operators utilizing this technology, need clearer guidance from security policy makers within the current, and in future, presidential administrations, as to the legalities, responsibilities, and potential consequences with use of such weapons, according to critics of the drone program. That being said, the protection of sensitive information associated with such equipment, to include its usage in sensitive operations abroad, need not be compromised, else future operations may be met with significant domestic and foreign backlash, not to mention an exposure of the tactics, techniques, and procedures the U.S. uses in its execution of drone warfare. On the other hand, in a democracy such as ours, this sort of dialogue is critically important to ensure that policy-makers and military tacticians are not abusing powers to the detriment to the U.S. and its foreign policy initiatives. Another problem associated with lack of accountability and potential illegalities of drone strikes that harm civilians and infrastructure, is the lack of framework for drone proliferation in allied state and non-state factions. As Zenko suggests, “reforming U.S. drone strike policy can do much to allay concerns internationally by ensuring that targeted killings are defensible under international legal regimes the U.S. itself helped to establish” (4). Further, the considerations for the future of drone use – not only by the U.S. but by allies and other nations and groups that will eventually

acquire them – need to be clearly documented. As Obama Administration officials have warned about the proliferation of drones, “If we want other nations to use these technologies responsibly, we must use them responsibly” (Zenko, 6).

Drones lower the threshold for the use of force and thus create a precedent that other states and non-state actors could eventually adopt for drone strikes (Economist, 29). In his piece entitled *Has Obama Tightened U.S. Drone Policy or Not?*, Peter Grier raises the question of legality: “To say a military tactic is legal, or even effective, is not to say it is wise or moral in every instance” (Grier, 2). We can reference historical warfare examples in order to understand all of these cogent points. The use of mustard gas in World War I was considered a legal element of warfare at the time, but I would argue that the lack of precedent of a weapon or tactic does not constitute legality. Rather, it raises the question of when, how, and if such elements of warfare should be used by whom and against whom. Lethal drone policy is no different; just as there are international agreements governing the rules of war, the same must apply to the use of lethal drone strikes, as they are a tool of warfare.

Drone strike data gathered from the New American Foundation, Long War Journal, and The Bureau of Investigative Journalism suggests that total deaths associated with drone strikes from 2004 to 2012 in Yemen, Somalia, and Pakistan, was 3,430, with 401 civilian casualties reported in that total, or roughly 12% (See Figure 1). Those percentages in other operational areas such as North Africa and the Philippines have ranged as low as around 4% to as high as 16%, respectively (Foust, Consequences). In support of the now famous “winning hearts and minds” component of the U.S. Department of Defense’s counter-insurgency manual, drone use needs to be tempered so as not to ostracize, alienate, or destroy relationships the U.S. deems valuable, which are integral to successful counter-insurgency and counter-terrorism campaigns. Coupled with effective combat operations, U.S. counter-insurgency policy follows this mantra, and will continue to for the foreseeable future. With this being said, it is critical to identify what limitations can and should security policy makers place on these tools of warfare when used in targeted killings. One such case concerns the death of al-Qaeda propagandist and recruiter, Anwar Al-Awlaki, killed in a U.S. drone strike in September 2011 in Yemen. Al-Awlaki, a Yemeni-born imam and U.S. citizen, provided guidance and maintained email contact with convicted Fort Hood shooter, Army Major Nadal Hassan, prior to his massacre committed on November 5, 2009 in which Hassan murdered 13 Soldiers and injured over 30 others

(Economist, 14). Zenko notes that “it [the U.S.] has a unique opportunity and responsibility to engage relevant international actors and shape development of a normative framework for acceptable use of drones (5).

What is interesting about the Al-Awlaki case is the fact that at the time of his execution, Al-Awlaki was still a U.S. citizen, but his status on international terrorist affiliation lists and his targeting by the C.I.A. appeared to have justified his death by intelligence officials and legislators. Critics have noted the problematic elements due to the overt (and covert) nature in which a U.S. citizen – albeit an al-Qaeda imam (which is a title typically associated with Sunni Muslim leaders of worship), propagandist and recruiter – was killed by his own government without due process. This is important because as the frequency of drone strikes has been increasing over time – with roughly 50 authorized under the Bush Administration and more than 350 as of spring 2013 under the Obama Administration (Roggio, 9) – there will likely be an increase in both lethal strikes and dubious, esoteric legalities associated with them, unless clear safe-guards are established. To suggest that the killing of a U.S. citizen without due process is an acceptable act clearly negates the liberties and rights associated with the U.S. Constitution, and critics, rightfully so, find concern with this. In a global campaign, as the OCO is, borders remain non-existent amongst militants and terrorist groups, and thus, evaluation of what it means to have borders, and, by extension, citizenship to a country in which one disowns and seeks to fundamentally destroy, merit further consideration outside the realm and scope of this research paper.

Critics have also suggested that, aside from the aforementioned disconnects in U.S. drone policy, one of the greatest gaps is the moral hazard associated with their employment. As suggested by Zenko, “ without any meaningful checks—imposed by domestic or international political pressure—or sustained oversight from other branches of government, U.S. drone strikes create a moral hazard because of the negligible risks from such strikes and the unprecedented disconnect between American officials and personnel and the actual effects on the ground” (12). Increased checks, robust scrutiny, and enhanced oversight by policy makers, Department of Defense, and intelligence community officials must continue in order to mitigate these hazards and retain morality when operating drones, especially in ever-evolving complex environments. It’s a far different concept of morality and responsibility when a Marine Corps infantry unit has assaulted an urban structure, cleared it, and killed enemy combatants inside, with collateral

damage injuring a nearby child who is quickly medically triaged, as opposed to a drone operator pressing a button on a joystick from a bunker on an Air Force Base in the Nevada desert. Without meaningful checks, any act of government, from drone policy to federal climate change initiatives, requires analysis and scrutiny.

The Case for Support of U.S. Lethal Drone Policy:

U.S. drone policy, which also includes espionage and reconnaissance missions, continues as an increasingly integral part of U.S. global counter-terrorism policy, due to timeliness and turnaround (ability to engage targets rapidly), reach across various areas of engagement, reducing U.S. personnel from carrying out dangerous missions on the ground, and cost. Daniel Byman, professor in the Security Studies Program in the Edmund A. Walsh School of Foreign Service at Georgetown University, and author of the CFR-published article *Why Drones Work*, addresses, amongst a host of other issues, the increased proliferation of lethal drone strikes since their implementation in 2002. Byman notes that drone strikes are “the cornerstone of U.S. counter-terrorism strategy (7),” however this notion simplifies a complex and at times convoluted and esoteric policy issue. The centerpiece of U.S. counter-insurgency strategy is the individual Marine Corps or Army infantry platoon conducting raids on the ground, or the Civil Affairs Soldiers working toward earning the respect and credibility from nationals which they are embedded with. Relationship-building, and trust creation, are the cornerstones of this strategy. Tools of warfare change and enhance the capabilities, but it is imperative for us to remain truthful to the axiom that as long as warfare is a human undertaking, humans, not technology, are the centerpieces of U.S. warfare strategy. Drones, according to Byman, have accomplished some critical components toward enhancing the counter-terrorism fight in denying sanctuaries for terrorists in Pakistan, Yemen, and in parts of Somalia, and by devastating al-Qaeda and other anti-American and anti-Western militant groups. Further, they have three integrally critical benefits to their operations: they accomplish these feats at little financial cost, at no risk to U.S. personnel on the ground, and with fewer civilian casualties than alternative methods would have caused (Byman, 2-4). This last point is critical for this research paper, though this is not to say that the other two benefits are not commendable. As a Marine Corps infantry officer, former rifle platoon commander and currently a weapons platoon commander, I take more stock in the second benefit – no risk to U.S. forces – than I do to the first, or even the third. But this third benefit appears to be the pervasive discussion point among journalists,

human-rights and international legal scholars and activists, and thus will be a focal point in the case for U.S. drone policy. Recall that tools of warfare such as drones merely complement the overall strategies of military leaders and policy-makers; the replacement of humans as the decision-makers cannot be replaced.

As noted above, critics remain skeptical of the benefits of lethal drone strikes. According to Byman, “they claim that drones kill thousands of innocent civilians, alienate allied governments, anger foreign publics, illegally target Americans, and set a dangerous precedent that irresponsible governments will abuse (2). As addressed above, some of these criticisms are understandable, with others being inconsistent or invalid. I agree with Byman in his insistence that “the United States simply cannot tolerate terrorist safe havens in remote parts of Pakistan and elsewhere, and drones offer a comparatively low-risk of targeting these areas while minimizing collateral damage” (3). Further, it eliminates the necessity of putting U.S. service members on the ground, when the mission of eliminating a target can be accomplished remotely. History is replete with new, controversial weapons of warfare as I have previously noted, and this includes the advent of chemical weapons such mustard gas in World War I used by the Germans against U.S. forces in the Argonne and Somme and the ushering in of the atomic age in 1945 when Hiroshima and Nagasaki were destroyed, effectively crushing the will of the Empire of Japan and ending World War II. Such weapons, some highly regulated and some considered illegal in their usage by the laws of war through multiple international accords and agreements, nonetheless fundamentally altered how war could be conducted. Whether critics oblige the apparentness or not, drone warfare is here to stay; it will not be un-invented, only proliferated. It will expand rather than constrict, and other countries’ capabilities will certainly catch up with the U.S., to include allies and foes. It is a weapon to be leveraged by Washington, and continued improvements in drone policy, as I have suggested above, will continue to underline clearer rules for extraterritorial killings so that dangerous regimes will have a harder time pointing to the U.S. drone program as justification for attacks against political opponents (2). Byman points out a key limitation of the drone program by suggesting that Washington must be mindful of limits of low-cost and relative ease of unmanned interventions, unless they will find the U.S. in conflicts it may otherwise have been able to avoid (3); certainly, the tempering of this tool of war requires an adherence of the national and strategic aims of the OCO. I am confident that future acts of

drone warfare will not entangle the U.S. in conflicts it may otherwise have avoided, but rather, will prevent future conflicts from arising.

Critics would further their case against drones due to its collateral damage effects which include killing civilians, disrupting infrastructure, and the apparent perception that they are utilized indiscriminately with little regard to ancillary destruction and suffering. But critics skew the fact drones are weapons of war, and no weapon, whether it be the human fist, Ka-bar knife, or 500-pound bomb can be constrained only to its intended targets 100% of the time, in every situation; the frequent mental and physical friction and confusion associated with warfare cannot eliminate this fact. They are not meant to be pleasant, but their application is necessary to achieve the end states and price of U.S. security and the cost of the enemy's insecurity. Byman summarizes my point succinctly: 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 (3). The Obama administration relies on drones for one simple reason: they work. According to data compiled by the New America Foundation, since Obama has been in the White House, U.S. drones have killed an estimated 3,300 al Qaeda, Taliban, and other jihadist operatives in Pakistan and Yemen (4). That number includes over 50 senior leaders of al Qaeda and the Taliban...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 (4). Because of the breadth of the U.S. drone program, the deterrent component of drone warfare is a challenge to quantify; we cannot easily say an individual did not choose to fight because of his fear of injury or death from this weapon platform.

On an ideal battlefield, all militants would be captured alive in order to allow the proper authorities to interrogate them and gather information to generate future operations in an effort to thwart future actions by terrorist organizations. As well, their compounds, electronic devices and other personal information would be gathered and analyzed in a raid on a militant compound or an arrest of a high-value target (HVT). These operations are conducted where and when feasibility suggests the success of the mission, yet in war zones and unstable countries these operations are exponentially more dangerous and less likely to achieve mission accomplishment, if indeed the mission is to capture and/or kill the militant(s). As Byman suggests, "in Pakistan, Yemen, and Somalia, arresting militants is highly dangerous, and even if successful, often

inefficient. In those three countries, the government exerts little or no control over remote areas, which means that it is highly dangerous to go after militants hiding there. Worse yet, in Pakistan and Yemen, the governments have, at times, cooperated with militants” (5). Additionally, the benefits of drone warfare are summarized by Byman in the following paragraph:

Although a drone strike may violate the local state’s sovereignty, it does so to a lesser degree than would put U.S. boots on the ground or conducting a large-scale air campaign. And compared with a 500-pound bomb dropped from an F-16, the grenade-like warheads carried by most drones create smaller, more precise blast zones that decrease the risk of unexpected structural damage and casualties. Even more important, drones, unlike traditional airplanes, can loiter above a target for hours, waiting for the ideal moment to strike and thus reducing the odds that civilians will be caught in the kill zone.

Is it safe to say that drones do not kill any civilians, as John Brennan, the new director of the C.I.A. suggested when he was President Obama’s top counter-terrorism advisor in 2011, suggested was the case in that year? No, this is not likely the case. But this testimony raises an interesting question: How do we define a civilian? Who constitutes a civilian can be unclear, such as when the U.S. ordered a drone strike killing Pakistani Taliban leader Baitullah Mehsud, an attack which also killed his doctor (7). This physician was not specifically targeted by the U.S., was not a direct threat to the U.S. or its allies, though he was aiding a known terrorist leader. At the same time, drone strike-related casualties pose the opportunity for a propaganda campaign for both the U.S. and militant organizations alike. Often, U.S. intelligence forces will cite the fact that most strikes occur in the dangerous and lawless Waziristan Province in Western Pakistan along the Afghanistan border, where, individuals armed with grenades and small arms traveling in the back of pickup trucks to the border to transport other arms or finances, are unlikely to be undertaking activities outside of the suspicious and militant-related kind. On the other side, there are individuals like Zeeshan-ul-hassan Usmani, who heads the Pakistan Body Count, an organization that reports on deaths associated with drone strikes, and he suggests that “neither [the United States] or Pakistan releases any detailed information about the victims...so [although the United States] likes to call everybody Taliban, I call everybody civilians” (7). This is perhaps a bit hyperbolic, but Usmani’s point remains clear. Finally, after drone strikes in Pakistan, militants typically will cordon off the area and remove their comrades’ bodies from the scene, after which they will allow reporters sympathetic to their cause to enter the area and

decide upon a body count. U.S. media often draw on faulty and over-inflated statistics related to civilian deaths (See Figure 3) from drones (7), thus resulting in fodder for both militant group propagandists abroad and critics of the lethal drone program domestically.

Again, Byman covers the angle of alternatives succinctly:

“But even the most unfavorable estimates of drone casualties reveal that the ratio of civilian to militant deaths – about one to three, according to the Bureau of Investigative Journalism – is lower than it would be for other forms of strikes. Bombings by F-16s or Tomahawk cruise missile salvos, for example, pack a much more deadly payload. In December 2009, the United States fired Tomahawks at a suspected terrorist training camp in Yemen, and over 30 people were killed in the blast, most of them women and children. At the time, the Yemeni regime refused to allow the use of drones, but had this not been the case, a drone’s real-time surveillance would probably have spotted the large number of women and children, and the attack would have been aborted. Even if the strike had gone forward for some reason, the drone’s far smaller warhead would have killed fewer innocents. Civilian deaths are tragic and pose political problems. But the data show that drones are more discriminate than other types of force (9-10).

Byman’s discussion paints an overall favorable picture for continued drone use. Indirect fire assets, such as artillery, mortars, and naval gunfire rely heavily on human calculations on the ground, often in an expedited manner in order to attack targets quickly, and may require additional adjusting volleys of fire in order to destroy a target. On the other hand, drones can relay video feeds for hours, and, if, for example, too many civilians are surrounding a militant, an instant decision made in real time can make the difference between a mass casualty situation involving civilians, or a delay in an attack where the target can potentially be isolated later on.

One of the major concerns of critics of U.S. drone policy is drone operations in which foreign, and particularly sovereign air space, is violated. This is a curious argument, as the concept of violation of a sovereign nation’s air space typically draws little attention to concerns such as satellite operations above a nation’s terrestrial borders. I would suggest that airspace of sovereign nations is violated anytime munitions from one area of operations and into their borders, such as laser-guided artillery or naval gunfire from off-shore vessels (though the U.S. military has not conducted such actions during the Afghanistan war). But these arguments are not typically addressed, and, in fact, more egregious violations of sovereign air space during the

OCO are far more high-profile and potentially damaging to international and diplomatic relations. When considering the relatively reserved criticism by both U.S. and Pakistani diplomats and legal pundits in regards to the Osama bin Laden raid, does a violation of an airspace with people on the ground, physically conducting operations draw the same critique as hovering machines far above ground level? A better question to ask would be: does it matter? For example, when such actions including the clandestine mission to kill Osama bin Laden are achieved, there tends to be little criticism of high-profile violations of a sovereign nation's air space. The U.S. raised few concerns after this raid, as did U.S. allies, because the prospective success of this target was worth the potential fallout from a failed mission. Almost three years later, there has been little significant repercussion to this operation, and part of that reasoning may not be a matter of legality, but rather a matter of politics.

According to Byman, Pakistan is reluctant to make its approval public [for lethal drone strikes within its borders]. First of all, the country's inability to fight terrorists on its own soil is a humiliation for Pakistan's politically powerful armed forces and the secretive Directorate for Inter-Services Intelligence (ISI). In addition, although drones kill some governmental enemies of Pakistan, they have also targeted pro-government groups that are hostile to the U.S., such as the Haqqani network and the Taliban, which Pakistan has supported since its birth in the early 1990s. Even more important, the Pakistani public is vehemently opposed to U.S. drone strikes (7). Yet, drone strikes prevail within Pakistani borders, and it is not due specifically to the strong-armed leveraging of U.S. diplomats; the Pakistani government requires this U.S. presence. Additional areas of concern are the facts that foreign nations, such as Pakistan, and in turn media outlets in the U.S., fail to consider the fact that drone strikes seek out and target the same militants who wreak havoc within that nation's own borders. Simultaneously, drones provide a capability that allows Washington the ability to limit its military commitments abroad, which should seek to quell the notion of critics that drone strikes will draw the U.S. into more arduous, protracted conflicts like Iraq and Afghanistan.

In her article entitled *Why Drones Fail*, Audrey Kurth Cronin suggests that there are three main goals of U.S. counter-terrorism policy which have developed in the post-9/11 world:

- 1) The strategic defeat of al-Qaeda and groups affiliated with it;
- 2) The containment of local conflicts so that they do not breed new enemies;
- 3) The preservation of the security of the American people.

Drones do not serve all of these goals, Cronin suggests. Although they can protect the American people from attacks in the short term, they are not helping to defeat al-Qaeda, and they may be creating sworn enemies out of a sea of local insurgents. It would be a mistake to embrace killer drones as the centerpiece of U.S. counter-terrorism (1). Not only is Cronin's triad an overly-simplistic surmising of strategic and national policies, it erroneously suggests that lethal drone strikes are not a critical component to U.S. counter-terrorism policy, which again, it is. As suggested earlier, lethal drone strikes are an integral component, a tool of war, and not a stand-alone strategy, as suggested by Cronin; the center of U.S. counter-terrorism policy is building relationships with partner nations in order to jointly prevent, deter, and combat terroristic organizations. Technological developments have developed throughout the history of warfare, from the development of the catapult, to artillery, to automatic weaponry, chemical weapons, and advanced communications. Technologies provide enhancements and efficiencies to the execution of warfare, but so long as warfare is a human endeavor, humans and human action and interaction will remain the centerpiece of the execution of war and, as a subset of war, so too of counter-terrorism strategy. Additionally, these three goals of Cronin's argument are merely self-serving to her argument and hold little weight in regards to the realities of warfare. The strategic defeat of al-Qaeda and groups affiliated with it is not, and never was, the aim of the drone program. Again, the strategic defeat of al-Qaeda rests within the overarching goals of the NSSs of 2002, 2006, and 2010, and not specifically tied to one tactical initiative such as drone warfare. Her second point is not an aim of drone warfare either; to believe that the application of a tool predominantly used as a surveillance asset, which also is affixed with lethal munitions, can contain violence and prevent their spread as if they were an inoculation for conflict, is misguided. Lethal drone strikes are utilized in conjunction with wide-scale operations and strategic and national priorities; because they are a tool of war does not classify them or any other technology as a tactic of war. Rather, the tactical application of such technology, used in accordance with the intent of the commanders conducting such operations, is the true execution of tactics in warfare. To suggest that drone strikes are driving U.S. counter-terrorism policy is both naïve and dangerous. There will be future technological developments in warfare, and to suggest that these tools will drive how warfare is conducted reflects a limited and narrow view of the intricacies, convolution, and friction associated with the conduct of war, and, to an

exponentially more intricate capacity, in the execution of counter-insurgency and unconventional warfare.

Defeating insurgencies and implementing enduring actions to counter terroristic activities are extremely challenging, and part of the challenge is applying new technologies in conjunction with established warfare tactics. New technologies provide enhancements and efficiencies to the execution of warfare, but as long as warfare is a human undertaking, humans – human action, inaction, and interaction, and human successes and failures – will remain the centerpiece of the execution of war. U.S. drone policy has accomplished critical objectives toward enhancing the counter-terrorism fight in denying sanctuaries for terrorists in Pakistan, Yemen, and in parts of East and North Africa, and by devastating al-Qaeda and other anti-American and anti-Western militant groups, all in concert with the aims of the National Security Strategies of 2002, 2006, and 2010. Drones are immensely cost effective, greatly reduce unnecessary or unwarranted risk to U.S. service members, and result in fewer, not more, civilian casualties than alternative indirect firing methods. U.S. drone policy will continue to develop over the coming years, and its implementation and usage across the spectrum of U.S. military and intelligence operations will likely continue to increase as well, they are a critical asset, and not the cornerstone for counter-insurgency or counter-terrorism operations, but rather a resource required to exploit the weaknesses and vulnerabilities of the enemies which these weapons of warfare were created to destroy in the first place.

Improving U.S. Lethal Drone Usage: Recommendations from a Marine Corps Infantry Officer:

Most of what the public knows about lethal drone strikes comes from reports by scholars, journalists, and former military and government officials. From the experiences I have had as a Marine Corps infantry officer over the past four years, I seek to dispel some myths and misconceived notions about lethal drone policy, as well as provide practical recommendations to improve its use (See Table 1 for a Summary of both Critiques and of current U.S. drone policy and recommendations for improving this policy). My experiences, working alongside and deploying alongside fellow U.S. Marines, U.S. Navy Special Warfare Sailors, and U.S. Army Soldiers, has brought to my attention a number of potential changes to enhance, refine, and more safely expend highly explosive ordnance used to destroy enemy personnel and equipment. As a joint fires observer (JFO), I am qualified to spot and adjust indirect fire assets such as mortars, artillery, and naval gunfire, and concurrently serve as the fire support team (FiST) leader for a

company of 150 U.S. Marine infantrymen. This FiST cell is a small group of fires coordinators who plan and execute target engagement on behalf of the commander of a Marine Corps rifle company. I am also the Weapons Platoon commander for my rifle company, which is a specialized platoon of machine gunners, assault men, and mortar men. These professional experiences will substantiate my recommendations for improving the tactical application of lethal drone strikes.

Let me first define what I mean by indirect fire assets. Indirect fire refers to aiming and firing a projectile without relying on a direct line of sight between the gun and its target. Aiming and firing with a direct fire asset implies the shooting agency can see the target (such as individuals firing rifles at the enemy across a ridgeline). Aiming is performed by calculating azimuth and elevation angles, and may include correcting aim by observing the impacts and adjusting subsequent shots. Additionally, indirect fire implies explosive projectiles being used, where the reliance on a “direct hit” is not required, due to the shrapnel, concussion, and heat from an explosion is effective in destroying a target or targets. After reviewing data recorded from 6 enlisted Marines and 2 officers who have experience with the application of indirect fire, 7 of 8 suggested that the rules of engagement for drones mirror the rules of engagement for traditional indirect fire assets, and all 8 suggested that there needs to be some form of ground controller present to direct fires with first-hand vision on the actual target. Within the Department of Defense, there are trained specialists such as joint terminal attack controllers (JTACs) or joint fires observers (JFOs), who are specialists in calling in aviation support, naval gunfire, artillery, and mortars. Rather than utilizing a second-hand view of a live camera-feed being seen by a drone operator tens, hundreds, or even thousands of miles away from the actual engagement site, these Marines suggest greater control can be achieved with these individuals in proximity to the engagement site. In order to most practically apply my recommendation for U.S. lethal drone policy, which includes applying mitigation, safety, and control measures that have been in place with traditional indirect fire support assets such as mortars, artillery, and naval gunfire for decades, let us consider the following fictitious combat engagement scenario:

A platoon of U.S. Marines is embedded with an Afghan National Army (ANA) company, jointly patrolling in the Sangin Valley of Afghanistan on the morning of June 20, 2013. After dawn breaks, the joint patrol becomes entangled in an ambush in which a Taliban company has engaged them with small arms weapon

systems, predominantly utilizing Soviet-style assault rifles. The Marine platoon is pinned down, but returns small-arms fire and maneuvers to destroy the enemy unit. However, the situation of this firefight is developing and thus, the timeline lengthens; the longer both combatants are engaged in a fight, the more likely casualties will mount. In order to end the engagement favorably for the U.S. and Afghan-led joint mission, fire support specialists, individuals known as joint fires observers, radio back five kilometers to the nearest artillery battery, alerting them of the situation in a very formal, very prescribed format. Information such as radio frequency, altitude above sea level, location, distance, and target direction from the observer are just a few elements that must be relayed in order to accurately and effectively get effective fire support on the enemy position. Additionally, the firefight is taking place next to a farming community, located only 200 meters from the engagement. Civilians quickly drop their farming equipment, hastily gather their family members and seek shelter in their homes. Simultaneously, while computing the required information, the joint fires observer maintains constant awareness of this situation, both in terms of what the allied, enemy, and civilian populations are doing. Once his radio transmission is submitted to the artillery battery, he awaits to see where his fires impact, meaning, where the artillery rounds actually impact/explode on the ground. Upon impact, he notices that the fires, or the group of artillery rounds, landed too close to the village, and thus needs to call on the radio for an adjustment, in order to protect the civilian population, and get effective suppression on the enemy force. The observer calls back in the new firing information, and the artillery battery computes the firing data. One minute later, all rounds effectively impacted on the enemy position, eliminating the threat to the coalition of U.S. Marines and ANA Soldiers. The coalition inspects their injured comrades, and luckily no one is injured severely. Next, allied leadership arranges a meeting with the elders of the village in the vicinity of the firefight. A meeting is called in which they discuss the security situation in the surrounding area, and the effects of the recent firefight. After meeting with leadership on both sides, and after enjoying tea and some local Afghan food, the coalition of soldiers and the tribal elders now feel

compelled that they should work together to improve the security situation, a communal, mutual trust developing among both parties. This meeting creates an alliance, potentially avoiding future deadly engagements.

Though highly simplified, situations like this happened daily during the height of both the Iraq and Afghanistan Wars, when combat operations were most kinetic. Today, it is a different story. Because of the drawdown in Afghanistan, an anticipated withdrawal of the majority of troops at the end of 2014, when the combat mission is planned to end, and with a Bilateral Security Agreement (BSA) and Status of Forces Agreement (SOFA) not agreed upon by Afghan President Hamid Karzai and the U.S., the ability for the human-interaction in warfare in Afghanistan will surely take a backseat with fewer boots on the ground in the future. Thus, it provides an ideal situation for lethal drone activity since there will be less of a physical presence on the ground in Afghanistan in the near future.

Now, consider the above situation again, this time without a coalition presence on the ground, and, most importantly, no joint fires observer or any trained tactician to observe and adjust the safe expelling of highly explosive munitions. Only a remote, unmanned aircraft hovering thousands of feet above the surface, seemingly indiscriminately targeting “suspected” militants. What happens when villagers and the actual people who we seek to build relationships with have no one to engage in dialogue as to why their village was targeted, who was killed, and, most importantly, how and why drone strikes affect their lifestyle? What gets lost is this human element of warfare; war is a human undertaking. Technology may enhance the means in which wars are fought, but technology cannot be substituted for a human being who conducts a post-strike analysis, or meeting with local village elders in order to quell their concerns and provide a clear picture as to why these tools of war are being used around their homes. So long as war remains a human experience, humans, not drones, will need to address, explain, and rectify any actions drones take on behalf of another country and its people. This is the reason why drones, as they stand in their lethal use today on faraway battlefields being operated by individuals (at times) on other continents, must have their rules of engagement tailored to meet the human element of warfare. A drone cannot speak with a village of tribal elders and convene a security plan. A drone cannot make last second decisions as to the morality of expelling highly explosive munitions when the enemy situation has developed and now involves innocent children in the close proximity of combatants. A drone is not a human being and although operated by one, it is

not yet being coordinated on the ground for all lethal drone strikes in order to make this weapon of war as moral and applicable in its use as possible. This technology is not going away and will not be un-invented; creating the standard now, particularly by the U.S. military and intelligence community will serve the world as well as the U.S. justly when enemies of this country obtain this technology and decide whether to adhere to specific guidance and rules of war in its application.

When discussing the concerns about lethal drone strikes, it is important to try to consider why, after all, lethal drone strikes are such a caustic political and diplomatic international issue. After much analysis, it appears the main concern with drone strikes is not the fact that they are used to kill suspected enemies of the U.S. and its allies, but that the mode of delivery – the physical firing of munitions which kill from the skies above – is the real concern. There is no difference when a 155 millimeter artillery shell impacts the earth from a Howitzer 777 located 18,100 meters away, leveling an area and creating a casualty radius of 50 meters than a remotely piloted drone firing from the skies and delivering a similar payload on a suspected militant or group of militants. I contend that critics of drone use as it stands today, correct in desiring more controls and transparency in their use (so long as that transparency does not implicate or endanger service members or U.S. interests), which is why I propose my recommendations to improve its use as a weapon of warfare, are more concerned with the mode of delivery of a munition than improvements in its application.

A lethal drone strike may require Presidential approval, yet a 22 year-old junior officer, fresh on his first deployment, can coordinate a 100-round volley of artillery and mortar fire on an enemy simply by utilizing a radio and basic geometry. So in the end, my question to the drone critics would be: with the millions of rounds of indirect fire that have been fired from World War I to present-day operations, why are we concerned with drone strikes? I have yet to hear of a complaint about the use of mortars, artillery, or naval gunfire, precisely because these are traditional assets used in warfare for decades and even centuries – Napoleon used artillery, and the Chinese, with the invention of gunpowder, have utilized mortars for even longer. Critics are concerned with the mode of delivery of munitions in drones, and are concerned about the regulation of these munitions. My recommendation is to utilize traditional control measures utilized since the beginning of traditional indirect fire assets – utilizing a trained fires observer to spot targets, and adjust munitions onto that target, while gaining positive identification of the

target first hand, not from a computer screen or hovering camera thousands of feet above the earth's surface, and safely de-conflict the potential for collateral damage. By combining traditional safety measures with traditional firing assets, drone strikes would incorporate a new technological advancement in warfare, countered by the same measures that have been in place for decades and centuries. Covert drone strikes take a particular toll, striking unannounced and without any public understanding of who is – and importantly, who is not – a target. For communities living under the constant watch of surveillance drones, there is no one to have accountable for their fears (24). If we reference my scenario from above, this is precisely the reason why the human element of warfare, and particularly the inter-personal relationship building which is the heart of the U.S.'s counter-insurgency strategy, are so critical to success in today's battlefields.

Former Secretary of Defense Leon Panetta has emphasized that drones are “one of the most precise weapons we have in our arsenal” and current Director of Central Intelligence John Brennan has touted the “exceptional proficiency, precision of the capabilities we've been able to develop” (35). Perhaps these statements hold merit, but the precision which these officials laud can be improved upon with my recommendations to require a ground-based observer, even in the most austere and challenging physical environments, particularly in the mountainous border region between Pakistan and Afghanistan. The Columbia Law School study argues that although some drones may be capable of striking “with pinpoint accuracy from an altitude of 25,000 feet...drones can still result in mistakes and civilian casualties in the intelligence and underlying analysis is incorrect” (37). Surely, no military tactician, fires expert, or intelligence analyst would disagree with this statement. However, the same can be said about any traditional firing asset; no method is perfect all of the time, particularly a tool designed with the intent of killing the enemy. So long as warfare is a human endeavor, there will always be human analysis, and thus, human error, in any sort of engagement, whether it be in a drone strike in Afghanistan or a raid on an urban complex in Iraq, and that is due to the inherent friction associated with warfare. In warfare, senses may be heightened, emotions and adrenaline may be kicked into a frenzy, and perfect information is never a reality, nor will it ever be. The friction of warfare is something that can only be overcome through grueling, realistic training that attempts to simulate the realities of combat. No simulation can, or ever will fully recreate combat, and nor will any action in war be 100% accurate all the time, so long as humans are belligerents to a conflict.

The above discussion of the human element of warfare is clearly echoed in the following excerpt: “The Air Force pushed into operation a sexy new piece of high-tech spy gear without giving much thought to the human dimension. How much data these new machines were going to produce and how many people were going to be needed to process and analyze the data...we put the cart before the horse again” (40). It continues with the claim that “surveillance and weaponized drone development has far outpaced analysis and personnel capabilities, risking mistakes in targeting and, ultimately, civilian casualties” (40). Finding the balance between integrating new technology with human oversight, to include a trained ground observer, would quell concerns noted by the outpacing of technology in warfare. As noted previously, technological outpacing of tactics in warfare is nothing new; tacticians and military strategists find ways to complement the use of technology in warfare, whether it be the machine gun or poison gases of World War I or present day drone use. Utilizing methods of the past, and in this case tactics from traditional firing assets, would adequately complement U.S. lethal drone strikes.

The perception in the media and by international legal pundits is that drones cause undue, unnecessary civilian suffering, but I sought to uncover whether this “excessive” suffering was attributed to lethal drone strikes exclusively, and as such, I have retrieved data on many different forms of indirect fire weapons, highlighting their accuracies, kill radius, and casualty radius. The question we need to ask is “Are drones more unreliable and do they cause more unnecessary damage than any other munition? And if so, why?” We also need to consider the other side of the argument, that drones are a fundamental violation of a nation’s airspace, literally the space between the ground surface of a sovereign nation which extends on an imaginary plateau all the way up the outer realms of the atmosphere. I argue that drone strikes are less likely to result in civilian casualties as a tactic of warfare and a tactic of indirect fire usage on the battlefield. Mortars and artillery, ranging in size from 60 millimeters in diameter to 155 millimeters, have generally accepted minimum safe distances of 200 to 600 meters, respectively. The level of training of the individual(s) calling in indirect fire on enemy targets, the accurate map and topographical data, and reliance on advanced communications systems and platforms allow fire-support experts to place rounds within 2-4 meters of the requested grid coordinate. Precision-guided munitions (i.e., directed to a target by a laser or a grid coordinate programmed into the tracking device) are even more accurate. As previously stated, drones can hover over a target

undetected for hours, addressing and relaying critical, real-time data to drone operators, creating a valuable, accurate picture for forces on the ground. As a reconnaissance asset, drones are a device used to gather information for a commander in support of his scheme of maneuver on the ground. Such information would also be highly desired for an individual in charge of a fire direction center (FDC), the “brain” of the indirect fire assets used from the company to division level in the U.S. Marine Corps. As a weapons platoon commander in the U.S. Marine Corps, I am responsible for the machine gun employment and assault/breaching Marines assigned to a single rifle company. I am also responsible for the employment of the mortar men of the rifle company, 13 Marines trained specifically to provide indirect fire in support of the rifle company. I am co-assigned as the fire support team (FiST) leader for my company, responsible for the coordination, direction, control, and execution of indirect firing assets in support of Marine maneuver units on the battlefield. If I were provided with exact, real-time data of the location of enemy combatants in my rifle company’s area of operation (AO) via a video-feed from a Predator or Reaper drone equipped to eliminate these assets, everything else being equal, I would utilize this asset routinely in order to place accurate fires for my Marines. Rather than calculating and triangulating the firing agencies’ locations and munitions capabilities, the time required, and the other elements of indirect fire that require de-confliction, and by eliminating munition error (which is nearly inconsequential), it may prove more suitable, based on the specifics and dependencies of the mission, to utilize a lethal drone strike.

Additionally, lack of proper and comprehensive training of drone operators is noted as a concern amongst critics of lethal drones. “Some studies suggest that high demand for drone pilots and operators may override the need for being fully trained [available public information requires at least two years of training] on civilian protection best practices, distinction, and cultural sensitivities” (42). But again, these concerns do not identify the underlying shortfall of lethal drone policy – a lack of an operator on the ground, observing the effects and protecting civilians against an undertrained or under-skilled drone operator, or correcting poor effects on target. Further, in a brief discussion of signals intelligence in the Columba Law School publication, which is intelligence gathering using electronic means such as video surveillance and radio signal interception, “in the relatively low-technology environments in which U.S. drone strikes have often occurred, signals intelligence is likely limited to intercepting and tracking phones” (38). Essentially, there is a lack of information on the ground based on the

limitations of the terrain in which drones operate. Therefore, my recommendation noted previously would further de-conflict this concern, as more-exact information can be gathered and disseminated by a trained observer on the ground, closely monitoring the tactical situation, and, more importantly, keeping keen awareness of changes to that situation prior to allowing clearance from the drone for a strike.

Ultimately, U.S. lethal drone policy must adopt substantial oversight and tactical changes in order to achieve its security and diplomatic missions in the future. By addressing the tactical recommendations suggested in this research paper, I am confident that U.S. lethal drone strikes can be refined, creating safer parameters for their use, and thus increasing oversight capabilities of U.S. policymakers, thus creating a more sharpened tactical and a practical policy solution to a budding contemporary international human rights, law of war, and rule of law discussion.

Table 1: Critiques of Current Drone Policy and Recommendations to Enhance Current Policy

		Position on Lethal Drone Usage	
		Critiques of Current U.S. Policy	Recommendations to Change U.S. Drone Policy
Evaluative Criteria	Collateral Damage	Civilian Death Toll Too High/Undermines Successes in Counter-Insurgency Operations	More Safety/Mitigation Measures Should Reduce Collateral Damage and Damage to Infrastructure
	Mitigation Measures	Currently None on the Ground in Most Situations	Require a Trained, Joint Fires Observer (JFO) on All Lethal Strikes
	Political/Diplomatic Impact	Degrades U.S. Foreign Policy/Diplomatic Initiatives	Will Allow Post-Strike Assessment/Human Interaction/Backlash De-Confliction in Areas Where Lethal Strikes Occur
	Cost	Monetarily Inexpensive; Diplomatically Costly	Less Expensive/Invasive Than Traditional “Boots-on-the Ground” Tactics
	Logistical Feasibility	Refueling/Rerouting Only Logistical Concerns	Will Require More Detailed Logistical Planning to Place a JFO on the Ground for All Strikes
	Transparency in Law of War/Rules of Engagement	Little Transparency/Call for Full Disclosure on Which Agencies and Who Authorizes Lethal Strikes	Full Disclosure Remains Unlikely/Rules of Engagement Better Managed with a JFO Present During Operations

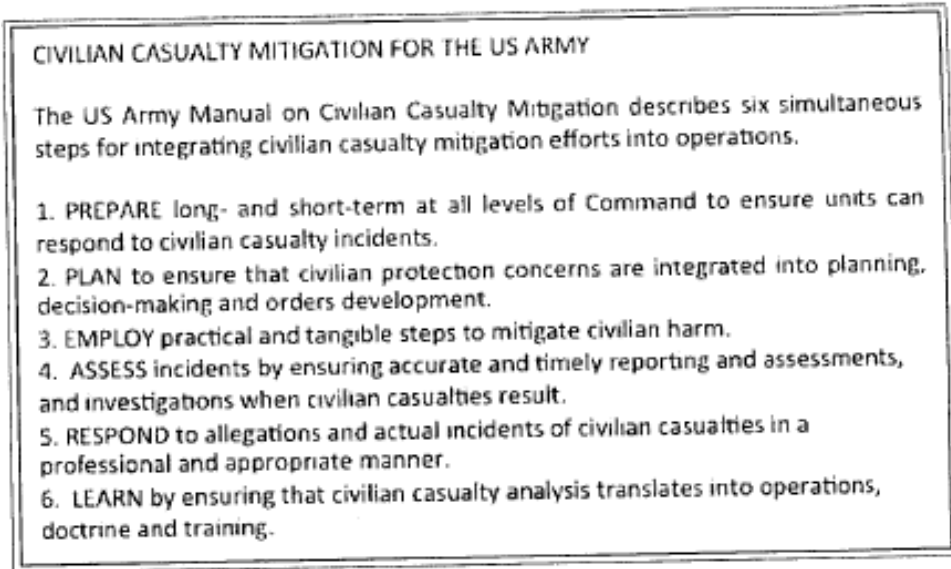
Figure 1: Estimates of U.S. Drone Strikes and Fatalities in Pakistan, 2004-2007

<i>Source/Year</i>	<i>Number of Strikes</i>	<i>Total Killed</i>	<i>Number of Civilians Killed</i>	<i>Percentage of Civilians Killed</i>
Pakistan				
NAF	340	2,572	175	7
2004-2007	10	178	101	58
2008	36	282	25	10
2009	54	536	25	6
2010	122	818	14	2
2011	72	483	6	1
2012	46	277	5	2
LWJ	325	2,592	142	5
2004	1			
2005	1			
2006	3	142	20	14
2007	5	73	0	0
2008	35	317	31	10
2009	53	506	43	9
2010	117	815	14	2
2011	64	435	30	7
2012	46	304	4	1
TBIJ	358	3,019	681	23
Yemen				
NAF	42	655	44	7
LWJ	59	386	82	21
2002	1	6	0	0
2009	2	55	41	74
2010	4	16	6	37
2011	10	81	0	0
2012	42	228	35	16
TBIJ	59	724	54	8
Somalia				
TBIJ	17	114	8	7
Est. Total*	411	3,430	401	12

Sources: New America Foundation (NAF); Long War Journal (LWJ); The Bureau of Investigative Journalism (TBIJ)

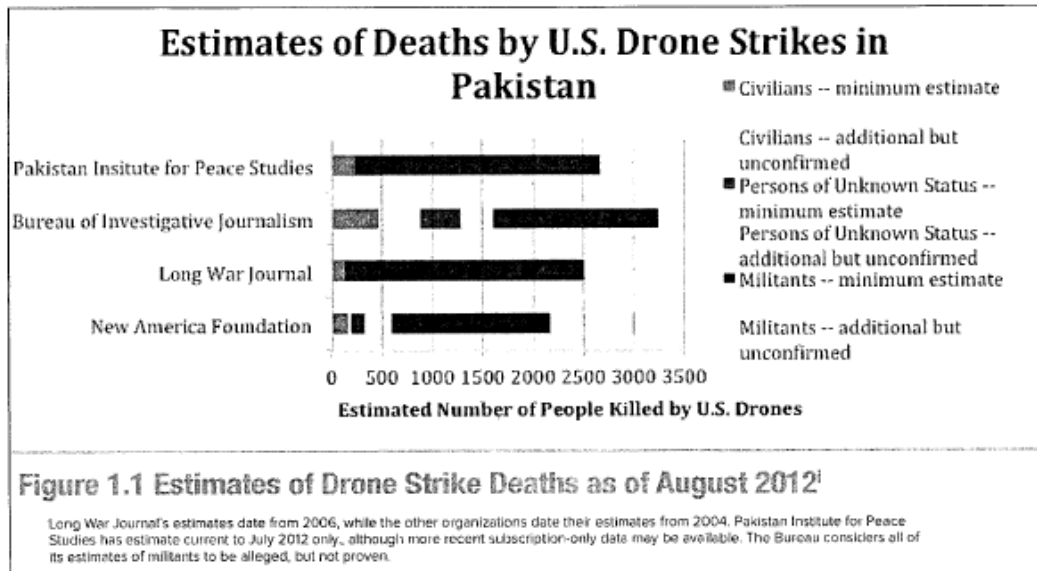
*Based on averages within the ranges provided by the organizations monitoring each country through December 2012.

Figure 2: United States Army Civilian Casualty Mitigation Guidance from Drone Strikes



- Source: Columbia Law School Human Rights Clinic, Center for Civilians in Conflict. The Civilian Impact of Drones: Unexamined Costs, Unanswered Questions. 2012 Center for Civilians in Conflict.

Figure 3: Pakistan Deaths by U.S. Drone Strikes in Pakistan, 2001-2012



The same conflicting casualty rates exist for reports on Somalia and Yemen, although it is clear that the drone strikes have affected the civilian population in these locations (from

- Source: Columbia Law School Human Rights Clinic, Center for Civilians in Conflict. The Civilian Impact of Drones: Unexamined Costs, Unanswered Questions. 2012 Center for Civilians in Conflict.

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