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*The Grotius Sanction:
Deus Ex Machina. The legal, ethical, and strategic use of drones
in transnational armed conflict and counterterrorism*

James Patrick Welch

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Dedication

“For he to-day that sheds his blood with me shall be my brother”

--Shakespeare, *Henry the V*, 1598.

To Liana, my best friend, my wife, for her infinite patience and support which kept me going through the good times and the bad.

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Chapter I

“Using the Predator is a tactic, not a strategy.”¹

—General Stanley McChrystal, *Interview with Jane Mayer*

INTRODUCTION

Research Question and Purpose Statement

Drones are legal. That is a fact. There is nothing that counters this premise and this research is destined to prove this point. But... The way they are employed is yet another matter for deliberation. The principle problem here, and this will be reiterated throughout the current research, has become one of *mistaking a technology for a strategy*. General McChrystal’s statement that “Using the Predator is a tactic, not a strategy,” strikes directly at the heart of the matter. A fact unfortunately often overlooked by those who have been lured and seduced by the promises of technology. Like any other weapons system, they must adhere to the established rules of warfare—international humanitarian law. The remotely controlled combat aerial drone does precisely this. It is an effective and precise weapons system. Drones are far more discreet and accurate than many other alternatives.

A second vital point that must be emphasized is that “unmanned” does not automatically insinuate “autonomous.” There is always at least one human “in the loop” and for the present, there are usually numerous individuals involved with flight operations and the target selection process. Hence, referring to them as “unmanned” is somewhat of a misnomer.

Finally, it is worth bearing in mind the distinction between remotely piloted vehicles (RPA's) and that of cruise missiles and similar systems. "In military terminology, vehicles are reusable, while weapons are expendable," wrote Lt. Colonel David Glade, back in July of 2000. In other words, the drone is a *weapons system* and not merely a *weapons package*. The fact that the U.S. Air Force was already considering the role of drones in a combat role prior to the events of 9/11 is telling. The fact is that many consider the development of drone warfare as a tool developed for counterterrorism and as a direct response to the attacks on the United States; in other words, an evolutionary tactical response to a specific problem.

International law does not provide a definition of terrorism and terrorism as an international crime in itself does not exist. As Ben Saul notes "Despite numerous efforts since the 1920s, the international community has failed to define or criminalize 'terrorism' in international law."² In other words, there is no specific international crime of terrorism: i.e. the use of force, either by a state or non-state actor against the citizens of another state to force them to comply with certain demands. Despite this shortcoming there have been numerous efforts on the part of the United Nations and the United Nations Security Council (UNSC) to intervene and interdict terrorist activity. There currently exist over 60 different resolutions geared toward impeding terrorism. Historically, these span the period ranging from 1970 to the present day. These various initiatives hint strongly at efforts to more clearly define the terrorism. Some of the most significant Resolutions for our purposes include 1267 (1989), 1333 (2000), 1363 (2001), 1390 (2001), 1452 (2002), 1455 (2003), 1526 (2004), 1566 (2004), 1617 (2005) 1730 (2006), 1735 (2006), 1989 (2011), 2253 (2015), 2368 (2017), and UNSCR 1373 (2001), as updated, amended, and modified.³ The related sanctions most often adopt the form of asset freezing, arms embargoes, and travel bans.

These acts are most often transnational in nature as they frequently cross several international boundaries. Additionally, they cannot be attributed to a legal personality such as a host state. There exists no specific international legal framework for dealing with this conduct, which would be considered criminal in any other context. As a result, most prosecution has occurred at the domestic level. This exclusion from prosecution is supported under the legal principle which asserts *Nullum crimen, Nulla poena sine praevia lege poenali*, or quite simply the concept that there is no penalty without the existence of previously established law.

Under current international criminal law (ICL) this principle has been defined by two separate subcategories of application according to the Rome Statute of the International Criminal Court (ICC) to wit:

Article 22 (under the heading “*Nullum Crimen sine lege*,” no crime without law), which specifically stipulates that:

1. A person shall not be criminally responsible under this Statute unless the conduct in question constitutes, at the time it takes place, a crime within the jurisdiction of the Court

Article 23, with the heading “*Nulla poena sine lege*”, or more simply no penalty without law, provides that:

“A person convicted by the Court may be punished only in accordance with this Statute.”⁴

The question then arises, what is to be done at the international level given the transnational criminal nature of these acts? There are no official bodies or judicial frameworks for dealing with this phenomenon. It is therefore *conceptually* legal...but it should perhaps also be regulated according to a legal framework at the international level. This is a central tenet of the current

research. The problems in developing a legal framework are as manifest as they are complex. Non-state actors have no international legal personality and states are reluctant to pass any such legislation, lest they too be held accountable for their own transgressions. There are a host of competing interests at stake. If the world wishes to truly deal with the phenomenon of terrorism, then legal recourse, complemented by necessary kinetic enforcement, is certainly a viable option. Such an option, however, entails honesty and integrity, something sorely lacking in the current climate of interstate relations.

This research has been designed to examine the legal, ethical, moral, technological, and strategic aspects of these precise and deadly weapons and their intimate relationship with terrorism and to seek a response to the following questions:

- 1. What are the existing moral, ethical, legal and technological boundaries which define the use of unmanned aerial vehicles (UAVs) and uninhabited aerial combat vehicles (UCAVs) and;*
- 2. how do these boundaries relate to autonomy and discretion?*
- 3. Furthermore, how do these disparate phenomena interact and what specific criteria can be formally established and articulated between them?*

As I hope to make clear later, in this work I will test four main hypotheses that are leading in my research, and which will be formulated later. An important underlying concern, however, which remains in the face of such far-reaching technological advances is: who controls what? Is machine technology forcing us, either directly or indirectly, to adopt behavior and approaches which might otherwise have been avoided? More specifically, are we resorting to armed intervention as a solution to conflict resolution, with an ever-greater propensity to rely upon this tactic as a strategy, merely since we now dispose of this deadly technology?

Drones, armed or unarmed, have become the focus of bitter controversy, from which few if any, answers have arisen. Much of this debate is founded upon arguments couched in polarized, emotional rhetoric, geared toward political expediency. It has been fueled by ambiguity of the law itself, which allows multiple, often completely inverse, interpretations. What I commonly refer to as the “*three E’s*;⁵” education, engineering (ethical, and structural), and enforcement are the three logical starting points for seeking solutions in this contentious debate.

There exist many probing questions as to the ethical justification relating to the use of this new technology. Questions such as, who can be legitimately targeted; can this technology be legitimately employed in situations outside an established zone of conflict; can unmanned aerial vehicles be used in situations other than recognized armed conflicts (such as in humanitarian interventions), or is it morally permissible to use drone attacks to target a fleeing individual as was the case with Omar Gadhafi in Libya? The answers as we shall see are not as evident or clear-cut as we might first imagine. Sometimes they can even be contradictory or context specific. In other words, while they may be acceptable in some cases they may not be so in others.

The title “The Grotius Sanction,” is not, by any means, a random coincidence and it is quite apt in the context of the current research for several reasons, which may not be immediately apparent. Hugo de Groot, Huig de Groot (Dutch), or Hugo Grotius, as he is more commonly referred to in the literature, was the ultimate law of war scholar. He is credited with having refined and developed the foundations for the current body of secular international law and jurisprudence, known as the *Law of Nations*.

That *corpus juris* related to the proper conduct of war, in his seminal opus (composed in Latin), “*De Iure Belli ac Pacis* (1625, by Hugonis Grotii),” which can be loosely translated as “On the Laws of War and Peace.” While other scholarly work on the subject existed prior to this, Grotius took the monumental step of unifying and cohesively defining the codes for the conduct of war. No longer was war a condition that was divinely inspired, rather an affair of interstate relations. If indeed, as renowned and oft-quoted strategist Claus von Clausewitz reminds us, with his immortal aphorism, *war is politics by other means*, then Grotius may rightfully be considered not only the father of international relations, but the laws of war as well. Writing on the phenomenon of suicide bombing, perpetrated during the 1980’s sponsored largely by Iran, Maxwell Taylor remarks “Indeed, we can see in probably the most explicit way in this Islamic context the use of terrorism as a form of warfare, and in this context, in parallel with Clausewitz’s notions of the relationship between war and politics are, of course, obvious.”⁶ This observation made in 1991, is even more valid in the volatile climate of international relations we currently witness today.

Von Clausewitz himself, rather unfortunately, heralded and promulgated absolute warfare and destruction of the enemy as the ultimate measure of success. His teachings, relating to victory at all costs, have been forging military leadership for generations. A conflict, however, arises with such a view—victory as the fruit of absolute war, if we assume that the purpose of war is to render justice and that the goal of said justice is peace.

Grotius, the “*miracle of Holland’s*”⁷ work, though complex and convoluted was (and indeed remains) a masterpiece of legal genius. It displayed a rich understanding of previous historical, theological, philosophical, and legal traditions, including those drawn from ancient Greek, Roman, and Hebrew writers, to the later Christian theologians, notably St. Augustine. His work

also continued to inspire future legal scholarship. Grotius entered Leiden University at the ripe age of eleven, in 1594, and thus, we come full circle, in our current investigation, to where these very same principles were originally raised. Principles, which are, no less important today than when they were initially formulated.

The second portion of the subtitle concerns the consideration of the term “sanction.” A sanction is a double-edged, semantic sword, in that it may refer to either the approbation of an action, or conversely as a punishment for illegal, or unethical actions. It is the focus of this research, and hopefully, the interest of the reader, to critically evaluate and determine the answers to many of the fundamental questions that currently plague us, concerning robotic warfare, anticipatory self-defense, targeted killing, human shielding, and collateral damage. Questions such as: “Does the use of robotic warfare automatically invite the resorting to armed intervention, as an expedient and convenient means of conflict resolution, thereby reducing the consideration of other alternative responses?” Even if this should be the case, does there exist a significant and fundamental difference between the use of unmanned aerial vehicles, as opposed to that of other types of weaponry? Does this new type of transnational armed conflict (TAC)⁸ enter a completely different category from that of conventional, nation-state warfare, or non-international armed conflict (NIAC)? If this is the case, how does it differ, and are new and more appropriate rules and laws required for its proper guidance? These questions are examined over the course of the current research.

While the answers are still being framed, these are the sort of compelling questions both the current research and the reader need to bear in mind when tackling this complex subject. The present research attempts to provide tentative answers to such probing questions and offer alternative recommendations, for consideration, wherever possible. The previous epigraph, from

General Stan McChrystal, has been echoed by many due to the inherent soundness of its logic. The opening lines of *The Assassination Complex* also reiterate this simple, yet profound logic, with the words, “Drones are a tool not a policy.”⁹ These seemingly simple assertions retain a fundamental truth which frames and underlies the answers sought within this research. Drones are a state-sponsored instrument of legitimate armed force during conflict. This raises the more general question: are there certain weapons that international law forbids to use and the answer to this, of course, is yes. The laws concerning the “*means of warfare*” restrict certain weapons systems. The use of chemical weapons or antipersonnel landmines, for instance, are illegal under international law. Such weapons systems are considered abhorrent due to their indiscriminate nature and their lack of lethal precision. The way in which a weapons system is used is referred to as the “*methods of warfare*” in legal parlance. So, the question is, should drones be placed in the same category? Drones are an evolutionary and tactical response to a changing state of international conflict. In the same way, terrorism itself and the related tactic of suicide bombing, are strategic responses to the same asymmetric imbalance and challenges faced by those on the receiving end of drone technology.¹⁰ The Battle of Thermopylae between the Spartans and Persians was numerically asymmetric. Colonial conquest was technologically asymmetric by the use of guns against people with less advanced weaponry. Are the charges of asymmetrical superiority founded and given the scope of the threat are such objections even justified? We will consider the concept and historical implications of asymmetry further in chapter VI.

Certainly, this is the opinion of Colonel Thomas X. Hammes, who developed the theory of *Fourth Generation Warfare*, or 4GW (alternatively referred to as “netwar”). According to Hammes, war is an evolutionary process that follows hard on the heels of other changes to society. These evolutionary changes indicated by Hammes—political, economic, social and

technical, I have henceforth grouped these variables under the rather appropriate acronym PEST. Hammes presciently remarked in his title *The Sling and the Stone*, “I became more convinced than ever that we were facing not just a different kind of enemy but a fundamentally different type of warfare.”¹¹ Clausewitz warned us in Book 1 chapter 7 of *On War*, that “Everything is very simple in war, but the simplest thing is difficult.”¹² Another profound observation worthy of reflection. If such is the case, then a new type of warfare would require a specifically tailored approach and either new or amended rules for guidance. Such rules must deal with the legal, ethical and strategic aspects of armed conflict.

Throughout the text I have largely opted to adopt, the more frequent, colloquial, and generic term “drone” to describe what the U.S. military currently refers to as an RPA or remotely piloted aircraft. This usage is balanced along with the former official appellations of unmanned aerial vehicles (UAVs) and uninhabited aerial combat vehicles (UCAVs). The term “Drone” has become common usage; a familiar word, even if the military looks upon it with disdain.

One might be understandably excused for believing, that with all the ink which flowed, following the devastating events of 9/11, that there might be nothing further to contribute, write about, or discuss concerning terrorism, and drone warfare. While this would certainly be a logical conclusion, it would also be an exceedingly false one. The fact is that modern terrorism, is a dark mirror, which reflects the shortcomings and past sins of geopolitics; the reprehensible and constantly morphing offspring of warfare and failed international relations. In the current complex, globalized and interconnected world, rarely, if ever, does any political event occur without at least some connection, regardless how distant, to the ubiquitous phenomenon of terrorism, and vice-versa. Historically, terrorism and geopolitical conflict have always existed. The difference between then and now is that in the globally interconnected, post-WWII, post-

Cold War era, civilization had attempted to outlaw war. The widespread, transnational and delocalized resurgence of terrorism and transnational conflict is an aberration that arrives on our doorstep like the invasion of the Mongol Hordes. Terrorism has become a phenomenon with global dimensions.

The interrelated topics of drone warfare, Just War Theory, targeted killing, and radical Islamist sponsored theoterrorism¹³ have produced a constant and exponentially expanding range of contributions to the literature. In as far as, drones and robotic technology, themselves, are concerned, a profusion of erudite perspectives and professional opinions abound, yet there is a distinct lack of consensus and much of it remains largely polemic and highly contradictory.

Yet, despite this abundance of information presented to the public, various officials, legislators, and agencies, research has also suffered from a limited basis in empirical evidence, data and solid research. Much of the support for research previously conducted, finds its origins in selective interpretations, which are based upon the formulation of unenforced or non-binding resolutions and loosely worded international agreements. The balance is often composed of hyperbole and the reconfirmation of random academic speculation. Marc Sageman writing on the psychology of terrorism, for instance, cogently remarks that the “Lack of empirical data is the plague of overt psychological research on terrorists and leaves this field wide open to speculations.”¹⁴ Yet academic consensus could and can play a vital role in the shaping of world opinion. It has in the past, on many issues, it could do so now.

The use of drones, and “Black Ops,” and special forces (SF), often in the form of covert ops, are seen by many, and perhaps rightly so, as the middle path between diplomatic approaches and outright warfare. Micah Zenko has retitled them as discreet military operations, or DMOs. While

highly efficient, their contribution to, or their reduction of, a state of armed conflict, remains ambiguous at best. The failure to measure their actual impact is directly related to the secretive nature of their implementation, combined with policies of inherent political deniability. Zenko's critical analysis was a first step in examining the advantages, disadvantages, and limitations regarding DMOs (such an analysis also applies neatly to drone strikes as a strategy versus drone strikes as a tactic).

Joseph Nye, on the other hand, might conceivably argue that the middle path is perhaps that of "smart power," instead of DMOs. Nye and Welch, however, make the pertinent observations that, "Soft power is not automatically more effective or ethical than hard power." And that "Twisting minds is not necessarily qualitatively better than twisting arms."¹⁵ Smart power incorporates a strong military force combined with effective strategic alliances. Both soft power and hard power are ineffective on their own. An ideal solution incorporates both aspects. This was the underlying philosophy which led to the development of the Just War Theory. War as an inevitable last resort.

Little, if any, empirical data has actually seen the light of day. There are several understandable and fundamental reasons for this, which we shall examine more closely over the course of this research. Briefly, here are some of the principle reasons that the study of terrorism, counterterrorism, and how it relates to strategic drone warfare, and targeted killing has failed to adopt an empirical approach:

1. The subject (terrorism), itself is highly complex and multifaceted and defies a simple empirical analysis given the numerous variables involved;

2. Since we are speaking of the moral, legal, and ethical attributes, these aspects fall largely outside the realm of empirical discourse and lie more in the field of dialectics and reasoned cognition;
3. A distinct lack of first-hand data, research, access, and eye-witness accounts have precluded researchers from developing more empirically robust models;
4. While there is much disagreement and speculation concerning the difference between the classical and modern forms of terrorism, both the typology and manifestation of modern terrorism and drone warfare, in the opinion of the current research, are composed of relatively new, misunderstood, and complex phenomena. These differences belie the often simple, yet hypothetical approaches defined, and answers supplied in terms of theoretical frameworks;
5. Any research, in this area, is often supported and funded by government and will be impugned by official sources should their results fail to coincide with the officially established discourse, thus resulting in questionable validity;
6. There exist many constraints imposed by official agencies limiting access to numbers and data which would purportedly challenge the interests of national security;
7. There are no definitive solutions to such a complex web of interlocking cause and effect relationships, which themselves remain unstable and difficult to define. We cannot provide answers unless we first know the questions;

8. Academic reviews have been constrained by political correctness; by principles of format and presentation. They rarely challenge the status quo or extend beyond well-defined parameters. Thinking “outside the box” could have a devastating career impact;
9. There has been a distinct antithetical polarization between advocates and critics, which has served to hamper and retard research efforts;
10. Much of the research to date, has been built upon a decidedly shaky foundation. A constant reconfirmation of previously stated opinions. Certain hypotheses have been adopted as sound without having been either challenged or tested. This is akin to a bad diagnosis from a doctor being repeated and endlessly confirmed;
11. There has been a failure, or oversight to apply broad-spectrum critical analysis, which considers all variables accompanied by a tendency to rely solely upon a typological model of reference, contrary to standard academic practice;
12. Interaction between government and academia has been largely selective, much of the current research being conducted is financially sponsored and supported by the government. Thus, much of the research produced has been designed, either directly or indirectly, intentionally or unintentionally, to support specific views or agendas. This tendency is evidenced in claims supporting the absolute accuracy of precision munitions. While these claims may certainly be well-founded, there also exists the distinct possibility that such findings have been developed to conform with preconceived expectations as well. Thus, in some cases, research can result in misleading and inaccurate conclusions when it is meant to satisfy certain expectations or specifically sought results. No better example of this sort of confirmation bias exists (if true) than that

of the weapons of mass destruction (WMD) findings, which served as an impetus for the March 2003, invasion of Iraq (although controversy on this topic still exists).¹⁶

As this body of the research developed, it became painfully apparent that the question of drone warfare could not be examined entirely in isolation. Another problem and a very significant one, appeared as the research was nearing its conclusion. This raised a new consideration requiring the addition of a separate hypothesis, extensive supplemental research, and profound textual modifications. I could not possibly speak about this ultimate weapon of counterterrorism without also addressing the topic of terrorism itself—particularly that of theoterrorism. The two topics are, after all, intimately connected and interdependent. This latter (theoterrorism) gave impetus to the former (armed drones) while the former depends upon terrorism for legitimation and justification.

Obviously, the purpose of this research initiative, as with any serious study, was to attempt to clearly separate fact from, enlightened and informed, opinion, while additionally offering various recommendations. Upon further investigation, it became clear that while empirical reasoning is the cornerstone to both understanding and knowledge, so too is the need for professional opinion derived of both experience and learning (experiential and cognitive balance). This fundamental relationship allows an informed introspective analysis of complex and nebulous topics—such as those of terrorism and autonomous aircraft. Thus, it would be wrong to entirely dismiss the importance of reasoned opinion and insightful dialectics as one possible path to discovering the truth.

In other words, empirical data, while they may inform us, are not imperative to developing informed perspectives and a more balanced approach to drone warfare and terrorism; but

objective honesty is. In a topic so contentious and complex, it is in fact difficult to develop definitive truths and this is indeed one of the primary reasons why empirical fact finding has taken a back seat in favor of more reflective epistemology. Researchers, to their credit, have been making the best possible analyses using the limited available material and research at hand.

Research can at times seem sterile—a source of disconnected information, based upon the ideas and opinions of others; disparate when compared with the harsh reality of war. Thus, I have also complemented the current research with my own field experience having served in the combat zones of both Iraq in 2010, and later in Afghanistan in 2012. My functions during those periods varied greatly but allowed me a closer, more personal and detailed view. This field experience also provided a much clearer understanding of the situation with actual “boots on the ground.” This unique perspective provided additional insight regarding the threats and advantages posed using remotely piloted aircraft (RPVs) which could be witnessed on a day to day basis.

What is required for a broad-spectrum analysis then, is a combination and balance of the scientific method, which employs inductive reasoning and relies upon quantitative data (when and where possible) and theory-based, deductive reasoning and its associated qualitative measures. There is also a need, of course, for some impartial normative evaluations to be carried out, though this tends to be less objective in principle. An additional explanation for academics and researchers failing to employ empirical based research, besides the previously cited fluid nature of the subject itself, is the limited access of firsthand information or verifiable eyewitness accounts.

From computers to satellites, sophisticated technological development has touched, modified, and enhanced the daily existence of mankind in all walks of life. The worlds of intelligence and defense have not been exempted from such influence. These two “offspring,” born of the same mother—national security, encompass some of the foremost pioneers, researchers, developers and first-hand users of said technology. This technology is then passed into the public domain.

Robotics and drone warfare have become subjects of extreme public interest and lively, often heated, debate. There is a good reason for this, since robotic technology touches our lives on many different levels, from concerns about our own personal privacy to national security and the way we conduct war. There is scarcely a day that passes that some new surprise, revelation or story does not appear in the media, related to this topic.¹⁷ For better or for worse technology will certainly lead the way into the future.

As shall be seen, public complacency and satisfaction with the status quo represent a clear and present danger. This complacency has been fostered by post-modernist sloth, hibernation rooted in material comfort, inward-looking isolationism, a false interpretation of multicultural diversity, moral relativism, and a failure to recognize the impending danger camouflaged by overt and oppressive political correctness. Yet despite this complacent security (often afforded by the same drones they abhor), the public has an increasing aversion to any type of armed conflict whatsoever. Janine Dill, for instance, observes that “From the point of view of the international public in the twenty-first century there are no truly legitimate targets of attack in war.”¹⁸ Such prevalent use of this technology desensitizes a public which is often thousands of miles away from the action taking place and renders the phenomenon of targeted killing as commonplace as grocery shopping. This, in turn, creates a false sense of security and

justification, based upon circular logic. In other words, “because it does not affect us, we are not threatened by it and henceforth it does not concern us.”

Robotics was once an obscure domain of interest to only engineers and the military; however, they have increasingly found their way into the public sphere. This trend promises to increase with the passage of time. If Moore’s law of geometric progression, on technological advances, holds true (and it may well have underestimated this phenomenon) we can expect phenomenal growth in this new area already showing multifaceted expansion.¹⁹ What had once been the stuff of science fiction on film and screen is now the rapidly changing reality of everyday life. Thus, we can presently observe the development of semi-autonomous drones and unparalleled breakthroughs in swarm intelligence based upon biomechanical models.

While it is true that the military originally developed this technology, the same can be said about the internet and many other forms of technological progress, from global positioning systems (GPS) to computing. Once the technology has been developed, and the expense of initial research and development (R&D) are absorbed, the commercial civilian market often steps in and adopts and adapts this new technology for its own profitable ends. One merely needs to consider the advent of the first computers compared with the technology available in such a relatively short space of time to realize the phenomenal possibilities and the rapid growth of technology in our everyday lives. This rule has not faltered in the case of robotics, and we now see the advent of an ever-increasing number of unmanned aircraft entering service domestically with state and federal agencies and law enforcement, as well as the private civilian and industrial sectors. On a less positive note, criminal and terrorist organizations have also increasingly called upon this technology for their own nefarious use.

While such technology offers many advantages, it must be borne in mind that any technology has the potential for misuse as well. The advantages they present, particularly to political elites, are well detailed by Zenko. They include the fact that they are both politically and militarily effective; that they can be easily controlled; there is limited domestic political blowback, thus the cost to politicians who must always consider public sentiment are reduced; finally, they indicate determination, to respond effectively, on behalf of the afflicted state.²⁰

I recall my first encounter with an armed drone. It was heavily laden with Hellfire missiles, as it buzzed, close by, just above my head. I was driving my vehicle close to the landing strip, and despite being on the “just side” of the conflict there was something remarkably eerie about the experience, something that spooked me and sent a shiver down my spine. This experience, and others like it, allowed me to comprehend and relate, at least marginally, to the sort of psychological trauma faced daily, by many, both guilty and innocent alike. Perhaps it was the looming threat it projected; like a robotic sword of Damocles, which was a part of its sinister menace. Nevertheless, I reminded myself that these aircraft had saved many lives, my own included and were a far better alternative to less precise and more powerful options. The use of drones, as killing machines, is a relatively new phenomenon, historically speaking. While they were employed extensively during the conflict in Bosnia for intelligence, surveillance, target acquisition, and reconnaissance collection (ISTAR), they had never been armed or equipped with weaponry. Indeed, there had been reticence on the part of both the military and the intelligence community to confront the idea of arming them.

The Predator drone, the first hunter-killer of its species, found its genitor in a model developed by expatriate Israeli, aerospace engineer, Abraham Karem. After moving to the U.S. in 1977 and setting up his own firm, Leading Systems Inc., Karem produced his first drone, rather

pessimistically named the *Albatross*.²¹ The U.S. military was giving up hope on the possibility of developing a functional unmanned aerial vehicle at the time. The Defense Advanced Research Project Agency (DARPA), the forward-looking U.S. military research organization, became interested in and acquired his design, which led to the development of the *Gnat 750*, by way of the much-maligned *Amber*, offspring of the *Albatross* and predecessor to General Atomics' first Predator model.²²

Surprisingly, one of the major concerns was the investment involved and who would pay the costs for lost predators (priced at a cool \$3 million at the time) and Hellfire missiles. This was not a trivial concern, considering that budgeting for the Intelligence Community (IC) and the CIA, had been drastically reduced since the end of the Cold War. This became a point of contention between the US Department of Defense and the CIA. Other concerns were more ethical in nature, and the Director of Central Intelligence (DCI), for the CIA, George Tenet, felt that they had absolutely no authority to conduct targeted killings. Finally, the initial warhead for the Hellfire missile had been primarily designed as a rather imprecise anti-armor piecing shell, rather than anti-personnel, and would require re-engineering.²³

The program was run largely by the U.S. military. U.S. Air Force General John Jumper began the actual program to equip armed predators shortly following his return from the Balkans conflict in 2000. It was in September of 2000, that a joint military/CIA test of unarmed predator drones was carried out in Afghanistan. The results were deemed a success, but once again, the specter of cost reared its ugly head. The CIA was particularly reticent on both economic and ethical grounds to become involved. Despite any reservations, the first armed predators began appearing in Afghanistan, ready for action, during October of 2001, just one month following the

reprehensible events of 9/11 and coincided with the onset of U.S. military involvement in Afghanistan.

Technology can be a great boon to increasing the effectiveness of the armed forces, however when it becomes the central strategic and operational driver it can limit and even reverse any advantages it may offer. It is essential to stress that technology itself is not a problem, rather the blind overreliance on its capacity and the failure to adapt said technology to the form of conflict currently being conducted is. Technology is evolutionary, not revolutionary. Thomas X. Hammes calls attention to the fact that the intelligence community failed to follow through on both valuable and rather obvious intelligence that preceded the events.²⁴ The fact that the individuals piloting the aircraft used in the attacks had taken flying lessons, yet never expressed any interest in effecting a take-off or conducting a landing with them, should have raised immediate concerns to all but the most obtuse. This was a possible expression of suicidal intent, which seems rather obvious in retrospect. “This type of behavior was demonstrated by Khalid al-Midhar and Nawaf al-Hazmi [two of the Pentagon attackers] who flunked their flying lessons because they were disinterested in the landing process, administrative actions, or flying anything other than Boeing jets, notes Joseph M. LaSorsa”²⁵ More important than the technology itself is the insight and foresight used in its application. The technology for detecting and divulging the impending attack, for instance, was in place but, for several reasons, the dots were never connected, and it was never properly implemented.

Technology is a doubled edged sword, which must be adopted wisely so that people control machines and not the reverse. While some writers, such as Ray Kurzweil, laud the future of man/machine integration with fanfare, others are more circumspect and advise far greater thought and caution. Be it the writings of Dr. Patricia Greenfield, or the insightful research

conducted by Byrne and Marx, many denounce social irresponsibility and warn of the intrusive nature and possible dangers of allowing technology a free hand.²⁶ There exists lively and often heated debate about artificial intelligence, autonomy, biological integration, bandwidth and other associated aspects of new and emerging technology.

Volumes have been dedicated to the ethical and moral aspects of technology and human-computer interface (HCI). There is an inherent ethical and moral responsibility which comes with the adoption of any new technology; a responsibility we all too frequently ignore for convenience sake.²⁷ Part of this comes from human nature and the desire for ever simpler, more expedient solutions to life's problems, without measuring the long-term consequences. However, such advances need to be measured against other, equally important, issues such as safety, the right to life, and individual privacy. In a previous doctoral dissertation, Aimee van Wynsberghe, pointed to the need for and the lack of ethical reflection in technological development by emphasizing that, "...technology assessments which aim to create guidelines and policies for the initial introduction and continued use of a technology fail to incorporate an adequate ethical analysis to guide such an introduction."²⁸ Ethics matter and they need to be incorporated at the outset not merely as an afterthought.

These ethical and moral aspects, as van Wynsberghe intuitively indicated, must be examined and implemented during the engineering phase and not after the horse has already bolted from the stall, so to speak. This research contains an evaluation of some of the risks and limits that should be considered when adopting any new technology—particularly when that technology can be lethal.

The United States was a precursor and remains the foremost user of this specific technology, however, this equation is rapidly changing, as more and more states begin to adopt or develop their own sophisticated systems. Given the importance and widespread use of such technology by the United States, much of the research in this writing, surrounding the use and proposed limitations is, therefore, focused upon U.S. military development, tactical and operational use and strategy. This use is, however, counterbalanced by examination of the existing international laws, customs, and treaties which pertain to the conduct of modern warfare. The related concepts, therefore, apply universally to all. It should be noted that the United States no longer holds an exclusive claim to armed drones and many other states and nonstate entities are in the process of developing or have already developed such capabilities. This fact is but one further reason a clarion call for oversight and regulation must be sounded. This holds true for drones as it does for other, as yet unforeseen, deadly technology, which may be developed in the future.

Today, a vast array of technological systems has become available, to both the international Intelligence Community and the military, to perform their critical missions safely and efficiently. One such platform is that of the unmanned aircraft system (UAS). It consists basically of two subcomponents with its related support groups: the UAV (unarmed) intelligence surveillance and reconnaissance (ISR) version and the weaponized, unmanned combat air vehicle, or the uninhabited combat aerial vehicle (UCAV).

The focus of this research is primarily, but not exclusively, centered upon the armed, UCAV versions; the Predator and Reaper platforms as tool to combat terrorism. The Standard intelligence surveillance, target acquisition and reconnaissance (ISTAR) version shall also be considered in context as will the so-called hybrid model which combines both functions and is

referred to as the “Multi-purpose UAV.”²⁹ This latter model combines both the functions of hunter-killer and that of an ISTAR, intelligence collection platform.

The Predator is certainly more well-known than its heavier counterpart the Reaper (also known as the Predator B or Guardian). Technological enhancements and improvements over these models have resulted in the Predator-C model the *Avenger*. The U.S. Air Force produces many *Fact Sheets*, which are particularly informative for a basic understanding of the various platforms.³⁰ The idea of arming drones with Hellfire missiles was developed immediately in the wake of 9/11. A joint venture involving the CIA and the U.S. Air Force undertook this task in two successive operations: *Night Fist* and *Positive Pilot*.³¹

There have been numerous articles, treatises, and scholarly works devoted to examining the various facets of legal, moral, ethical, and strategic issues and their individual dynamics regarding the use of UAVs andUCAVS. None of these studies to date, however, has appeared to have addressed the issue in an integrated manner. This is important because these variables are all closely interrelated in the battlespace of the 21st century. Rarely if ever, do such studies consider the relationship between terrorism and the use of armed drones, which are often seen as separate and distinct phenomena. This research represents an effort to examine both drones and their use in counterterrorism within a more integrated and comprehensive framework.

Dill, speaking on the utilitarian logic of efficiency (contrasted with the logic of sufficiency), brilliantly and eloquently captures this premise when stating that, “Technology makes it possible, doctrine frames it as instrumental, and law endorses it as also appropriate.”³² This is quite understandable since drones represent a concrete, mechanical, and empirically measurable entity, whereas, the concepts of law, ethics and morality are, by their nature and design, more open to

flexible interpretation. Dennis Patterson, adopting a legal realist perspective, cogently remarked, “The law is not a rigid body of fixed and unchanging rules but a shifting and flexible social institution, with sufficient play, sufficient give-and-take, to accommodate the balancing of competing interests within a society.”³³ With any new discovery, there is always a conflict; an unfortunate and inevitable “trade-off,” not exactly a zero-sum game, but imbalanced, nonetheless. This can conceivably, be framed as a man vs. machine, or a technology vs. humanity paradigm for instance. Unmanned vehicles (UMVs) and robotics, however, appear to hold the promise of conceivably melding the two entities (the man-machine interface or HMI).

This particular concern is echoed by Brunstetter and Braun, who also suggest that “The risk becomes that the military will bypass nonlethal alternatives, such as apprehending alleged terrorists and continued surveillance, and move straight to extrajudicial killing as the standard way of dealing with the perceived threat of terrorism.”³⁴ While this is certainly a valid concern, recent history has clearly demonstrated that it is the executive branch, rather than the military, which poses the greatest threat of relying upon a sole technology in response to prosecuting conflict resolution. The initial kill/capture policy of the previous administration, for instance, morphed into a strategically inept and shortsighted kill only policy.

Does unmanned warfare lower the bar and the consequences of armed aggression, induce and facilitate its adoption, as the silver bullet bridge³⁵ which spans diplomacy, covert operations, and warfare? This is certainly the view to which this work adheres and one point where Grégoire Chamayou advances a valid claim; a claim originally based upon price theory, and presciently presented by Benjamin Friedman who posits quite simply that, “...orthodox price theory that tells us that lowering costs increases demand.”³⁶ A simple cost-benefit analysis or return on investment (ROI). In other words, who runs the show, are people controlling machines or people

ultimately controlled by technology? The answer might appear obvious at first; however, with the ever-increasing complexity of artificial intelligence (AI) and human reliance upon state-of-the-art technology, it soon becomes clear that the borders are far less distinct than might have initially been imagined.

These are vital and important questions which need to be answered, as the world is increasingly faced with global American military, political and industrial hegemony. An unparalleled unipolar power making unilateral decisions. It is in a spirit of comprehensive and critical examination that this research additionally explores and asks: “What exactly are the existing moral, ethical, legal and strategic boundaries involved in the use of UCAVs and less directly, UAVs; if such boundaries exist, how do these boundaries relate to autonomy, discretion and sovereignty?” Furthermore, “how do these disparate phenomena interact and what specific criteria can actually be formally established and articulated between them?”

Finally, and perhaps most importantly, this research focuses upon the pivotal question to be examined: “Does the use of lethal robotic technology, substitute diplomacy, thus lowering the standards of compliance regarding international norms, laws and treaties, while at the same time increasing opportunities for engaging in armed intervention as a form of conflict resolution?” This study tends to affirm these conclusions. According to the most recent estimates available, the U.S. currently boasts a fleet of over 10,000 operational UAVs (all types combined with the majority being hand-held control models). This represents more than a 200-fold increase since the year 2002 when the U.S. military claimed ownership of only 50 drones.³⁷ Future development and even greater exploitation of this technology have been forecasted by the U.S. Department of Defense. Even greater numbers of personnel, ground control stations (GCS), and

aircraft as well as the adoption of other advances such as swarm intelligence and collaborative autonomy. As might be expected this trend will undoubtedly spread to other powers as well.

The findings of this research also tend to indicate that, any unbridled or indiscriminate use of drone warfare, rather than diminish the chances and occurrence of terrorist activity will, on the contrary, incite and contribute to the rise of even further outbreaks worldwide. In this vein, Caleb Carr, considers that terrorism (either that of non-state, or state-sponsored actors) is a bankrupt strategy, doomed to failure over the course of time. This is certainly a reasonable hypothesis if one considers the factors working against its success (particularly in the case of terrorism) such as, a lack of clearly defined goals, the reduced sustainability over time (due to the enhanced rule of law, general weariness, lack of availability for new recruits, and the inability to maintain sufficient funding and support mechanisms). Nevertheless, there remains difficulty in attempting to draw that “red line” where a state passes from the legitimate use of force and resorts to terrorism. Examples include Nazi Germany, The Turkish genocide of 1912, The rape of Nanking, and the widespread use and support of terrorism by various Iranian governments.

Carr also insists that “...warfare against civilians must never be answered in kind. For as failed a tactic as such assaults have been, reprisals similarly directed against civilians have been even more so—particularly when they have exceeded the original assault in scope.”³⁸ While his point here strikes home and his contribution is well researched and interesting historically, Carr’s theory of *progressive war* adopts a flawed approach, steeped in constructivist theory, to the war against terror. His approach is flawed in that he adopts a moral relativist stance, according to which he places the blame for the advent of terrorism at the doorstep of Western industrialized nations (colonialism, capitalism, mercantilism, greed, revenge, etc.). The interactions of these latter serving as the triggering mechanism for the terrorism of the former. While there is certainly

some degree of influence involved, as is indicated within this research, it is naïve to deduce a direct link between an ostensible cause and effect relationship. Such a perspective relates more to colonialism than present-day geopolitical relations. The second flawed constructivist assertion by the author is that there exists a standing and deliberate (and failed) model of terrorizing civilian populations as a strategic tactic. While there are numerous cases where this has indeed occurred, once again the author has made a gross and collective generalization.

Constructivist theory remains a mystery to many given its numerous nuances, permutations, and applications. In the current guise, Carr adopts that standard constructivist model whereby international relations, both past, and present, are interpreted through socially constructed phenomena. Carr considers terrorism as a form of warfare and as such should not be conducted nor complemented by what he refers to as “intelligence and criminological work.” This view stands in direct opposition to the more cohesive approach advanced in this research, which calls for cross-spectrum coordination between military, law enforcement and intelligence. The need for careful, measured deliberation and balance in the application of any targeted killing is essential. Civilian casualties create a fertile ground for future terrorist recruitment. Proportionately, each civilian killed geometrically contributes to the number of terrorist candidates available. This holds particularly true for clan and tribal-based societies where retribution (eye for an eye revenge) is an integral part of the culture.

Ben Emmerson, the “UN Special Rapporteur, on the promotion and protection of human rights and fundamental freedoms while countering terrorism,” suggested in his 2013 report, “If used in strict compliance with the principles of international humanitarian law (IHL), remotely piloted aircraft are capable of reducing the risk of civilian casualties in armed conflict by significantly improving the situational awareness of military commanders.”³⁹ It is the view of

this research, however, that such use must be carefully circumscribed and regulated. There are still no real set of definitive rules for the establishment of such boundaries yet.

There is also the question of targeting nationals to consider. The removal of the cleric, terrorist Anwar al-Awlaki, if controversial, was certainly a strategically positive, ethically justifiable, and legally sound move, as well as a boon for any of his numerous possible future victims. Though the killing of al-Awlaki has been often misrepresented as the first time a U.S. citizen had been targeted abroad, without the benefit of due process, this dubious distinction actually belongs to Kamel Derwish, who was eliminated as a threat in 2002.⁴⁰ Al-Awlaki's notoriety, due to his public image, was, no doubt, the source of this misconception. Such targeting practices, against nationals, have raised hostile recriminations, caused suspicion, and have often aroused acrimonious debate. Following his elimination, the debate centering on the legality of the targeted killing policy was rekindled, ultimately and not unsurprisingly arriving at a deadlocked polarization.

This perspective, however, raises an important philosophical conundrum. Quite simply, if individuals such as the former Anwar al-Awlaki or the Ayatollah Ruhollah Musavi Khomeini can be justifiably condemned for their exactions calling for assassination, and even legitimately eliminated such as in the case of al-Awlaki, why then should Western powers not face the same consequences for carrying out extra-judicial targeted killing? The response lies in part in the justifications behind the acts themselves. While it is eminently clear that targeted killing is seen as a distasteful, but necessary tactic of modern conflict resolution, the United States in carrying out the targeted killing of al -Awlaki based its justification upon two important principles: the right of self-defense as defined in Article 51 of the UN Charter, and that of *justa causa* or just

cause. These two causes are intimately related since self-defense is one of the three elements justifying the legitimate use of state-sponsored force.

Khomeini and al-Awlaki both called for the execution of various foreign nationals based solely upon the spurious criteria of having offended the Islamic faith.⁴¹ For these perceived infelicities they were condemned to the maximum penalty that may be levied upon another human being. Of course, under the dictates of Shari'a law, this is considered justifiable. In other words, they were to be condemned to death for blasphemy. Targeted killing in response is, therefore, not only morally and ethically justifiable it also condones the legitimate use of state-sponsored force in response to such threats. It is important to bear in mind that the right to self-defense, as enshrined under Article 51 of the UN Charter, addresses the threat to the collectivity of the state.⁴² This collectivity is, of course, composed of individuals; a threat against a group or indeed even a single individual may, therefore, be construed as a threat against all. "And to the extent that the wanton killing of innocents is an affront to basic human decency, Al Qaeda and those it inspires are a threat to us all, regardless of where we live."⁴³ Daniel Byman insightfully adds.

Some may well contend that such a position is based upon an ethnocentric perspective entailing vested national self-interests and argue for the constitutional freedom of expression. The absurd contradiction of any such assertion, however, should immediately be apparent. Given their respective positions and the large following, of individuals such as the Ayatollah or al-Awlaki, the issuance of a fatwa (pl. fatawa) is tantamount to the endorsement of homicide. In simple terms, they serve as the gun and their followers carrying out their misdeeds are the bullets. The fact remains that those who had been ostracized and eventually targeted, such as al-Awlaki, were guilty of soliciting and complicity to commit murder. They were either directly or

indirectly responsible for inciting the death of individuals who were innocent of any internationally recognized crime for which they may have been held accountable. The fatawa placed upon them had no international legal standing or jurisdiction and were not recognized according to the principles of either international criminal law nor customary international law.

Far less controversial was the elimination of Mohammed Emwazi (born Muhammad Jassim Abdulkarim Olayan al-Dhafiri) otherwise known as ISIS militant Jihadi John. A British national, repugnant by any civilized standard, he was eventually, positively identified using high-tech voice recognition software and other intelligence gathered in a multinational effort to track down and eliminate the active and imminent threat he posed. Emwazi's identity was publicly confirmed, by Prime minister David Cameron, on September 14, 2015. Any vile future atrocities Emwazi may have had planned were happily “evaporated” along with Emwazi himself, “like a greasy spot on the ground” (opinion of U.S. Operational Spokesman, Colonel Steve Warren), by a drone strike on November 12, 2015.⁴⁴ His death was eventually confirmed by ISIL in January of 2016.

This is an example where the targeting of a national who was also simultaneously a high value target (HVT) coincided in exacting justice, sparing the lives of future innocent victims, and resulting in an added if unplanned, bonus of retribution for past victims. Diane Foley—mother of reporter James Foley, one of his hapless victims, whose beheading was video recorded and made public, quixotically and bizarrely decried what she referred to as a so-called “revenge strike,” telling ABC news that “Jim would have been devastated with the whole thing. Jim was a peacemaker; he wanted to figure out why this was all happening.”⁴⁵ A position difficult for many to agree with, much less comprehend, to say the least. On the positive side, any future victims of

that ruthless killer have been spared the suffering and anguish of that suffered by her own son James Foley.

There seems to be an inherent human norm against the act of assassination, despite its precision and strategic utility. Michael Gross suggests that it may be related to the concept of “naming” or identifying an individual, perhaps this tends to make the act more intimate and personal, and hence more morally repulsive.⁴⁶ The paradox is perhaps best understood by the anonymity of numbers. A thousand victims are faceless when compared with the tragedy of a single individual.

There also exists the ever-present and troublesome tension of combatant identification and discrimination. If al-Qaeda and associates are combatants, then they should be treated as prisoners under the laws of war (combatant equality). Conversely, if not combatants, they should be prosecuted as criminals, and are thus entitled to due process and the protections afforded by international human rights law (IHRL), as opposed to international humanitarian law (IHL), also alternatively referred to as the law of armed conflict (LOAC), or more generally, the laws of war.⁴⁷ The quasi-legal status of “illegal combatants,” is just one of the reasons justification of targeted killing is so contentious an issue. This is yet another aspect of the current grey zone surrounding transnational armed conflict and fourth generation warfare. It is essential to remind the reader that transnational armed conflict is a term I have adopted throughout the current research in order to describe the sort hostilities carried out between states and non-state actors, or stateless international entities (SIEs) as I have labelled them.

Caleb Carr does not consider this disparity to be a decisive issue in the prosecution of the war against terror, however. “Thus, while arguments over what domestic law-enforcement measures

are or are not constitutional can and indeed must continue, all quibbling over whether we are or are not at war with an army of soldiers [as opposed to illegal noncombatants and other quasi-designations], and all call for our citizenry to carry on their lives ‘as usual,’ must stop.”⁴⁸ The current research certainly concurs with this particular point of view. Such recognition of a combatant status would put an end to the debate and by extension afford the rights of combatants to those captured but, by the same token, they would also be automatically held accountable under the laws of war and the international rule of law.

Another extremely problematic aspect, in the prosecution of the war on terror, is the shifting identities of targeted individuals. The important distinction established here is not that the use of UCAVs is unethical, immoral, or even illegal per se, rather a lack of strictly limited, cohesive and clearly established guidelines often sets them beyond the pale of international values and standards of normative behavior. Furthermore, until appropriate laws outlining and defining international terrorism are established and settled by a competent tribunal, it is likely that transnational armed conflict (TAC) will continue to remain in this twilight zone. Since its conduct cannot be attributed to criminal acts or acts of war it remains sandwiched in a no man’s land somewhere between the regimes of law and war.

An important, yet fundamental, aspect also included in the purpose and intent of the current treatise is to examine current literature on the subject and shed light upon the various political and diplomatic ramifications, associated blowback, second-and-third order effects and consequences, and normative limitations. “When covert killings are the rare exception, they don’t pose a fundamental challenge to the legal, moral and political framework in which we live.”⁴⁹ With this observation Rosa Brooks pertinently reminded us that should the United States wish to preserve its legitimacy and represent itself as the champion of liberal democracy on a

global scale, then it must also bear in mind that the injustice and suffering of one man or woman mean injustice and suffering for all mankind.

The study also seeks in parallel, to clarify the strategic, operational, and tactical advantages and disadvantages, surrounding the use of such deadly and sophisticated unmanned technology. Ethicist Patrick Lin et al., refer to these aspects as “risks and benefits.”⁵⁰ Given the extremely complex nature of the current research—as well as providing an opportunity for expanded exploration and controversy surrounding the subject; the ethical focus of the current work is a limited descriptive investigation of normative values related to the use of remotely piloted aircraft (RPAs) and their relationship to counterterrorism operations. The study has been designed to foster new perspectives, contribute to the existing body of knowledge, and call for further meaningful research in the field, including comparative quantitative studies which should, where possible, employ probing cost versus benefits analyses.

The current work also very briefly considers and explores various aspects and applications in the artificial intelligence realm, representing the crossroads between ethics and technology. Platforms such as, KEEL[®] Technology engines and the KEEL Dynamic Graphical Language (DGL), which adopts Colonel John Boyd’s well-known and established “observe, orient, decide, and act (OODA) loop”⁵¹ explain how they are related and apply to judgment, reasoning, discretion and autonomy in unmanned systems (UxS).

The technological research is sophisticated and highly complex, due to the inherent intricate nature of the components involved; various formulae and computations surrounding variables of intent, judgment, logic, discretion, and reasoning and how these characteristics apply to machine technology. They could and indeed have comprised entire tomes. Complex, as well, since there

are also philosophical, social, political, diplomatic, legal, strategic and humanitarian dynamics and repercussions involved. All these different variables need to be taken into consideration and balanced against one another to draw any sound and significant conclusions. These considerations outline the possibilities and boundaries of the present research effort.

It is worth noting that a significant conflict arises when attempting to correlate quantitatively and empirically measurable criteria (c.f. technology and limitations) and then cross-referencing them with more nebulous, qualitative philosophical and humanitarian constraints (laws, rhetoric, ethics and morality). A review of the current literature exposes the vast range of views and opinions, as well as the advantages, disadvantages, and limitations of this technology, as well as considerations for future development, applications, and sound doctrine. Complex technical aspects are presented for general guidance, but this is neither the very specialized domain nor the focus of the current research. Terms and concepts related to the complex technological aspects are presented in layman's terms. Those readers interested in further research and a more precise accounting of this facet are encouraged to make full use of the extensive bibliography included at the end of this work.

There is unquestionably an imperative need to develop a far-reaching and well-balanced set of international guidelines and enforceable rules, concerning the use of this new technology. This research asserts indisputably that vague and imprecise guidelines, provided in the past, related to this new realm of transnational armed conflict (TAC),⁵² need to be replaced by more flexible yet coherent diplomatic efforts for the formulation of appropriate legal precepts.

Presently, international law is comprised of two distinct sources: that of customary international law, which is binding on all States and even upon non-state actors, and that of the

law of treaties, a form of positive, or statutory law, which is binding upon those signatory states who have ratified such written instruments. We shall examine both bodies of law, as they regard the conduct of modern warfare, later in the current work.

Most authors declare that these laws, as they currently stand, are inadequate to face the changing realities of modern warfare and particularly legitimate state-sponsored anticipatory self-defense in the case of violent non-state actors during periods of transnational armed conflict (TAC). I am inclined to concur with this view; at least in their current form. These new, or revamped, laws must also consider the unique changing face and the menace of modern, asymmetric, transnational warfare, which neither respects nor recognizes geographical boundaries, traditional normative values, nor international law. Furthermore, it is likely that the legal, moral and ethical perspectives, as they pertain to increased UAV autonomy, will be required to keep pace with new and evolving technology. Such considerations should, as a consequence, be incorporated into the research and development phase and not ex-post facto when it is already too late.

This new threat, largely represented by Islamist radicalism (not to be conflated with Islam as a creed), is the same species of manifestation which reared its head with the rise of fascism during WWII and the ideological expansionism and violent repression as expressed under communist and Marxist ideology. While this has been a less than popular view there has been ample documentation in support of this position.⁵³ Religion and ideology have many common denominators, notably their quest for power and domination.

This work has been approached, primarily, as an analytical study. A central theme is to propose and recommend the need for the development of an international body dedicated to

regulating the arbitration, development, and enforcement of international robotic law. This would concern robotics and especially those intended for use in armed conflict. Should this task remain unattended, there is a great risk of dire consequences in the long run. I wish to make it clear here I am not promoting a one world government (which would pose more problems, than solutions, for those advocating it), that Janina Dill seems to favor, rather an international regulatory body with adequate restraint and enforcement powers. Again, given vested state interests and the current international “imbalance of power,” compounded with weak and subservient international governing bodies, such a structure remains unlikely, at least for the foreseeable future, if ever.⁵⁴

A series of related and important questions are posed. What if, for instance, China, Russia, North Korea, or Iran, adopt a similar tactical strategy against its foes as has the U.S. in the past? What would be the consequences of a failure to recognize international sovereign boundaries in Asia, Africa, and the Middle East, as has been the wont of the industrialized nations to date? Would we face technological and political anarchy? What if violent non-state actors such as terrorist groups like ISIS, transnational organized criminal groups and others, avail themselves of this technology in the future for more sinister and nefarious purposes? These are serious questions which need to be posed and to which solutions need to be found. Currently, the United States has fallen upon the excuse of self-defense, or the exception of host-state consent as a doctrine of armed intervention. Such an excess, however, stretches the intent underlying both Articles 2(4) and Article 51 of the U.N. Charter, while maintaining an open door to endless hostility.

As any good intelligence analyst knows, no scenario should ever be considered too far-fetched. Thus, a set of binding rules and coherent legislation concerning the use of armed drones

appears self-evident, not only strategically, but also as a moral and ethical imperative. To continue to merely maintain the status quo, regardless how convenient, is not only counterproductive it is also morally and politically bankrupt as a strategy. Failing to address the root causes underlying the issues at hand and relying solely upon a “whack-a-mole,” tactical choice in the stead of a more insightful and well-balanced grand strategy, is both counterintuitive and shortsighted. There are two important factors which currently inhibit our developing such comprehensive legislation and they are intimately related. It is quite possible that without international cooperation and goodwill, these two impediments to regulation may never actually be realistically surmounted: the question of national sovereignty and the self-interested maintenance of power by technologically advanced industrialized nations possessing said technology.

Certainly, the dissemination of knowledge, to the greatest number of interested readers, while simultaneously inducing critical thinking, is the central goal of any writer, lecturer or academician, or at least it should be. I have purposely attempted to remain a neutral observer and to avoid taking sides in this contentious debate. Researchers and scholars, however, are also human and inevitably our personal preferences tend to speak out, regardless how balanced an approach we may adopt, this is merely a part of being human.

One point, upon which I do pronounce and clearly take a stance, is the need for a unilateral examination of not only the use of this new and lethal technology, but also for a reclassification of the time-worn definition of transnational armed conflict itself. A new world, a new war, and new technology all call for new thinking in both diplomacy and legislation. These two variables: technology and insurgent warfare are not mutually exclusive. They are in fact, rather, mutually interdependent and both require profound reevaluation, both jointly and individually.

Besides the examination of these two fundamental themes, the remainder of the work is dedicated to examining several pertinent questions regarding the legal, moral, ethical and technological boundaries and limitations imposed on these lethal instruments accompanied by various recommendations. Hopefully, such an examination will contribute to a rapidly expanding body of scholarly literature and lay the foundations for even greater research. The world of robotics and artificial intelligence is evolving at unprecedented levels. These changes need to be, not only critically examined, but also shrewdly governed.

The central premise of this research is that while targeted killing rests a viable strategic option, in the fight against unbridled terrorism, to be legitimate it must remain a strictly controlled tactic based upon clearly defined, transparent and justifiable action. It cannot be indiscriminate, such as in the case of the controversial signature strikes and should be founded on the strongest possible actionable intelligence. High value targets (HVTs), representing a direct threat to national interests or innocent human life must remain the sole priority. Miller, Nakashima and DeYoung, for instance, underscored the unfortunate fact that “Signature strikes contributed to a surge in the drone campaign in 2010 when the agency carried out a record 117 strikes in Pakistan.”⁵⁵ This intensive campaign was followed by a temporary respite before escalating dramatically, once again in January 2013. My hope is that the information and research presented within these pages will help shed light upon this important topic of current debate, increase awareness and present possible avenues and opportunities for measured international conflict resolution, while at the same time making for enjoyable reading.

One final note concerning style and format is in order. I have taken the liberty of randomly adding appropriate epigraphs, to the current research. Such epigraphs may at first appear out of context and not immediately apparent, however, their placement has been carefully calculated to

contribute to the larger picture. This will help to complement and emphasize certain points while allowing the input and reflections of great thinkers. Any errors or shortcomings in this work remain my own. “*Qui audet adipiscitur,*” or as David Sterling called it: “*Who Dares Wins.*”⁵⁶

Chapter II

“Bad laws are the worst sort of tyranny.”

—Edmund Burke, *Speech at Bristol Prior to Election* (September 6, 1780).

THEORETICAL FRAMEWORK

Methodological Analysis

The method of research adopted includes extensive qualitative, cross-referential, content document analysis. Both primary and secondary research and documentary sources were consulted. This entailed drawing various conclusive arguments from these sources, and then, where appropriate, integrating them together with various theoretical paradigms. The conclusions drawn served to complement and guide my own personal conceptualized analysis and theory ofUCAVs and their relationship to counterterrorism.

A large portion of this methodology is an effort to formulate and tease out an unbiased and sound approach to establishing the normatively acceptable legal, ethical, political and technological boundaries of the use of uninhabited aerial combat vehicles, orUCAVs. Careful analysis has been conducted, employing both a textual and purposive analysis of existing legal and scholarly materials. Throughout this book an effort has been made to draw a rational and appropriate (acceptable would be a stretch) balance between normative and positivist application of both international humanitarian law (IHL) and international criminal law (ICL), concerning the justification of targeted killing and collateral damage (c.f. doctrine of double effect or DDE)

with the use of robotic aircraft. In other words, defining clearly between what the law says or is, and what it should be or say.

According to natural law thinkers this separation between the law “as it is,” and the “law as it should be” is highly artificial.⁵⁷ In this book, however, we will stick to the legal positivist convention that such a separation has some merit. There has also been an attempt to find a suitable balance between constructivist rationale, that is—the (active) state of international relations being a result of historically and socially constructed events—and that, on the other hand of (passive) consequentialism, where ethical appropriateness of given outcomes is based upon the means employed to achieve those ends. Thus, a constructivist view, which determines consequences as a result of social interaction, allows for change, whereas a consequentialist, *ex-post facto*, perspective, does not.

Such an approach represents an attempt at creating a cohesive framework by coalescing and balancing radically different perspectives drawn from among the different viewpoints and theories, which have been or are currently being advanced. I also draw from my own personal knowledge and experiences, gleaned from the combat zones of Iraq, Afghanistan, and elsewhere. These personal insights have been integrated and woven into the research, in a neutral fashion, without having breached or violated any specific protocols or non-disclosure agreements (NDAs). Such experiences help to temper and balance secondary research with firsthand experience.

Peer-reviewed scholarly journals, official documents, case law, international treaties, congressional testimony and carefully filtered and selected secondary sources have been used in support of data collection. Cutting-edge technology was examined through the analysis of

various white papers and conference proceedings, electronic correspondence and personal interviews. The research is further bolstered using graphic displays developed by examining and collating earth-based, analytics, such as Google Earth and ARC GIS. General, comparative, quantitative statistical inferences may be drawn from sites such as the *Long War Journal*, bearing in mind the existence of possible biases and margins of error. Now, let us turn to a few more relevant points relating to the development of the methodology adopted in the current research.

Methodology applied in the Grotius Sanction

Like all other scholarly work in law, both national and international, this book is based on certain premises concerning legal methodology. The sources of law in international law are well known, of course: (a) treaties between States; (b) Customary international law derived from the practice of States; (c) General principles of law recognized by civilized nations; and, as subsidiary means for the determination of rules of international law: (d) Judicial decisions and the writings of “the most highly qualified publicists.” It should, therefore, come as no surprise that all these sources, make their appearance in this dissertation. But identifying the sources is one thing, deciding how to apply these sources is another.

One of the great scholars of public international law, Martti Koskenniemi, reflected on this very issue in the *Epilogue* (2005) of his *From Apologia to Utopia: The Structure of International Legal Argument* (1989, 2005).⁵⁸ In the 2005 edition of this book, first published in 1989, he reflected on the nature of international law which he had studied for much of his life. His words may serve as a warning against overblown expectations about what international law can accomplish.

In the *Epilogue*, he reveals that “none of the standard academic treatments really captured or transmitted the simultaneous sense of rigorous formalism and substantive or political openness of argument about international law that seemed so striking to me”.⁵⁹ Although the profession had historically developed as a cosmopolitan project in the 1980s “it had become a bureaucratic language that made largely invisible the political commitment from which it had once arisen or which animated its best representatives”.⁶⁰ Koskenniemi was unhappy with the way much of the relevant literature portrayed international law. International law was generally characterized as a solid formal structure whose parts (rules, principles, institutions) had stable relations with each other. He also reflects on his past as a civil servant who was confronted with questions about international law by his superiors in the government organization. He said:

*“Had I responded to my superiors at the Ministry when they wished to hear what the law was by telling them that this was a stupid question and instead given them my view of where the Finnish interests lay, or what type of State behavior was desirable, they would have been both baffled and disappointed, and would certainly not have consulted me again.”*⁶¹

Koskenniemi’s concerns, as expressed in *From Apologia to Utopia*, are relevant for the world of international law. They also are in harmony with my own experiences that there is less consensus about the central questions of the discipline than many think, or would like to believe. And if there is consensus, this is on weaker grounds than might be expected. This, clearly, necessitates rethinking the methodology adopted in writing about international law. How to deal with the traditional sources mentioned above? What perspectives to adopt?

In *The Grotius Sanction*, I will try account for Koskenniemi's criticism by following a legal methodology developed by the late Ronald Dworkin (1931-2013) and thereby other authors in the hermeneutic tradition. Allow me to briefly elaborate on this.

Dworkin's early work was on the importance of *principles* for law and, accordingly, legal theory.⁶² Law is not only a system of rules, as H.L.A. Hart (1907-1992) had chosen as the focus of his attention in *The Concept of Law* (1961),⁶³ but also a system of principles.⁶⁴ The most concise summary of his work might well be that he advocates *arguing about principles*. Although Dworkin successfully defended his approach against the legal positivistic theories of his time, one of the frustrations of his later life was that there was so little attention for arguing about, and on the basis of, principles. Especially in American political culture at the beginning of the twentieth millennium. Principles do matter, and this is a core theme throughout the current research.

In *Is Democracy possible here?* (2006) he cogently chastises American political culture for being totally polarized between the red and the blue, without any attempt being made to argue about the issues "from deeper principles of personal and political morality that we can all respect".⁶⁵ We are no longer partners in self-government, he writes, "our politics are rather a form of war".⁶⁶ He refers to the matter of same sex-marriage as it had been decided by Chief Justice Margaret Marshall of the Massachusetts Supreme Court. So divided were people on the issue, that people did not notice that the judgment of the court was based on "widely shared principles" inherent in Massachusetts's constitution.⁶⁷

As Dworkin makes clear in his "The Forum Principle" (1981) there is a common distinction between "interpretative" and "noninterpretive" theories of judicial adjudication and

interpretation.⁶⁸ The interpretive theories pretend to base their interpretation on the text itself (e.g. the American Constitution) while the noninterpretative approach would be based on some sort of source other than the text, for instance, shared morality, theories of justice, or some conception of genuine democracy.⁶⁹ Dworkin rejects that theory as too simple and even misleading. He sees the law as deeply and thoroughly political. “Lawyers and judges cannot avoid politics in the broad sense of political theory”, he writes in an article published one year later entitled, “Law as Interpretation” (1982).⁷⁰

As I said, Dworkin also takes a stance in the classical debate between legal positivism and natural law doctrine, which also plays an important role in *The Grotius Sanction*. Legal positivists believe that propositions of law are wholly *descriptive*: they are in fact “pieces of history”.⁷¹ That leads to a methodology that assumes that interpretation of a particular document means that we have to discover what its authors (legislators, delegates to the conventional convention) meant to say in using the words they did.⁷² Dworkin emphasizes the flaws in this simplistic view on the essence of both legal scholarship and legal interpretation. On many issues, the author had no intention. That brings Dworkin to develop his own theory of interpretation which significantly deviates from the legal positivistic approach that finds widespread acceptance among lawyers and legal scholars. This raises an important point worth bearing in mind. And that is a viewpoint is not necessarily wrong, merely because it is different. For his own theory, Dworkin seeks guidance from literary and other forms of artistic interpretation.⁷³ His own theory he presents as “the aesthetic hypothesis” meaning that an interpretation of a piece of literature “attempts to show which way of reading (or speaking or directing or acting) the text reveals itself as the best work of art”.⁷⁴ Interpretation of a text, according to Dworkin’s methodology, “attempts to show *it* as the best work of art *it* can be (...)”.⁷⁵

According to the approach adopted by Dworkin, there is no longer a flat distinction between interpretation as discovering the real meaning of a work of art and criticism – two things some scholars try to keep separate as much as they can.

Dworkin also attempts to keep theories that stress the importance of the authors intentions center stage at bay. Of course, no plausible theory of interpretation holds that the intention of the author is always irrelevant. But one should not overemphasize the importance of intention, as is so often the case in legal scholarship. The license to interpret is, of course, also a licence to misinterpret. Significantly, he illustrates his theory of interpretation by an analysis and commentary of John Fowles's *The French Lieutenant's Woman*.⁷⁶

A closer look at Dworkin's theory of interpretation: "Fit" and "value"

When taking note of the main features of Dworkin's theory of legal interpretation one objection easily comes to mind, the objection of subjectivity. Does not comparing law with literature make law too "subjective"? Dworkin denies this. He stresses that any plausible interpretation of legal practice must satisfy a test. That test is that the interpretation must "fit" the practice it pretends to interpret and also that it must illustrate its point or value. And, needless to say, "point" or "value" cannot mean *artistic* point or value, of course, but something else. What? Law is a political enterprise and therefore the value, or the point, interpretation is directed at, is political. It lies in:

"...coordinating the social and individual effort, or resolving social and individual disputes, or securing justice between citizens and between them and their government, or some combination of these."⁷⁷

Dworkin has developed his theory of interpretation in many essays, books, and lectures and he makes more or less the same point again and again. There are minor differences in the way he brings forth his argument, though, and some of his renditions are more convincing than others. A particularly successful version of his defense of the law as interpretation he offered in his article “‘Natural’ Law Revisited” (1982) where he contrasts his own approach to interpretation with the “conventionalist” theory of others.⁷⁸ Dworkin begins with a theory he calls “naturalism”.

Naturalism is a theory based on natural law doctrine, although the word “natural” is placed between brackets in the title of his article. So, if we want to call this the “natural law doctrine”, this is because it hints at some similarities but also differences with the classical doctrine attributed with title. The broad concept that Dworkin espouses, from natural law doctrine, is this. *“Natural law insists that what the law is depends in some way in what the law should be.”*⁷⁹

Dworkin claims that no one wants to be called a natural lawyer,⁸⁰ but he thinks this general idea of natural law doctrine (he calls it a “crude description of natural law”) is not only defensible, but it is also a very welcome and necessary idea to understand both legal practice and sound legal theory.

The implications of naturalism for the theory of interpretation are far-reaching. Naturalist judges think that they have to decide hard cases by interpreting the political structure of their community by trying to find the most appropriate justification they can find in principles of political morality for the structure as a whole.⁸¹ Judges have to give a judgment about that past. But this judgment about past law pends on their judgment concerning the most ideal possible justification of that law. This brings them within the ambit of political morality.

As I mentioned previously, Dworkin claims that the law is very much like literature. Dworkin illustrates his analogy between law and literature with his idea of the chain novel: a group of novelists deciding to write a book together. Every participant in the writing process has the responsibility of interpreting what has gone before except the first one. Every subsequent participant has to interpret what his predecessors have done, i.e. develop the novel further into the direction of a good novel, the best the novel it can be. The “chain of the law” is no different. The best interpretation of past judicial decisions, or *stare decisis*, is an interpretation that “shows these in the best light”.⁸² And “best” in this context does not mean, of course, best *aesthetically*, rather morally and politically. The interpretation must come closest to the ideals of a just legal system. There are constraints, to be sure. The judge cannot *invent* a better past for instance. An interpretation has to fit the data it interprets. But having said that, there is an orientation of the law in its best light. It is clear from what has been said that interpretation is not a mechanical process.

Naturalism, as Dworkin’s legal methodology, is contrasted with what he calls “conventionalism”. Conventionalism pretends to be the more “democratic” theory. Conventionalism is based on two pillars. First, it wants to identify the persons or institutions which are authorized to make law by the social conventions of their community. Second, a conventionalist proceeds to check the record of history to see whether any such persons or institutions “have laid down a rule whose language unambiguously covers the case at hand”.⁸³ If such a rule exists it has to be applied. If not, they have to create the best rule for the future. This removes the inherent flexibility which is a defining feature of both law and justice.

Conventionalism is based on the presupposition that people only have rights if these have been attributed to them by institutions that have legislative power, but naturalism also assigns

rights to people that no official institution has ever sanctioned before.⁸⁴ Another point on which naturalism and conventionalism differ is with regard to the concept “political order”. According to naturalism, a community’s political order is provided by the principles assumed in the best interpretation of its political structures, practices, and decisions.⁸⁵

Naturalism is also based on a separation between the responsibility of the judge and the responsibility of the legislature. The legislature is aimed at the ideal of our political order in some sort of external sense. The aim of the legislature is to seek the ideal of a perfectly just and effective system. But there is also an internal ideal, to wit the challenge of making the standards that govern our lives articulate, coherent and effective.⁸⁶

The relevance of all this for The Grotius Sanction

Dworkin’s theory of interpretation strikes me as relevant to the methodology of international law. I started with Koskenniemi’s autobiographical reflection responding to his superiors at the Finnish Ministry when they wanted to hear “what the law was”. Koskenniemi, a civil servant by that time, couldn’t tell them and he wanted to answer them that he could tell them “where the Finnish interests lay”. Or “what type of State behavior was desirable”.⁸⁷ Needless to say, this did not satisfy his superiors. But it would not satisfy Ronald Dworkin either.

The law is not, at least *not only*, about “interests”. Neither is the law exclusively about what is “desirable”. The Empire of the Law⁸⁸ is about principles, moral principles, political principles, and in according with the natural law doctrine (what Dworkin calls “naturalism”) these principles are relevant for the law. This is especially the case with international law, I am inclined to think. In the traditional sources of international law, I have referred to the “general principles of law recognized by civilized nations”. Dworkin would have had no qualms in

stressing the importance of these and I side with him. Especially with relatively new techniques as those I am writing about in *The Grotius Sanction*, principles, and arguing about principles, is of supreme importance. Dworkin showed us with his introduction of the dimensions of “fit” and “purpose” that an orientation on a “moral reading”⁸⁹ of treaties and other foundational texts of international law does not have to bring us into the troubled waters of relativism and skepticism.

Theoretical Foundations

Theoretically, national security lacks the sort of cohesive and explicative framework which denotes other related social science disciplines, making it difficult, if not impossible, to attribute a specific theoretical framework to the current research. The closest possible and most applicable theories are those pertaining to the laws of war, such as the Just War Theory and the global conflict paradigm. The constantly changing and nebulous character of asymmetric, non-state, actor-oriented conflict, however, tends to render the Just War Theory somewhat less applicable—while many researchers consider the global conflict paradigm as no longer adequate either.

The truth of the matter is that what the world currently faces has no precedent. It is an entirely new model of armed conflict and the old rules, such as those of the Just War Theory, simply no longer apply. The classic Just War Theory is just that; classic. There is a need for a new and more comprehensive approach which encompasses and considers the unique and deadly nature of fourth generation transnational armed conflict. All the best intentions of the world will be in vain should we ignore this harsh reality. While the basic tenets and guidelines initially formulated need not be jettisoned, they must be nuanced to take account of this newer, more deadly form of armed conflict. Wars of the past, violent as they may have been, largely

respected, or at least recognized certain parameters of conduct. The current situation is one where the barbaric exception to the rule is no longer an exception, rather it has become the rule itself.

There are indeed portions of the “Collective Security” approach, first developed in 1914, which can be applied particularly regarding either UN-Charter Article 51, and the right to state self-defense, or alternatively under Chapter VII, Article 42 of the UN-Charter, for establishing collective security, such as was exercised during the first Gulf War. However, such a theory is limited in scope regarding a conclusive and specific application concerning drone warfare and other aspects involved in this research such as, targeted killing, state sovereignty, and noncombatant immunity.

Elements from other structurally applicable philosophical frameworks have been considered and either discarded or adopted, incorporated, enhanced. These perspectives, derived from a variety of sources: utilitarian theory, liberalism, liberal multilateralism, liberal multiculturalism, the ethics of duty theory (otherwise referred to as deontology), complexity theory, chaos theory, game theory (Neumann and Morgenstern), isolationism, classical realism, neorealism, democratic realism, moral democratic realism, constructivism, communitarianism, democratic globalism, revolution in military affairs theory (RMA), postcolonialism theory, and identity politics (to a lesser extent but relevant nonetheless for comprehending the historical “denouement”), were evaluated regarding the development of theoterrorism as a transnational phenomenon.

It was found that elements from revolution in military affairs theory (RMA) were marginally applicable regarding the development and implementation of new military technologies. Thomas

X. Hammes, importantly reminds us that revolution in military affairs is but the evolutionary end-product of or response to, strategic, operational and tactical problems faced by the military. Sometimes the changes are minor, and at other times drastic and revolutionary in character. Such is the case of the advent of the unmanned aerial vehicle. Revolution in military affairs, when correctly interpreted, therefore, simply represents practical solutions to tactical dilemmas.

Complexity theory is particularly apt in this instance, as it relates to organizational changes and adaptations required, to better understand and come to terms with transnational armed conflict (TAC). Current use and foreign development were influenced by game theory, while future technological development and nanotechnology, by that of chaos theory and fractal mathematics. A brief definition of each of these can be found in a separate index at the end of this work. Legal concepts such as enshrined within Formalism (textual interpretations) and Relativism (purposive interpretations), also informed the development of the theoretical legal aspects involved in this research.

Many of these theories are minor variants, and spin-offs, which are developed out of an original philosophical point of view. Oftentimes the differences between the original theories are either negligible, vague or difficult to discern. Nevertheless, they provide us with competing perspectives to better inform the research and develop keener insights regarding military and political strategy and its application regarding the use of armed drones to combat terrorism.

It is vitally important to understand the impact and consequences of previous historical and cultural developments and how these may have affected, either directly or indirectly, the current state of international geopolitics. Thus, events such as, the Peace of Westphalia,⁹⁰ the Sykes-Picot Agreement,⁹¹ the Balfour Declaration,⁹² the McMahon Hussein Correspondence,⁹³ or the

Treaty of Versailles (particularly concerning the dissolution of the Ottoman Empire and the Caliphate),⁹⁴ still impact international affairs today and are thus central to our understanding. Like the rings of a pond, which are formed, when a stone has been tossed, their reverberations can still be felt long after the initial event.

A cross-sectional analysis, of different political theories examined, reveals three broad central themes. The first relates to particularism and the rights of the individual advanced by liberal philosophers such as John Rawls. The second manifests itself by political and military isolationism for the United States. Finally, the third expounds a selective agenda, that of the expansion U.S. liberal democratic values, compounded using unilateral, anticipatory military intervention where and when necessary. Western industrial interests and expansionism are closely aligned with these democratic ideals. Of course, as with many of the theories and paradigms presented, there is a substantial intermingling between them. Some of the theories are particularly more adept at clarifying certain points of reference, while others seem to inherently contradict themselves.

A passage from imagination or speculative theory to realistic application is hinted at, for instance, in the writing of Taylor and Reising. Here one discerns a bridge between the relative application of RMA, the current research being conducted in this field, and the eventual possibility of totally autonomous robotics. The authors note that, “Although some progress has been made – there are UUVs operating in various areas of the world today – no integrated theory of human-automation integration has surfaced as of this writing.”⁹⁵ A clear and succinct description of the current reality. Such a perspective considers the various possibilities, limitations and the potential risks. We must always bear in mind that theoretical perspectives are, by nature, tenuous at best.

The research of current and future technological developments, as they relate to autonomous aircraft, was largely carried out through private interviews and consultation of first-hand sources. Interviews were also conducted to better interpret the legal implications and psychological aspects. During the current research, Tom and Helena Keeley, the developers of KEEL[®] Technology were interviewed, to obtain greater insight into the technological aspects of artificial intelligence (henceforth referred to as AI). These explanations were further enriched through email correspondence with Carlos Kopp. Lt. Colonel Dave Grossman was also consulted on various aspects relating to psychological trauma and killing in war. Amos Guiora also kindly accepted to be interviewed concerning certain legal and ethical aspects surrounding drone warfare and targeted killing. Finally, cautious examination of mainstream media reporting was referenced, while bearing in mind once again, possible falsehoods, unsubstantiated claims, misleading information, personal agendas, and biases.

Four Hypotheses

As I made clear when introducing my central question there are four hypotheses that are posited throughout the research. They are:

Hypothesis 1: *The widespread use of drones will become ever more prevalent in the modern battlespace. Reduced risk to personnel, plausible deniability, and increased public support, foreshadows an increased use of armed drones as the “go to” response for conflict resolution.*

Hypothesis 2: *A new, revised, and enforceable set of laws and rules of engagement, specifically aimed at transnational armed conflict and robotic warfare, must be developed and clearly defined. They shall succeed only if they are shaped through unified political will and coherent but flexible policies.*

Hypothesis 3: *Unmanned aerial vehicles will become more independent, precise, and increasingly autonomous in the political and military decision-making process.*

Hypothesis 4: *The war against terror is both ideological and kinetic [physical]⁹⁶ and a more cohesive, two-pronged approach, such as that afforded by effects-based operations (EBOs), is required to achieve any measure of lasting success.*

It is relatively clear that these significant advantages will automatically facilitate resorting to armed conflict as a convenient, cost-effective means of conflict resolution. Alternative soft power and smart power diplomacy measures, such as mediation, sanctions, condemnation, resolutions, suspension of aid and relations, boycotts, proactive investment, and nation building will eventually become less attractive and consequently be less relied upon. It is nonetheless essential to bear in mind, as Samuel P. Huntington importantly warns us, that “Soft power is power only when it rests on a foundation of hard power.”⁹⁷ Soft power, therefore in and of itself may be persuasive, but it does not carry the day unless backed by its more menacing companion. Likewise, hard power is futile unless accompanied by its more diplomatic companion. Caleb Carr, speaking of terrorism reiterated these reflections while emphasizing the existential menace that it holds forth, “For while it is true diplomacy should have its place in all wars, terrorists are no longer holding guns to our heads and making demands—they are pulling triggers without discussion or warning.”⁹⁸ Unfortunately, there has been a clear reversal in the approach to conducting modern warfare. Historically, states were required to justify their intervention prior to conducting any sort of armed conflict; the Just War Theory of *jus ad bellum*. In the current international environment, however, far more emphasis has been placed upon *way* war is conducted (*jus in bello*) as opposed to the *why* war is conducted (*jus ad bellum*).

This vacillation is currently a great problem in the war in Syria. Public opinion, shaped by the media, ranges back and forth. One day it finds favor in President Assad, and his attacks on IS, the next condemning him for the alleged use of poison gas. The political climate is no different, attack and support alternate rapidly as the wind. Bombard today, support tomorrow. There appears to be no concrete strategy in what appears to be a contest of wills, the advancement of vested interests, and the adoption of Occam's razor⁹⁹ and most often resulting in the support of what is considered the lesser of two evils.

Rosa Brooks, speaking on the enticement of adopting robotic warfare as a strategy, insightfully admonishes, "...if all that appears to be at risk is an easily replaceable drone, officials will be tempted to use lethal force more and more casually."¹⁰⁰ Michael Walzer reflects upon the alternatives and considers these less seductive measures, including others mentioned above, such as the establishment of no-fly zones and pinpoint targeted missile strikes as "measures short of war." Brunstetter and Braun later requalified these *jus ad vim* concepts or the just use of force, initially developed by Walzer.¹⁰¹

Thus, a different strategy and new approaches to combat this plague are called for. The current strategy has been influenced by an outdated perception, first advanced by Clausewitz, that success in war derives from the destruction of the opposing force. It is the contention of this research, as well as other authors and researchers, that we are fighting a new—a different type of war. This new war is one that combines both kinetic and ideological aspects. A premise which is echoed throughout the current research is that a new type of warfare and its associated responses also calls for either new or drastically amended regulation, legislation, and enforcement.

Dependent variables adjust in accordance with changes in the independent variables. At its most basic it is a cause and effect relationship. As the independent variable changes, it has a demonstrable effect upon the dependent variable. Some of the dependent variables outlined within the body of this research include legal, ethical, and technological boundaries and limitations in the use of unmanned aerial vehicles and their efficiency as instruments in counterterrorism. Thus, in an examination of drone efficiency, drones would be the independent variables while the success or failure rate would be the dependent variable.

Some of the numerous independent variables having an impact upon these dependent variables include: The effects of globalization and the question of nation-state sovereignty versus international mandates; the process of radicalization; political grand strategies and the balance of military versus diplomatic initiatives; the evolution international humanitarian law (IHL) and the development of enforceable legal precepts; international human rights law (IHRL) and the polarization of national self-defense as defined by Article 51 of the UN Charter; the ethical justification of targeted killing in the face of transnational aggression; the issues of collateral damage and its relationship to urban insurgent infiltration and human shielding; the articulation of international customary and treaty law in regard to the violation of national sovereignty and restricted air land and sea space; accessing intelligence from neutral or non-belligerent 3rd party states; technological advances in hardware and software engineering; the integration and consequences of discretionary reasoning in the decision-making process, such as human - computer interfaces (HCI), particularly in the case of enhanced autonomy and automatic target recognition and acquisition (ATR), with regards to normative and ethical standards; operational and strategic effectiveness of the use of UAS technology; socio-psychological characteristics and

the impact of targeted killing on victims and operators; the psycho-ethical issues of the target and distance relationship, incorporating the concept of *morality of altitude*.

Approach to Research

The body of the research is broken into three distinct segments: *Reaching*, which consists of examining the topic, posing specific questions to be answered and developing a path of investigation; *Bridging*, through examining the current literature and drawing cognitive connections related to this research and *Seizing*, during which findings and conclusions are drawn based upon all the potential resources available. Much like the *intelligence cycle*,¹⁰² this study utilizes a “research cycle.” This consists of: investigating the problem, analyzing the problem through personal experience and the aid of associated literature, drawing specific conclusions, and eventually presenting recommendations to provide various outlets for further research and policy development. These proposed changes and recommendations are presented in the conclusions of the final chapter.

It is impossible to merely delve directly into the questions surrounding the legal, ethical, and technological applicability of the unmanned aerial platforms, without also undertaking, at least briefly, the other surrounding, and essential issues which relate to them. There are numerous aspects, both negative and positive, involved in examining the role and use of UAVs and UCAVs. Each of these aspects is worthy of in-depth treatment and consideration. To fully understand the larger picture, we must consider topics, which may not appear at first blush to be relevant. Topics such as targeted killing; autonomous flight and the human-computer interface (HCI); theoterrorism; non-combatant immunity, human shielding; media exploitation, human rights versus national security, the doctrine of double effect; the Just War Theory, and so forth.

It is equally essential to separate the relevant materials, such as peer-reviewed journals and investigative reporting from some of the less academically reliable sources, which may be tainted with bias—sometimes very strong bias. Certain references such as *The Predator War*, a report by Jane Mayer, in the *New Yorker*, cited several times in this research, are infallible, while other more dubious articles must be subject to circumspect and rigorous examination for possible bias and error.

Reports from non-governmental organizations such as the American Civil Liberties Union (ACLU), Amnesty International (AI), and Human Rights Watch (HRW), were intentionally omitted due to their strong obvious bias, their sloped language, and selective reporting. This might seem counterintuitive to the uninitiated reader. Human rights organizations, such as HRW, are powerful international entities. The total expense budget for HRW was \$ 78,162, 105 in 2016, with reported revenues of \$60,888,259, and total net assets of \$214,651,900.¹⁰³ While undoubtedly well-intentioned, many of their arguments are selectively presented in support of a specific agenda. Consider the following example, that of a research report on the conflict in Columbia, between government forces and the FARC [Colombian Revolutionary Armed Forces], spanning the period between 1988 and 2004.

We process the main written output of Amnesty International and Human Rights Watch on Colombia covering the period 1988-2004, recording all numerical conflict information and accounts of specific conflict events. We check for internal consistency and against a unique Colombian conflict database. We find that both organizations have substantive problems in their handling of quantitative information. Problems include failure to specify sources, unclear definitions, an

erratic reporting template and a distorted portrayal of conflict dynamics. Accounts of individual events are representative and much more useful and accurate than the statistical information. We disprove a common accusation that Amnesty International and Human Rights Watch rarely criticize the guerrillas but do find some evidence of anti-government bias. The quantitative human rights and conflict information produced by these organizations for other countries must be viewed with skepticism along with cross-country and time series human rights data based on Amnesty International reports.¹⁰⁴

The above report indicated the use of vague, imprecise language, biased reporting, and indirect attributions. Of course, to be fair there are obviously varying degrees of abuse in reporting. The use of one-sided, selectively presented research and statistics, over-reporting, misreporting, emotionally laden semantics and presenting hearsay as purported fact, renders many of them less credible for the purposes of any sort of balanced and impartial evaluation. This type of manipulative reporting is referred to as “*information politics*” in social sciences. Cohen and Green examine the inherent conflict of competing issues of institutional credibility and issue dramatization, during Liberia’s civil war (1989 – 2003), regarding this issue¹⁰⁵ Humanitarian reporting quite often becomes distorted, clouded and colored by an alternate vision of reality.

In yet another instance of selective reporting, Kathleen Peratis, reported on her visit to Gaza where she investigated smuggling tunnels with members of Hamas. It is worth bearing in mind that Hamas has been designated terror organization by Israel, the U.S., EU, and Canada. Kathleen Peratis was co-chair of the Advisory Committee of HRW’s Middle East and North Africa Division, at the time of these reports.¹⁰⁶ An additional, perhaps less obvious problem, is

that those pointing out such bias may themselves have their own personal agenda in addition to that of the organization they represent. It, therefore, behooves both the researcher and reader to scrutinize any suspect reporting regardless the source. While the basic research presented by some of these organizations can be used, in a very general sense for the purposes of guidance, most of their production could not adduce sound evidence.

When comparing the relative merits of peer-reviewed material against that of mass media sources and public journalism, there is inevitably a tradeoff. Peer-reviewed, academic, empirically-based research material often takes a very long time to see the light of day, whereas journalistic reporting, although circumspect, is often up-to-date covering the most recent and topical events. It is up to the individual researcher to navigate between the two and attempt to develop a reasonable balance while drawing as clear and current a picture as possible. Of course, the same caveats apply to government reporting which may, itself, also be biased and prone to serving a specific agenda. Governments, however, have a much harder time distorting the facts, since they most often find themselves in the spotlight of public scrutiny and at least limited political and public oversight.

The Challenges

It is perhaps best to consider a few of the most probing and relevant challenges facing the use ofUCAVs in the modern battlespace and their relationship as a response to transnational terrorism. These contentious issues, which have caused so much ink to flow must inevitably be borne in mind, while advancing our analysis, to assist the reader in formulating an independent judgment. There are five core and immediate pressing areas that have sparked debate, and which shall be analyzed throughout the research:

1. Drones are considered as a method of extrajudicial assassination. They are depicted as depriving humans of the right to life and due process, both fundamental precepts and the cornerstones of liberal democracies. Once again, it must be borne in mind that vested national interests will always remain paramount and impede the progress of any such efforts to develop implement and sustain such an ethical framework.
2. Drones are considered unfair. Due to their technological superiority, they are considered as creating an unnatural and excessive asymmetric imbalance in the proportionality equation.
3. They are politically alluring. They seduce politicians into lowering the bar for conflict and create a false sense of justified confidence, due to the lack of friendly casualties (at least physically, if not psychologically). Meanwhile, however, their excessive exploitation fails to account for indirect consequences and long-term effects such as damaged legitimacy.
4. Drones are imprecise. There are numerous accusations of massive civilian casualties and collateral damage. The precision of such reports, however, remains questionable at best.
5. It has been proposed that the use of drones violates the sovereignty of states who are not at war. This, of course, depends upon the legal situation at the time. This concern may be (and indeed has repeatedly been), overridden in failed states, where it was determined that the lack of resolve or capability (the unwilling or unable test) to establish the rule of law, present a direct threat to an external state. Furthermore, sovereignty is not infringed when the legal criteria under Chapter VII, Article 51 (self-defense), Chapter VII, Article 42 (UNSC authorization), or state consent is afforded.

Conversely there exist, perhaps unsurprisingly, five countervailing positions, which serve to balance, neutralize or respond to each of these various challenges, as hinted at in their descriptions. These issues, presented above, will be analyzed, examined and evaluated throughout the course of this research. I will attempt to fairly address both sides of the argument—both for and against the use of drones as a weapon of choice. As might be expected, both the positions supporting and those against the use of UCAVs are largely, or at least in many cases, based upon a somewhat subjective interpretation of international humanitarian law. Both proponents and critics select those sections which best suit their needs. Law, as an instrument of governance, is deliberately designed to be flexible to allow for unforeseen circumstances and exceptions to the rule. In the case of drone warfare, the entire paradigm was unforeseen and grew at such an alarming rate, that it was difficult to keep pace with and adjust the law accordingly. Please refer to the figure below for a comparative perspective relating to this debate. These perspectives are my own, however, they are drawn from a general consensus on the subject.

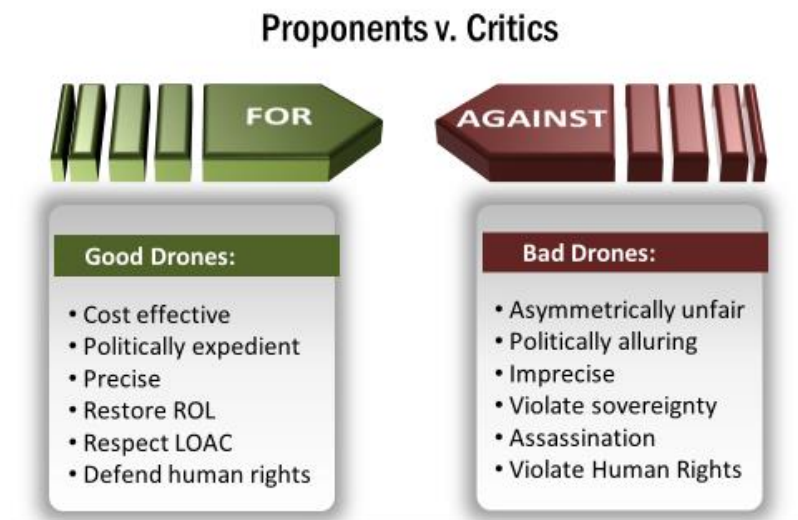


Figure 1© James P. Welch 2018.

There are strategic, operational, tactical, historical, cultural, political, economic, social, technological, and humanitarian issues which must be taken under consideration, examined, developed, and evaluated to develop a more cohesive understanding. Additionally, accurately analyzing these elements often depends on whether they are held according to a national, transnational, regional, or international perspective as a scale of measurement. These viewpoints can also change, in their approach and interpretation according to a frame of view; for instance, that of a realist, versus a liberal or constructivist perspective.

Terrorism and The Clash of Consciousness

*“The idea of Voltairean tolerance is lively and sometimes rough debate,
the idea of multiculturalist tolerance is polite silence.”¹⁰⁷*

—Paul Cliteur and Tom Herrenberg, *The Fall and Rise of Blasphemy Law* (2016)

When considering the use of drones and targeted killing as weapons of counterterrorism, it is incumbent upon us to also examine, if only briefly, the phenomenon of terrorism as a strategy. The fact is that the vast majority of terrorist-related conflicts are the result of various interpretations of Islam. There has been great sensitivity regarding this topic and a culturally driven reticence to recognize reality. One cannot possibly hope to combat an idea without being able to discuss it. What Huntington correctly referred to as a *Clash of Civilization's* could be more precisely considered as a *Clash of Consciousness*, which in turn incorporates a clash of tolerance. For at the very basic level we are what we think.

One of the most lucid clarifications casting light upon this phenomenon is the remarkable contribution by Cliteur and Herrenberg, where they explain their concept of “Voltairean

tolerance. This concept they have contrasted with what they refer to as “multiculturalist tolerance.” For Cliteur and Herrenberg Voltairean tolerance adopts a position where “You can disagree, but you should not aim to silence your discussion partner.”¹⁰⁸ In other words, quite simply, we agree to disagree. The authors suggest that it is only through the adoption of such a stance that any consensus may eventually take place. They contrast this type of approach with that of multiculturalist tolerance which silences all criticism. Often subsumed under the label of “political correctness,” multiculturalist tolerance is based upon the supreme injunction of avoiding offense to other parties at all cost. The negative aspects of such a restrictive view are knowing what exactly should be considered offensive; evaluating different cultural interpretations and, above all else, the muzzling of the free expression of thoughts and ideas.

For most people, terrorism is something that happens to others, not to them and therefore they are lulled into a false sense of security—a sense of security reinforced by the safety of robotic warfare. This is not, of course, what terrorists hope to project, they wish to instill fear and chaos. Fear and the projection of fear are their most powerful weapons. Creating a public lack of confidence in the government’s ability to provide security is a core strategy of terrorists.

The psychological dimensions of terrorism have been exhaustively examined by many leading writers in this field. There has been, however, little to no consensus achieved in this domain. There has been a rather obstinate adherence to Freudian psychodynamic principles in the search for psychopathological motivations. This contested approach was, however, embraced by Jerold Post, a leading and controversial author in the field. While his approach may be contested, it is nevertheless still worthy of our consideration. Other authors, such as Marc Sageman and Maxwell Taylor, have posited that there is no significant psychological aberration among those electing to resort to terror.

In the interests of understanding group or crowd psychology and the interactions related to social psychology a very good primer is provided in the writings of Gustave Le Bon. While first published in 1895, Le Bon, brilliant by any standard, played a leading and significant role in the understanding of the principles behind group related psychology and violent behavior. Indeed, many of his ideas presaged those of Sigmund Freud and his writing on crowd control also exercised an influence upon such historically significant figures as Freud, Hitler, Mussolini, Lenin, and even Theodore Roosevelt. His expertise and insights still resonate strongly to the present day. Another author who contributed to the current research and the understanding of group dynamics was Stanley Schachter in his title, *The Psychology of affiliation*. As we shall see later small group dynamics play a key role in the process of radicalization and the spread of terrorist ideology. Maxwell Taylor examines the issue from the behavioral aspect, relying upon a Skinnerian approach (B.F. Skinner), rather than from a psychodynamic model. In other words, the behavior becomes the defining aspect of fanatical response, rather than determinations of a psychological character.

Research Significance

The information and insights developed during this research examine the extremely polarized positions within international humanitarian law and international jurisprudence. The current rules, laws, and regulations are outmoded, inadequate and must be addressed. “Essential point: the U.S. seems to be struggling to adapt its 20th-century moral code of warfare to the 21st-century practice of sending flying robots into other countries to kill people,”¹⁰⁹ clarifies Grossman. Michael N. Schmitt also cogently submits that “...interpretation of ambiguous norms has to reflect contemporary warfare. States both apply and are the subjects of international humanitarian law norms. Said norms must remain relevant to contemporary circumstances if

States are to remain willing to implement them in practice.”¹¹⁰ It is the opinion of this research the current outdated and inappropriate norms relating to international relations and the just conduct of armed conflict are no longer suitable, nor are they adaptable to the current state of asymmetric warfare which can include militarized non-state actors, sub-nationalist groups, and transnational organized criminal activity (TOCA). Fortunately, there have been promising efforts in this direction such as the initiative represented by the six-year, 56-page, study conducted Harvard University which resulted in the, *Manual on International Law Applicable to Air and Missile Warfare* (2009).¹¹¹

Those on the pacifist side of the equation would argue otherwise, advancing that the current laws are adequate if properly enforced (according to their specific and tightly bound interpretations). Unfortunately, effective enforcement of such rules remains highly improbable.

This is a new type of hybrid warfare and as such calls for the evolution and insightful design of suitable laws designed to deal with these new phenomena. There are clear warning signs, all about us. The opportunities for bold and decisive action are rapidly fading. While this research focuses primarily on U.S. systems, the precepts are equally applicable to all states adopting this new and lethal technology. This research provides a possibility for an enhanced understanding of these fundamentally contentious issues, while simultaneously laying the foundations for further research.

Another positive objective is to establish a functional framework concerning the legal, ethical, and technological challenges, limitations, and boundaries, relating to the use of armed drones. The current polemic is murky and shrouded in obfuscation. To place limitations and boundaries on the use and application of any combat-proven technology, it is imperative to first examine, as

in the case of the current research, the historical, and ethical precedents. This study also highlights the far-reaching consequences of advances in technology, while the legal, and ethical impact of increased autonomy in unmanned aerial vehicles is evaluated. The relationship between the rise of Islamist theoterrorism and the use of armed drones, as a tactic of response, is also subject to rigorous scrutiny. The various political, strategic operational, and tactical advantages, disadvantages, and ramifications are explored. The social and psychological dynamics including collateral damage, trauma, and morality of distance are also investigated. As with any research project, it is the hope of the author that the material presented here will provide insights and foster even greater efforts at research in the quest for providing effective solutions in these troubling times.

Summary

This chapter laid out the ground work for the remainder of the book by introducing the various themes, which shall be covered in depth and analyzed more fully. The theoretical models used to develop the core of the research were examined. Conceptual paradigms and philosophical frameworks, relating to international geopolitics and war—realism, liberalism, constructivism, etc., were outlined. Important historical considerations were also briefly highlighted.¹¹²

The four central hypotheses, to be examined were clearly defined. The first being that *Unmanned aerial vehicles will become more independent, precise, and increasingly autonomous in the political and military decision-making process.* The second hypothesis theorizes that *A new, revised, and enforceable set of laws and rules of engagement, specifically aimed at transnational armed conflict and robotic warfare, must be developed and clearly defined.* Furthermore, it was stipulated that they shall succeed only if they are shaped through unified

political will and coherent, but flexible policies. The third hypothesis, a strategic concern of international importance, posits that *the widespread use of drones will become ever more prevalent in the modern battlespace. Reduced risk to personnel, plausible deniability and increased public support, foreshadows an increased use of armed drones as the “go to” response for conflict resolution.* Finally, and certainly no less important, the fourth hypothesis stated that *the war against terror is both ideological and kinetic and a more cohesive, two-pronged approach, such as that afforded by effects-based operations (EBOs), is required to achieve any measure of lasting success.*

Positions of both critics and proponents were developed, representing the five central challenges, or points of contention. It was also indicated that for each of the core challenges there exist five countervailing defenses. The core objections and their rebuttals are examined throughout the research. The importance of academic integrity, avoiding bias, and the need for care when selecting various materials for research was also broached. We briefly examined the dependent and independent variables relating to this research.

There are multiple considerations involved in researching unmanned warfare and theoterrorism. These include: historical, political, economic, social, cultural, strategic, operational, tactical, legal, ethical, humanitarian, and technological aspects, to mention but a few. Each of these has its own specific boundaries and limitations which need to be sketched out and properly defined. Such a definition must consider national, regional and international influences and interactions as well. Finally, and certainly no less important, the interdependent relationship that has been developed and fostered between drones and theoterrorism was clearly established.

Chapter III

*“...any man's death diminishes me, because I am involved in mankind,
and therefore never send to know for whom the bells tolls; it tolls for thee.”*

—John Donne, *Devotions Upon Emergent Occasions. Meditation XVII* (Nunc Lento Sonitu Dicunt, Morieres. Translation: *Now this bell tolling softly for another, says to me, Thou must die.* 1624).¹¹³

FOR WHOM THE BELL TOLLS: COSTS AND CONSEQUENCES

Targeting Imprecision

When we consider the *fourth major objection* or challenge raised earlier, the assumption that drones are imprecise and lead to excessive civilian casualties, the calculus is, relatively straightforward. This is particularly the case if we are speaking merely of the technical aspects of the weapons package, and its relationship to collateral damage. The truth of the matter is that this newest technology is robust, both in its striking precision and in reducing and containing the number of casualties to a more confined area. This fact has been proven on numerous occasions.

Additionally, constant enhancements and improvements in avionics, optics, and missile guidance systems, have led to even greater efficiency and precision. Any imprecision is more likely due to human error than system faults. While there are other areas where the precision may

be called into question, as far as targeting and delivery are concerned, drones have proven remarkably efficient, despite criticism to the contrary.

There are some who disagree with the perspective that drones are nothing more than a tactical delivery platform for munitions. Braun & Brunstetter, however, argue that the nature of the platform entirely alters the way in which war is waged.¹¹⁴ Currently, at least, there is still a human in the loop, and in this respect, they are no different from any other manned aircraft, albeit the operator targets from a much safer, more distant environment. They are, as a matter of fact, more precise due to their hovering and loitering capability. The fact that the Hellfire missile load can be delivered from a helicopter, patrol boat, fixed-wing aircraft or semi-autonomous aircraft, invalidates the singular arguments which have been selectively applied against the use of drones and their weapons payload. It appears that the impersonal and relative risk-free nature of the platform has more to do with the resentment against these birds of prey have garnered, than with the actual question of precision.

It should also be borne in mind that many of the reports of civilian casualties have also been greatly exaggerated, fabricated, or based upon unsubstantiated hearsay and speculation. Conversely, given recent documented and verified revelations, made by sources such as the *McClatchy report*, the human-rights group *Reprieve*, and the digital magazine *The Intercept*, it appears there are indeed more noncombatant casualties and less accurate target strikes than had been previously advanced by the Obama administration.

Reprieve reported in 2014, for instance, that as of November of that year 1,147 persons had died in attempts on 41 targets.¹¹⁵ Often, a target is sought out multiple times, thus increasing the civilian casualty count. It must, however, be specified that these shortcomings are related to the

identification and prosecution of the strikes and not the responsibility of the accuracy of the weapons platform itself. We can no more hold drones accountable for the death of noncombatants than we can blame a vehicle for being responsible for a deadly car crash when driven by a drunken motorist.

In other words, it is a lack of strategic foresight and accuracy in intelligence and execution, which are largely at fault, and not a lack of precision in the weapons system itself. One of the problems with these sources is their obvious bias and the use of conditional language. Their usefulness as serious research material, unfortunately, is therefore circumscribed by their own obvious agenda. While the *Intercept* and the *McClatchy Report* both have an obvious bias, they also provide a wealth of verifiable information. Care needs to be taken. However, in interpreting the data presented.

The lightweight design and the integrated circuitry of their avionics renders drones highly vulnerable to climatic conditions. There are many factors which can wreak havoc on these “fragile birds of prey,” which in turn could conceivably result in loss, destruction or even collateral damage if they come down in a populated area. There is no question that conditions such as weather, cloud cover, delays in transmission signals, and faulty components, can indeed limit the operation and efficiency of the platform. The components used in these aircraft are highly sensitive digitized materials and are susceptible to damage from the harsh environment in which they operate. This initial vulnerability is, however, misleading if considered in isolation. The fact is that any new technology requires a period of testing and application to be able to work out the possible systematic flaws. Given the real or imagined advantages offered by drone technology, they were rushed into the field of operations to provide immediate assistance prior to their having gone through rigorous field testing and evaluative examination.

In other words, testing was basically measured by their performance in the field of operations. Is it any wonder, given these facts, that there would be a significantly higher number of accidents recorded? Another important and often overlooked element is that These factors will contribute to the negative performance reports relating to drones for the foreseeable future, until such time that the reported flaws can be detected, isolated, and improved upon. Once again, however, the errors are more likely attributable to external (satellite signal transmission), or human shortcomings in the ISTAR (intelligence, surveillance, targeting, and reconnaissance) process, rather than any inaccuracy of the platform and its components itself. Finally, technical problems are diminishing following this initial period of evaluation, evolution, and adaptation.

There exist counter-arguments to this position, concerning the accuracy of drones. These counter-arguments, however, rather paradoxically tend to support the position of the current research, rather than reduce its validity. This is due precisely to the fact that the shortcomings, noted by critics, most often revolve more around attribution blunders, such as a lack of coherent strategy or concrete intelligence estimates, rather than errors in the technology itself.

Early in the program, there were, also notable instances of pilot error. Some of this was related to a drastic reduction in training time due to a pressing need for pilots. McCurley, for instance, reported that “Over the years training has been trimmed. Pilots graduated barely qualified for combat, a stark contrast to the full program I had completed nearly two years before. The ever-increasing need for crews in combat justified these cuts. A crew’s first flight with their permanent squadron was in combat over a live target with live weapons. Spin-up happened on the fly, literally.”¹¹⁶ If indeed the axiom “practice makes perfect” holds true then such a failure, of adequate training and obvious neglect opened the door to substantial human error. Such errors and shortcomings should logically diminish over time.

The McClatchy report gained valuable access to a large and rather complete number of intelligence reports and deduced that the drone campaign was in fact far less efficient than previously presented. Note, however, that they were referring to the shortcomings related to the *prosecution of the campaign* and not the performance of drones themselves. Thus, in a manner of speaking it was the cooks who spoiled the soup and not the soup itself. The report indicated that during the 12 months ending in September 2011, 43 of a total of 95 strikes were against non-al-Qaeda elements. That is an average of 45%.

Mary Ellen O’Connell, arch-critic of drone doctrine outside the battlespace explains, “The United States began using weaponized drones to attack the border area between Afghanistan and Pakistan,” and further that “Drone attacks by the U.S. in Pakistan began in 2004.”¹¹⁷ O’Connell further asserted that “These attacks resulted in the deaths of hundreds of unintended victims including children.”¹¹⁸ It must be emphasized in response to such assertions, however, that extreme caution must be exercised, with the use of such, unofficially unsubstantiated, statements, when putting forth specific numbers of civilian casualties.

We must also ask ourselves the question, does it automatically follow, that if there are “hundreds of victims,” we are automatically obliged to demonize or prohibit drones as a weapons platform worthy of consideration? Other armament systems also result in comparable, if not greater, numbers of victims. We come full circle to the tenuous objections raised concerning alleged asymmetrical “unfairness.” This issue shall be thoroughly investigated throughout the course of this work. These same arguments have historical antecedents which posed challenges to earlier forms of armament, including the crossbow, the tank, the submarine, and the machine gun—today it is the turn of the drone.

This concern expressed by O’Connell is also echoed in an article by Christian Enemark, who underscores the difference in calculus between other forms of military technology and the risk posed to the operator “However, when a mode of killing is risk-free to the individual killer, it is worth asking whether or not “war: is going on at all.”¹¹⁹ Are unintended civilian casualties, however, not the unfortunate consequences of *any* armed conflict, regardless the weapon of choice? Surely the incredibly accurate, “smart” surveillance technology and precision munitions, currently employed, serve to help *reduce* excessive civilian casualties. Elshain concurred with this view and considered that such new and enhanced precision technology, “serves the ends of [target] discrimination.”¹²⁰ The fact is that the target selection status (TSS) process within the designated weapons engagement zone (WEZ) is carefully monitored and tightly controlled prior to any targeting commands being issued. Despite these precautions, however, mistakes do occur; part of the inevitable fog of war.¹²¹ There are extensive procedures in place, both legal and operational, to comply with the laws of war. Additionally, the U.S. Military has adopted a complex system of calculation and goes to great lengths to ensure that any damage inflicted is proportional to any perceived military advantage to be gained in the targeting process.¹²²

Such a lack of effectiveness can also raise issues, and criticism concerning the prosecution of the conflict and these have not always been exclusively from external sources. In 2006, for instance, there was a major flare-up between a ranking member of the Australian Defense Forces and a U.S. senior commander. The Australian officer, according to reports appeared to have witnessed extensive civilian casualties resulting from a U.S. land-based rocket strike, during Operation Mountain Thrust. The Australians claimed to have witnessed unmanned aerial footage

of numerous civilian casualties including children. The confrontation only became public in 2009.¹²³

If the numbers presented by O’Connell, which remain largely unsubstantiated, were indeed correct, then perhaps she might be justified in her assertion that the, “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.”¹²⁴ It is important to recall, as indicated several times throughout this work, the proportionality principle in no way infers that a fight must be fair, or that each side has an equal chance at victory. The proportionality principle requires that an attack must be cancelled if the expected harm to civilians will be excessive to the anticipated military advantage gained.¹²⁵

Such a definition may appear to be rather vague; Since the relative value of a target is subjective. However this principle is clearly outlined in Additional Protocol I to the Geneva Conventions. As far as the damage they incur is concerned, however, it is presumably far less than that inflicted by the two atomic bombs dropped on Nagasaki and Hiroshima, the firebombing of Dresden during WWII, or the carpet bombing that was a characteristic feature of the Vietnam conflict. Thus, when employed as a tactical platform, the magnitude of damage inflicted, is really a non-issue when speaking of drone warfare.

While the use of disproportionate force is illegal under international law, it is an extremely difficult concept to measure, in the modern battlespace. The ultimate proportionality calculus, when estimated in relation to intended military advantage, remains unquestionably with the judgment of the field commander according to the precepts of international humanitarian law. There do not appear to exist any legal or ethical barriers to the adoption and employment of this

new technology. While something may be legally and ethically acceptable, however, does not always imply that is necessarily wise. A primary objective of this research is to analyze and define the utility, boundaries, and limitations of this technology for its effective use in counterterrorism operations.

Armed drones have proven themselves, more selective in their targeting, more precise in their application and less destructive in their aftermath. As Brunstetter and Braun emphasize, “The point is that drones arguably cause less damage than the often unpredictable and destabilizing effects of large-scale uses of force.”¹²⁶ If there have been shortcomings, they are more often related to intelligence failures, or questions of command, control, communications, and intelligence (C3I) rather than the accuracy of the given platform itself.

This became painfully evident in the October 2015 strike which mistakenly hit a hospital in the Kunduz region of Afghanistan, run by the non-governmental organization (NGO) *Médecins Sans Frontières* (MSF or Doctors Without Borders). During this particularly deadly strike, 10 patients died along with staff members, resulting in a total civilian casualty count of 42 dead. It is vitally important to point out here that, while critics use this raid and justifiably so, to condemn callous and inefficient targeting, this kinetic strike was conducted by a US AC-130 gunship with a crew, and the failure was attributed to onboard sensor and communications failures, and human misjudgment. Making matters even worse the hospital had been observed for 68 minutes prior to opening fire, and no hostile activity had been detected.¹²⁷ It is entirely conceivable, that a similar error might have been avoided had a drone been employed in the case of the gunship.

Despite the criticism which has been levied, the U.S. Army Field Manual 3-0, itself clearly reflects confidence in the enhanced capabilities of modern targeting platforms, “The extended range, capabilities, and accuracy of modern weapons systems (direct and indirect) and target acquisition systems make fires more lethal than ever before.”¹²⁸ While such an insight is certainly enthusiastic, it must be borne in mind that lethality does not automatically equate with precision. Fortunately, in the case of drones both lethal capabilities and precision target acquisition have been combined within a single platform.

Boots on the Ground

As clarified earlier in this book, I have incorporated perspectives from my own actual participation in these zones of active combat. During my second deployment in 2011, at a forward operating base (FOB), in the Khost province of Afghanistan, close to the Pakistani border, our base was subjected to a constant barrage of mortar rounds by day and a steady regime of sniper attacks by night. Often the attackers would sneak across the long, porous border, attack and then immediately withdraw. A rather common insurgent tactic as espoused by Mao himself.

Our base was nestled in a valley at the base of the bleak, rocky foothills which rose to the surrounding mountains. Due to these geographic constraints, the base could only receive small takeoff and landing aircraft known as “STOLIES.” Upon our arrival, we were greeted by an insurgent welcoming committee, lobbing mortar rounds onto the runway. The young slightly overweight soldier, running next to me, was breathing heavily, his cheeks puffed out and flushed red with the exertion. I grabbed one of his bags as we dashed, for cover, either behind the Hesco barriers¹²⁹ or in the nearest available hard shelter, accompanied by the “whoosh” of the falling mortar rounds. There was no time for second thoughts nor reflections on the wisdom of having

accepted this deployment. They were out there, and they were looking to kill us “so much for democracy,” I thought to myself. I was so tired and worn out by the time I got to my makeshift quarters that there could have been a Taliban suicide team, or a deadly krait (snake) under my bed and I would never have even noticed. Attacks were so frequent that we were only able to move about using small, shielded and colored hand lamps once night fell.

When it wasn't mortars rounds it was Chinese Type 63, 107 mm rockets, or sniper fire. C.J. Chivers writing for *The New York Times*, in 2011 remarked that during what we referred to downrange as the “fighting season” (roughly the 6-month period between May and the end of October) there was a drastic increase in the number and volume of rocket attacks. These attacks took place in Paktika and Khost provinces which bordered the Waziristan region of Pakistan. Whereas in 2010, there had only been two such incidents during this period, there were 59 attacks recorded in 2011.¹³⁰ You always knew the distinct whistle of the 107 when you heard the call “incoming,” incoming!” over the loudspeakers. It was said that if you heard the tell-tale shriek of its whistle it was already too late, and you were finished, because you wouldn't even have time to experience the detonation of the heavy explosive warhead (HE). There was some truth to this because I heard and saw their devastation up close. They pack a powerful punch and often passed right through the walls of our billets.

Whatever the source, it was called indirect fire (IDF). These attacks were often complemented by full-fledged “banzai-type” suicidal charges¹³¹ numbering 300 or more insurgents at a time, known as “Dragon Black's.” Several cross-border incidents were of a significant magnitude involving heavy trucks laden with high explosives. The cumulative and incessant effect of these attacks was equivalent in intensity to that of a single large-scale attack, and perhaps, in some respects even more difficult to contend with. This appears to be the opinion of both Wettberg and

Dienstein as cited in Molier, however, Wettberg imposes a principle of “severe quantitative gravity, while Dienstein proposes a doctrine of accumulated events.” This caveat appears to be an effort to bridge the gap which currently exists between the cumulative and severity criteria.¹³²

The State’s Right to Self-Defense

The question of self-defense has a long lineage in international law. Grotius, himself pointed out the fact that, “[t]he right of self-defence...has its origin directly, and chiefly, in the fact that nature commits to each his own protection.”¹³³ There exists a difference of interpretation between what is considered a natural and inherent right and the constraints of positive law.¹³⁴ This is a reflection of the long-standing struggle to find an appropriate balance between international law and state power. It is difficult under such circumstances, as those described previously, to precisely determine what constitutes and qualifies the criteria of, imminent, overwhelming and grave danger, regardless of these being “mere” cross-border skirmishes. Things look much different when one is on the receiving end.

It is also worth noting that according to the decision of the ICJ in *Nicaragua v. U.S.* that, “The Court sees no reason to deny that, in customary law, the prohibition of armed attacks may apply to the sending by a State of armed bands to the territory of another State, if such an operation, because of its scale and effects, would have been classified as an armed attack rather than as a mere frontier incident had it been carried out by regular armed forces.”¹³⁵ Thus the scope and scale of the attacks do indeed have an impact on defining an action as an armed attack in the legal sense. In fact, the Court mentions and takes into consideration in its judgment the aspect of *scale and effects*. Unfortunately, the qualification of state attribution remains a sticking point.

An alternative position, less frequently articulated, is the proposal to have a stronger enforcement mechanism framed within Article 51 (perhaps by the inclusion of an annex), guaranteeing the states' absolute right to self-defense, regardless the source of aggression. Dill makes a worthwhile and balanced observation here worthy of consideration, "The best the international community can currently do to ensure that a state has a shot at truly and effectively winning a war in self-defence is to underwrite states' Article 51 right with a promise to intervene on their behalf if their own defensive action in accordance with the logic of sufficiency proves ineffective in overcoming an aggressor militarily."¹³⁶ While this is certainly a reasonable and legitimate proposition, and also underscores the boundaries and limitations faced by states in the case of self-defense actions. A position the current geopolitical environment and the international legal framework fail to adequately address.

Regardless of the position adopted, concerning targeted killing and the use of armed drones, the primary obligation and principle function of any state remains that of delivering protection to its own civilian population. This important principle also incorporated into the ICISS report,¹³⁷ cannot be emphasized strongly enough. This report, initially destined to enforce state responsibility for the respect of human rights toward its own citizens, by extension also raises the obligation of a State to provide protection against external agents as well. Moreover, it is a foundational principal—the "raison-d'être," or the reason for a State's very existence. This is not by any means a new perspective and is reflected in the Latin dictum: *salus populi suprema lex esto*, which roughly translates to: "The priority of good governance is the welfare of its people."¹³⁸ This sentiment was famously popularized by the father of the social contract, Thomas Hobbes, in his 17th-century masterpiece *The Leviathan*.

The position adopted by this research is: yes, the state does indeed benefit from an inherent right to self-defense. However, the contours of that right must be clearly delineated and defined within specific parameters; parameters which ethically balance and respect both the inherent right and the spirit of restraint (not restriction).

The international legal regime with regard to the use of interstate armed force, the so called *ius ad bellum* is primarily laid down in the UN-Charter. The most important rule of *ius ad bellum* is art. 2 par. 4 of the UN-Charter, which contains the prohibition on the use of armed force. In the next chapter we will take a closer look at the UN-Charter, in order to understand the current legal regime regarding the use of force.

. Before questions relating to targeted killing, the use of armed drones, and even questions relating to illegal belligerent status and rendition can be addressed, the issue of anticipatory self-defense and the justified use of state force must first be settled, since the latter flow from the former. The question of anticipatory self-defence also will be dealt with in the next chapter on legal considerations.

Assassination, Treachery, and Perfidy?

Some critics have equated the use of drones and targeted killing with assassination, treachery, and perfidy, which is prohibited according to the rules of *jus in bello*, such as The Hague Convention IV, Annex, Art 23(b), Oct. 18, 1907, 36 Stat. 2277, 2301-02. Questions of assassination, treachery, and perfidy (of which treacherous killing or assassination is merely one sort of perfidy) are by no means new to the laws of war. These criteria were previously examined, to a greater or lesser extent, in these erudite and seminal classics: Balthazar Ayala's

De Jure et Officiis Bellicis et Disciplina Militari Libri III (1582), Alberico Gentili's *De iure Belli Libre Tres* (1612), Francisco Suárez's, *Tractatus de legibus ac deo legislatore*, (1613), the much esteemed *De Jure Belli ac Pacis Libri Tres* (revised edition of 1646), by Hugo Grotius, and Samuel von Pufendorf's work (inspired by Hobbes and Grotius), *De iure natura et gentium* (1672), Emerich de Vattel (1758) *Jus Gentium Methodo Scientifica Pertractum* (The Law of Nations According to the Scientific Method, also heavily influenced by Grotius's writings as well as those of Leibniz).

Cullen, counters such assertions and criticism, relating to targeted killing, by pointing out that, "Provided the manner of a targeted killing does not involve treachery or perfidy, it is not an illegal assassination under international law."¹³⁹ Injections, explosions and other forms of targeting are certainly within the realm of technological possibilities. The U.S. Department of Defense research agency DARPA has already developed robotic UAV insects such as a hummingbird. Any future modifications involving the legal perspectives related to the use of targeted killing should also necessarily include enhanced, and consistent legal and ethical training for commanders, operators, and legal staff as applicable under international humanitarian law. This aspect has been increasingly neglected and ignored. Part of this neglect stems from the ever-increasing complexity relating to the field.

Over the past, more balanced views and approaches have been proffered by such prolific scholars as Amos Guiora, Kenneth Anderson, and Peter Cullen. Guiora, while defending the rights to preserve national security and preemptive self-defense, also establishes precedents for well-defined targets and strategically measured response under international humanitarian law. While hotly contested, preemptive attacks (anticipatory self-defense), sometimes referred to as the "Bush Doctrine," have gained increasing acceptance, notably by Israel and Russia, as well as

in the case of humanitarian and so-called pro-democratic interventions. Their ethical legitimacy and legal justification, however, particularly in these latter cases, rests upon shaky footing and is far more questionable.

Striking a Balance

One of the major ethical dilemmas posed by many critical thinkers is the view that enhanced technology lowers associated risk factors and thus, inadvertently, opens the path to warfare and provides a greater propensity for resorting to armed intervention as the sole recourse to conflict resolution. This is also the primary thrust and assertion adopted by the present research. Rosa Brooks, writing for *Foreign Policy* magazine, in 2012, echoed these sentiments, "...By lowering or disguising the costs of lethal force, their availability can blind us to the potentially dangerous longer-term consequences of our strategic choices."¹⁴⁰ This theme has also reverberated consistently throughout numerous sources consulted during the current research.

Benjamin Friedman repeatedly echoes these assumptions, "Even the most avowed fans of drone strikes should admit that by lowering cost, they preempt debate and make killing easier," and he depicts the consequences of this as "a problem for democracy."¹⁴¹ Radsan and Murphy additionally conclude that "The lower 'costs' of drone strikes, however, encourage governments to resort to deadly force more quickly..."¹⁴² While such support does tend to attest to the relative validity of the perception, the assertion has not, as yet, been empirically proven.

Evidence to support such a viewpoint is, however, increasingly strong, as reflected by an ever-expanding area of drone-related operations, in Libya, Yemen, Somalia, Afghanistan, Pakistan, Syria (possibly Mali and the Philippines as well) more recently Niger, and elsewhere. One brake on this reflexive response to conflict resolution is held forth by adherence to the tents

of Just War Theory. Esther D. Reed, for example, astutely notes that “[...] JWT [Just War Theory] resists premature militarization of a problem that might be dealt with by other means [such as diplomacy or sanctions].”¹⁴³ Of course, such a supposition is dependent upon the proper enforcement mechanisms, which, for the present at least, remain weak or nonexistent. Furthermore, sanctions and diplomatic pressure hold little promise and exercise negligible impact upon transregional and transnational theoterrorist organizations.

Confirmation of this “escalation theory” was also apparent in the use of a US predator drone to attack Libyan, Colonel Gaddafi’s fleeing convoy. While attempting to escape he was targeted, first by a predator which let loose with several AGM-114 Hellfire missiles, followed up by a salvo of 500 lb. Paveway bombs, or AASM munitions, from French jets just for good measure.¹⁴⁴

It is a torturous mental exercise to understand the legal nuances which would permit such selective interpretations of IHL and IHRL. If this well-orchestrated assassination does not qualify under the heading of treachery and perfidy, then little else will either. This was, for all intents and purposes, a high-tech, political assassination conducted upon a fleeing sovereign head of state. This event established a disturbing precedent where a blind eye was turned, in favor of political expedience sponsored by international collusion under the feigning legitimacy of NATO. While such actions may have been legally sanctioned, they were, nevertheless ethically questionable at best. The reign of anarchy and violent chaos which currently prevails in Libya today bears sad testimony to a failed military intervention in the name of “humanitarian” intervention and “peaceful” international relations.

The real crux of the problem has been the advent of what I have taken the liberty of defining as *laissez-faire* geopolitics.¹⁴⁵ There has been an increased prevalence by the United States, in its position as the unipolar military hegemon, to serve as judge, jury, and executioner in the arbitration of international conflicts. There have been unparalleled, breaches of sovereignty, even if at times justified in the light of events, and a failure to respect standard diplomatic protocols. Much as with *laissez-faire* economics, *laissez-faire* geopolitics also carries the warning of *caveat emptor*

Michael Byers underscores the manipulative character that political influence currently exercises upon modern international law, “Whenever the US government wishes to act in a manner that is inconsistent with existing international law, its lawyers regularly and actively seek to change the law.”¹⁴⁶ Importantly though, not only do lawyers seek to change the law, they also attempt to reinterpret it as well. There is a distinct failure to follow the rule of customary international law and accountability and to summarily execute heads of state without the slightest sense of due process. Much of this has been accomplished using this new and powerful technology we refer to as drones. The Libyan case study offers us insights into the more far-reaching dimensions of drones when used as a strategy for the extension of political power.

In other additional developments, *The Guardian* newspaper reported that during July 2015, US forces attacked, Muhsin al-Fadhli, thought to be the operational leader of the radical Khorasan group. He was reported as having been killed in the strike, following false reports of his death in 2014. As might be expected, he was automatically qualified as a high value target (HVT), since attaching such a stigma automatically legitimizes the targeted killing. The attack on the Khorasan group itself, however, was justified by the US Government as a form of individual and collective self-defence. In its letter to the Security Council Samantha Power, the

then permanent representative of the United States of America to the United Nations stated that: “ISIL and other terrorist groups in Syria are a threat not only to Iraq, but also to many other countries, including the United States and our partners in the region and beyond. States must be able to defend themselves, in accordance with the inherent right of individual and collective self-defence, as reflected in Article 51 of the Charter of the United Nations, when, as is the case here, the government of the State where the threat is located is unwilling or unable to prevent the use of its territory for such attacks. (...). In addition, the United States has initiated military actions in Syria against al-Qaida elements in Syria known as the Khorasan Group to address terrorist threats that they pose to the United States and our partners and allies.”¹⁴⁷

Since there didn't seem to be a direct threat to the United States this seems to be a very expanded interpretation of the right of self-defence of art. 51 of the UN-Charter by the United States government. This increasing violation of sovereignty, in cases where national self-defense does not seem to be the real issue, raises the question of whether international rules pertaining to sovereignty still apply? Established norms do not always follow state practice, however, if state practice deviates from established universal norms, then state practice must change, and the offending state should subsequently be held accountable for such violations. Unfortunately, there has been a marked decrease in the respect of sovereignty and a failure to both respect and enforce this norm. This question is inextricably linked to the problem of dealing with transnational sub-state actors and the inability or lack of desire of certain “failed” states to exercise executive power within the confines of their own borders. “The principle of sovereignty lies at the heart of the safe haven challenge, defining how and when the US can legitimately target and destroy terrorists in foreign territory,” Peritz and Rosenbach point out.¹⁴⁸ This may not appear a significant problem, yet such unbridled disregard for national sovereignty touches

upon the very cornerstone of diplomacy and international law, regarding respect for the rights of nations, first established under the Peace of Westphalia in 1648. Simply put, how can one profess to defend the legitimacy of international laws and sanctions, while simultaneously contravening these selfsame principles?

The major problem here is one of increasing semantic and political manipulation. Through the application of a thin veneer proclaiming military intervention in the name of humanitarian relief operations, a false sense of legitimacy is afforded to governments, whose underlying concerns are in advancing their own vested national interests, while conveniently overlooking the Just War principle of last resort. According to the literature and current perceptions, last resort is seen as a later development—a non-predominant feature—and was not one of the cornerstones of Just War Theory.¹⁴⁹ Writing for the Brookings Institute, Roberta Cohen, highlighted this move toward the diminished respect for sovereignty, in the face of humanitarian disasters. Cohen cited the example of, “former UN Secretary-General Javier Perez de Cuellar who made the observation in 1991, ‘We are clearly witnessing what is probably an irresistible shift in public attitudes towards the belief that the defense of the oppressed in the name of morality should prevail over frontiers and legal documents.’”¹⁵⁰ Granted this balance between the tensions of humanitarian relief and the respect of national sovereignty is a difficult one to strike. Increasingly, however, there has been a tendency to rely solely upon rapid military intervention as a “silver bullet” solution. Oftentimes, true humanitarian necessity comes as an afterthought, if at all. The failure to establish a meaningful civil society and the corresponding mismanagement in the wake of the incursion of Iraq, being a case in point.

Drones, in their relationship to the laws of war, are merely one symptom of a much larger problem. We are blinded by our own “brilliance” and are out of step with the reality of modern warfare.

We need to address and redefine the issues of sovereignty, targeted killing, the concept of imminence, and the use of multifaceted technology in warfare. Such a comprehensive restructuring of the traditional model would require monumental effort and willpower on the part of all states.

This is largely due to the unfortunate and inherent complexities of international relations (or the lack thereof, relations that is). The larger the group, the greater the divergence. Elshstain also concurs that “The fog of politics grows thicker and less penetrable when states whose cultures are alien to each other try to interact.”¹⁵¹ While this is one possible solution to creating a more balanced, legitimate and more humanitarian approach to modern warfare, the current power imbalance and a distinct lack of political willpower seem to preclude such changes, at least for the present.

Nevertheless, until the voices calling out in the wilderness are heeded, we shall face an erosion of legitimacy, increased chaos, and wide-spread anarchy. This topic, albeit worthy of serious research, is beyond the scope of this current work, which is limited to examining the use and limitations of UCAVS in relation to theoterrorism. Strong international condemnations combined with effective sanctions and commitment to enforce are the only response to unilateral violations. The essential point should be: *either the law is the law, equally applicable, for all or it is not the law for any.*

Barring a remodeling or restructuring of the current framework of international laws of war we are forced to seek alternative measures to address our immediate concerns. One positive, promising, and relatively painless proposal was presented recently by Amos Guiora, who proposed the establishment of a “drone court.” This would be structurally similar to the already existing courts established under the Federal Intelligence Security Act of 1978 (FISA, and related amendments) established for the authorization and oversight of electronic surveillance. The function of such a court would be the oversight and authorization of specifically designated targets for attack by drones. Such a mechanism would help enhance transparency and legitimacy in the eyes of the world and reduce much of the speculation and widespread condemnation to which the U.S. drone campaign is currently subjected. Additionally, such an institution would restore appropriate checks and balances which are currently missing.

As Guiora astutely points out, “...there would need to be significant restrictions on when targeted killings would be deemed justified, including narrow definitions of an imminent threat and legitimate target.”¹⁵² In a similar vein, Murphy and Radsan conclude, “... that under Boumediene, the executive has a due process obligation to develop fair, rational procedures for its use of targeted killing no matter whom it might be targeting anywhere in the world. To implement this duty, the executive should, following the lead of the Supreme Court of Israel (among others), require an independent, intra-executive investigation of any targeted killing by the CIA.”¹⁵³ We will examine this question in further detail in the body of this research. Comparatively, the proposal by Guiora, seems more ethically appealing, whereas the intra-executive arrangement advanced Murphy and Radsan, would leave itself open to manipulation and abuse from an already overly powerful and largely unfettered executive branch.

Concerning the establishment of the proposed drone court above, a few important factors need to be taken into consideration. First, while it is indeed an interesting and laudable project, which would ensure much-needed transparency, the proposed court as laid out by Guiora and Brand, would be constituted solely of US judges. The problem here is that the use of drones has taken on an international character and their armed interventions are rarely if ever conducted at the national level. Further, Blum and Heymann argue against the establishment of such a court on pragmatic grounds, “Such mechanisms need not involve external judicial review; judges are neither well situated nor do they have the requisite expertise to authorize or reject an operation on the basis of intelligence reports.”¹⁵⁴ Such assumption could, however, easily be overcome by having trained advisors inform the judiciary as to the pertinent facts involved and indicating the grounds for necessity. Additionally, this would offer a greater sense of legitimacy to the overall tactic when it is employed.

In such circumstances, the proposed court could serve as a safeguard against overreach and runaway decision-making which had been the wont of the previous administration’s executive branch. By the same token, it would, at the same time, overlook the rights of other states involved in the targeting process. The danger to the establishment of such a court is that it would necessarily have US interests at heart and would run the risk of being commandeered by the executive function much as drones themselves were.

Questions involving the legitimacy of the decision-making process concerning the targeting of foreign nationals and that of individual state sovereignty would need to be fully explored and addressed by such a court. Such a court, while it might serve, national interests, would perhaps fall short concerning the vested interests of other members of the international community. One possible solution to this would be to fold national drone courts into a more representative

international organization, such as the UN, or the ICJ (given US hostility toward the ICC). Such an international body could then be concerned not merely with aerial drones, but also serve as an ethical and judicial instrument for evaluating the legitimacy, use, and application of any robotic, or indeed any new weapons and intelligence gathering systems. Such a suggestion is, however, predicated upon the supposition that drone warfare takes on and bears the mantle of a national strategic approach to future conflict resolution.

One targeted, yet misplaced response prior to the Guiora and Brand proposal was advanced by Neal K. Katyal, in 2013, in *The New York Times* opinion section. Katyal, who successfully pleaded the *Hamdan v Rumsfeld* case (striking down President Bush's use of military tribunals in Guantanamo), suggested the same type of structural framework as that laid out by Guiora and Brandt, but housed directly within the executive branch itself. Such an imperceptive suggestion would miss the point. It would defeat the entire purpose of the proposal, by Guiora and Brand that of retaining autonomy from executive overreach. Both Guiora and Brand seem to have picked up on this shortcoming in their pertinent analysis.

Summary

The previous chapter was both exceedingly long and complex. I shall, therefore, attempt here to summarize the contents as clearly and succinctly as possible, highlighting the central points of these important themes. This chapter served as an introductory view, laying the foundations to the chapters which are to follow. We initially began the chapter by examining and discussing the four central motivations behind the adoption of robotic aircraft for targeted killing missions. These motivations consisted of the strategic and political aspects of drones and targeted killing;

the legal aspects; The economic components, and finally the ethical, moral, social, and psychological elements involved.

We examined the relative advantages and disadvantages of the use of robotic aircraft, or drones, from a purely political and strategic perspective. It was noted that when used as a constrained tactic, rather than a full-fledged strategy, that drones could serve as an effective response to asymmetric forces. We also recognized the danger of their alluring siren call, due to their expediency, lack of friendly casualties, and the possibility they afford for plausible deniability.

The topic of respect for sovereignty was broached and the balance between rights and responsibilities according to the international relations paradigm was also considered. We witnessed that the previous Obama administration had succumbed to the facility of selecting drones and targeted killing as their overarching strategy in response to terrorism. Far from curbing or stemming the tide of terrorism, they may have unwittingly contributed to its further spread.

A rather unique consideration was the introduction of the concept of the *drama of small numbers*. According to this view I proposed that smaller numbers of casualties were easier for the public to focus upon and relate to—on a personal and visceral level, rather than larger less impersonal events composed of nameless and featureless victims. Anyone who recalls the impact behind the now famous image of the Saigon chief of police, as he executed his handcuffed Vietcong prisoner, in 1968, will also recall that the image made a powerful contribution to ending that war. This example underscores both the power of the media to influence events and the drama of small numbers, regardless if those involved are innocent or guilty.

It became evident that the U.S. Government and the Obama administration, despite its international popularity, eventually came under fire for their increasing reliance upon employing drones as a strategy, rather than using them as they were intended to be used; as a tactic. In some respects, the reliance of drones played into the hands of the terrorists who were able to employ 4GW propaganda tactics and manipulate such strikes to their own benefit. Careful manipulation of numbers and images at frequently inaccessible target sites, were carefully diffused to depict exaggerated numbers of civilian casualties.

The complex legal issues, both under domestic and international law, surrounding the use of robotic warfare, were considered. We began the discussion with an examination of the now-flawed near certainty standard. We also saw that certain states had a Janus-faced nature or were duplicitous in their dealings. There was a striking contrast between what they stated and what they permitted behind the scenes. Part of the problem related to this duplicity was the fact that a good portion of the coalition intelligence, particularly human intelligence (HUMINT) was being transmitted by the host nations, and those nations had vested interests in the outcomes.

While legal constraints and the limits of enforcing international law remain weak and uncertain at best, there is nevertheless an interest, on the part of the states employing robotic warfare, to respect the law of armed conflict (LOAC) and attempt to do so in a responsible manner. Excessive or indiscriminate force would, at least theoretically, jeopardize their standing in the world community of nation states. Additionally, it would be extremely difficult for a country attempting to portray and instill democratic values, to thrive, were they not to adhere to such values themselves.

Many of the legal and strategic principles behind the combat against terrorism, targeted killing and the use of unmanned aerial vehicles were initially justified by the now time-worn AUMF agreement, which we briefly considered. The legal debate is one of the most complex and contentious issues concerning these developments and they are examined more fully in chapter VII. It was suggested that a newer, more radical approach to dealing with transnational armed conflict required new thinking and quite possible new legislation.

The economic facet of drone warfare was presented. Again, the advantages, or seeming advantages, and the disadvantages were presented and carefully weighed against one another. The economic element, it was explained, is closely related to Just-War Theory, since this aspect, by necessity, enters in the calculus of waging armed conflict. Force reductions and sequestration were considered, as were various strategies intended to balance the research and development (R&D) costs of robotic research. Sales to foreign countries, one possible solution, it was shown needs to be balanced by concerns for long term security.

The research delved into the convoluted aspects of the ethical, moral, social and psychological perspectives involved in the long-standing conflict against terror. We began this segment by examining assassination and the ostensible public anathema towards that practice. It became apparent that any misgivings could, however, be easily and rapidly quashed and sacrificed in the name of expedience and under the guise of humanitarian intervention

The long-term and far reaching social and psychological effects of killing by distance were raised. We considered the work and contributions of Grossman. While, drones appeared to be an ideal and harmless solution, at least for those operating these machines, it soon became apparent

that there were many residual, unintended secondary effects which have only recently begun to manifest themselves.

In the segment Ethics, vs., Morals, vs., Ethics, the difference between morality and ethics was raised. While many scholars make no distinction between these two states, it was the opinion of the current research that there are indeed differences. Far from being a simple question of semantics, they do matter in influencing our perspective. We presented a model examining their similarity and their differences and this particularly as it related to the decision-making process. In a related vein, we discussed the increasingly common and misleading phenomenon of cultural relativism. The close relationship between ethics, morality and law was raised and fully examined.

The question of imprecision in targeting was brought up. The current situation is exceedingly unclear with parties on both sides of the debate declaring vast discrepancies in their findings. Many of the numbers reported by interested parties remain suspect. What was apparent is the fact that, given all possible alternatives the drone strikes are far more accurate and less damaging, overall, than any other weapons system currently employed. The only possible less lethal approach is, of course, direct military intervention. This is a less viable option, however, as it would inevitably result in unnecessary casualties, and reduce the possibility of success.

Related, to targeting precision, is the important question of collateral damage and the proportionality calculus. It was shown that by comparing various available weapons platforms that the drone is both stealthy and efficient in its conduct of combat missions. The fact is that any lack of precision in targeting is more likely due to ancillary considerations such as a failure of intelligence, rather than the fault of the weapons system itself. We saw that given the pressing

need for introducing these robotic weapons in service that the shortcomings had to be coped with as an evolutionary process. This technological evolution is complimented by constant enhancements and improvements in avionics, optics, and missile guidance systems. This has led to even greater efficiency and precision.

. There are some scholars and jurist who consider the drone as a unique phenomenon changing the actual face of modern warfare, while others, this research included, consider them as merely another military weapons system. Despite such observations, their employment is but one facet of a new type of warfare, a type labeled fourth generation warfare or 4GW by Thomas X. Hammes. It is precisely this multivariate phenomenon, which requires reordering and regulation through the means of new and improved legislation. It may seem contradictory at first blush to declare these robotic systems as tactical weapons platforms and then turn around and call for them to be regulated. Clarification is therefore required. Such proposed regulation is geared toward a host concerns outside the actual theatres of military operations.

The question of collateral damage and noncombatant deaths was discussed. We learned that while regrettable, noncombatant deaths are, and have always been a part of the “fog of war.” While everything must be done to avoid and ensure that civilian casualties are not excessive, in comparison with military advantage gained. According to international humanitarian law, that calculus and the ultimate decision-making, however, rests firmly with the commander in the field. It was pointed out that the figures, concerning noncombatant casualties, being bandied about are often suspect and can even be manipulated to support any number of agendas.

The small segment, “Boots on the Ground,” relating to service in the combat zones of Iraq and Afghanistan were intended to contribute a “downrange” perspective. The reality of being in

a war zone tends to provide a firsthand understanding of many of the ideas and topics that are being discussed. Being caught up in the clutches of an armed conflict one quickly realizes that it is a messy dirty business and there is little place or time for indulgence in misplaced rhetoric when survival is at stake.

In the section relating to assassination, treachery and perfidy, consideration was given to the historical foundations and associated legislation. The various strength of the various normative proscriptions against such practices were examined. We learned that what had once been a strong norm against the practice of assassination, may have in fact weakened.

The final section of this chapter dealt with striking a balance. This balance refers to several different aspects of armed conflict, national security, and geopolitical relations. The balance, in question, focused upon the tensions between the rights of state self-defense and military intervention, but also the balance between individual freedoms and the maintenance of national security imperatives. We spoke of the measured restraint required between the alternatives for conflict resolution. One of the core hypotheses of this research was reiterated; that the seductive allure provided by robotic warfare will continue to override and erode the resort to other, less reactive forms of conflict resolution. The balance between the rights and responsibilities relating to national sovereignty were examined as were the eventual consequences of the unjustified breach of those rights. The phenomenon of humanitarian intervention was analyzed. The danger that interventions in the name of humanitarian assistance might serve to circumvent the restrictions of Article 2(4) of the U.N. Charter were also evaluated. In other words, there is a clear and present danger that states might adopt humanitarian aid as a cover for advancing national interests.

Part of the equation in striking a reasonable balance, regarding the resort to armed conflict, resides in the very real need to address and redefine the issues of sovereignty, targeted killing, the concept of imminence, the use of multifaceted technology in warfare. It was posited that, strong international condemnations combined with effective sanctions and commitment to enforce are the only response to unilateral violations. A fundamental consideration was that: *either the law is the law, equally applicable, for all or it is not the law for any.*

The promising model for creating a "drone court," at the national level, was proposed by both Guiroa and Brand. The advantages, disadvantages and problems associated with establishing such an institution were presented for scrutiny. It was pointed out that one of the most significant problems facing the establishment of such a court would be the safeguards guaranteeing its autonomy from executive overreach.

Chapter IV

“Never think that war, no matter how necessary, nor how justified, is not a crime.”

— Ernest Hemingway . Introduction "*Treasury for the Free World*" by Ben Raeburn. (1946).

“The question is not its success—it is its lawfulness.”

—Kenneth Anderson, *Congressional testimony*, 2010

LEGAL CONSIDERATIONS

Rules, Regulations and Guidelines

Regardless the legal perspective adhered to, or particular position adopted, in regard to the law, the assertion advanced by Stephen C. Neff that war and law have always exercised a reciprocal influence upon one another, remains perhaps one of the few uncontested and enduring facts relating to that unique partnership.¹⁵⁵ Once a thorough examination of the available literature has been completed, then the best elements from various poles can perhaps be melded into a more reasonable, cohesive and centralized approach for developing a deeper understanding and a more adequate application.

The following sections offer a deeper, more probing analysis and build upon previous, foundational insights. As discussed, there are many fundamental rules, regulations, and guidelines which apply to armed conflict in general. Despite these rules, there have been few

concrete precisions regarding the questions of transnational terrorism and semiautonomous aircraft; such as drones and unmanned systems. These international customary and conventional laws, regarding warfare, define the different reasons and justifications for commencing an armed conflict (*jus ad bellum*), the method in which that conflict is conducted once it has been initiated (*jus in bello*), as well as the aspects of conduct and responsibilities in a post-conflict environment (*jus post bellum*).

Within a legal context, as far as the use of drones is concerned, there exist two aspects that need to be considered. The first is *jus ad bellum* or the reasons and justifications for entering warfare. This concern only applies peripherally to drones when they are employed in a strategic sense. The second framework, which is more applicable, is the *jus in bello* humanitarian concept of how war is to be conducted. Of course, during the post-conflict phase, that of *jus post bellum*, the use of drones is of marginal concern. These two previous frameworks will be examined individually since each represents a unique school of thought separate from the other. It should be emphasized that the body of law relating to *jus ad bellum* principles have only very limited application concerning the types of armament employed, and these concerns are largely the domain of *jus in bello* and conventional law.

Worth noting also is the fact that both these bodies of international law are found as theoretical and philosophical foundations of the Just War Theory. It is therefore difficult to precisely define where the theory ends, and the law begins, except when the conflicts in question have been passed on judicially at the international level such as the well-documented cases of *Nicaragua v. U.S.*; *Uganda v. Congo*; and *Iran v. U.S.*

The Legal Framework

Mary Ellen O’Connell, however, contends that, “The view that the world does not have up-to-date rules for responding to terrorism and other contemporary challenges is simply incorrect.”¹⁵⁶

While this statement by O’Connell, may, in fact, be true, it is also somewhat misleading.

The world may indeed have rules concerning the use of force and the conduct of armed conflict; however, they are obsolete and ill-adapted to the current criteria of asymmetric warfare, transnational armed conflict, and transnational terrorism. They were initially designed to address a traditional model of organized state militaries in international armed conflict and were later amended, during the period of colonial struggles of independence, to incorporate non-international armed conflict (NIAC).

There do, in fact, exist specific laws and guidelines related to the concept of self-defense with regard to violent non-state actors. We shall examine these various guidelines, which will also be applicable, in varying degrees, to the question of targeted killing and the use of armed drones for the prosecution of legitimate targets. There are, nevertheless, several consistent and perplexing aspects relating to the application of these different legal principles and we shall examine these over the course of the following pages.

There are drastic differences in interpretation, which lead to widely varying perspectives; differences which are rarely resolved. Another significant hindrance, to the proper application of these laws, is the failure to obtain universal recognition, acceptance, adherence, and enforcement by all states

The lack of enforcement power is a significant hindrance to the effectiveness and legitimacy of the international legal regime.

Laws, treaties, and international covenants are important for establishing the foundations, which define international ethical and normative standards. Unfortunately, these conventions and treaties mean absolutely nothing if they are not backed by effective mechanisms of enforcement.

Elshtain cites the Soviet Union's continued biological weapons development—despite having signed the 1972 Biological Weapons Convention, as a prime example and rightly concedes, “The evidence by now is pretty clear that various treaties and conventions often provide a cover behind which determined states go forward with whatever they want to do.”¹⁵⁷ The same observation applies in regards to various resolutions passed by the United Nations Security Council, which are frequently violated or ignored completely.

One clear example was the passage of Resolutions 1054 (April 26, 1996) and 1070 (August 16, 1996),¹⁵⁸ in response to an assassination attempt on President Hosni Mubarak of Egypt. These resolutions were intended to apply strong pressure on Sudan, in response to harboring terrorists and sponsoring terrorist acts. Micha Zenko points out that while these specific Resolutions were intended to curb Sudanese behavior, they had absolutely no effect since few states bother to properly implement and respect them.¹⁵⁹ In addition to these previously cited examples, there is an extensive historical record of other well-documented violations. Anthony Clark Arend asserts that “Given this historical record of violations, it seems very difficult to conclude that the charter framework is truly controlling of state practice, and if it is not controlling, it cannot be considered to reflect existing international law.”¹⁶⁰ The logic associated with such an assertion raises a problem and needs to be nuanced. While there exists a penal code for theft, murder assault and so forth, these crimes continue to be perpetrated, however, few would consider suggesting that such laws be abolished. What Arend is really emphasizing here is the fact that the Charter framework is far less effective than we would like it to be.

Colonel Peter M. Cullen, another proponent for change, states that “The ongoing U.S. campaign against terrorism does not fit neatly into the existing system on the use of force in international law.”¹⁶¹ Fortunately, however, there exist many laws, guidelines, rules, and regulations which could serve as a springboard for the possible formation of newer and more serious protocols. These precepts are examined more closely in this research.

The current state of legal doctrine and the rapidly changing face of the globalized world, offer very little in the way of a clear and succinct definition, concerning the right to self-defense and the use of preemption, or first strike doctrine. “Nations perceive the threat of armed aggression differently, and international law has not attempted to codify precisely the circumstances that justify the use of force in self-defense,” comments Roger Scott.¹⁶² While the author makes a valid point, it also is somewhat misleading. There is an entire body of case law surrounding the use of force in self-defense. From customary law, such as the Carolina Case, to article 51 of the UN-Charter, self-defense and the use of force have been spelled out. The author is, however, correct that there is no uniform body of coherent law which addresses this subject and it remains a gray area which would benefit greatly from clarification, elucidation, and codification. The case law which does exist, both its application and shortcomings, is detailed in the following sections.

In terms of self-defense under international law, regarding the use of legitimate and justified force against the violent non-state actor, there are several protocols which constitute the current overarching legal framework. These include Articles 2(4), 39, 42, 51 of the UN-Charter; The Statute of the International Court of Justice, Article 38 (1) notably §§ b, d. We will examine those legal principles most applicable to the current research in greater detail, shortly.

International Law

There exist two bodies of law, which together constitute what is referred to as international law. A distinction is made between public international law, which refers to the law of nations and private international law, which refers to commercial affairs. Our focus is upon the former; public international law (PIL), also referred to as international law (IL). This latter terminology, that of international law, shall be adopted throughout this research.

IL is further subdivided into several other distinct bodies of law as well—including those of international criminal law, international human rights law, international refugee law, international environmental law, and international humanitarian law (IHL). International humanitarian law is also referred to as the law of armed conflict (LOAC), or more simply, the law of war. The International Red Cross (ICRC) also points out the core principle that “International humanitarian law, or *jus in bello*, is the law that governs the way in which warfare is conducted (my emphasis).”¹⁶³ Our focus shall be largely upon *customary and conventional law*, which together comprise IHL. The laws and rules encompassed under what is commonly referred to as international customary law, are separate and distinct from those of treaty law, or conventional law.

International law traces its philosophical and ethical origins back to the days of early Christian theologians, such as St. Ambrose, St. Augustine, and St. Thomas Aquinas. Their views having also been influenced by earlier Greek and Roman philosophers. Additionally, international law was further refined by later medieval scholars of renown such as Alberico Gentili, Balthasar de Ayala, and Hugo Grotius. Secularized international humanitarian law, was created from the earlier seeds of Christian moral thought. International humanitarian law (IHL),

or the law of war, a subset of international law, was further developed and refined through the customary practices and the subsequent creation of international treaties, such as the Peace of Westphalia of 1648 (the Treaties of Münster and Osnabrück), The Hague Treaties of (1899 & 1907) and the Geneva Conventions (1864, 1906, 1929, and 1949).

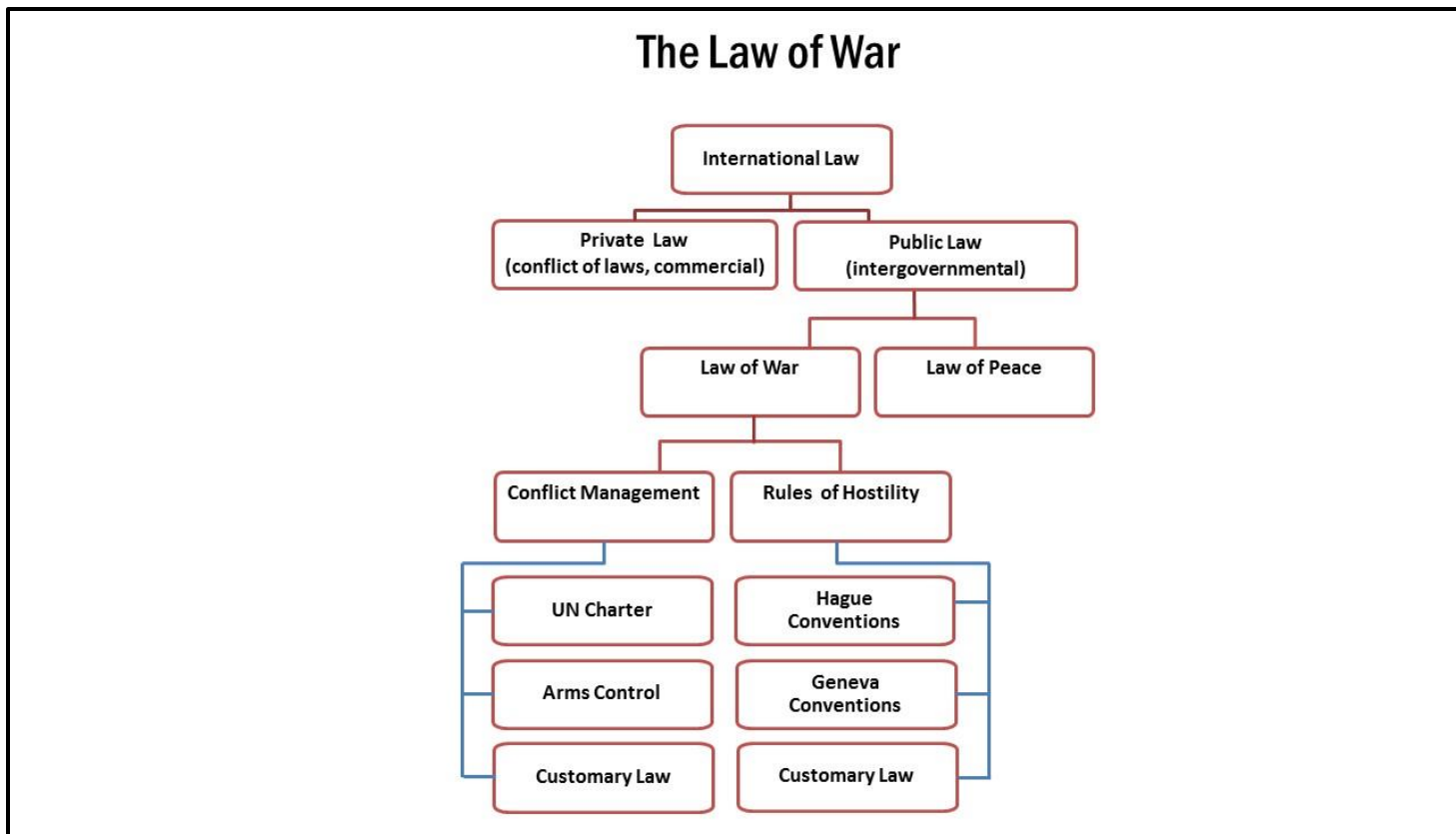
As far as the Additional Protocols I, II, (1977) and III (2005) of the Geneva Conventions are concerned, although they are in fact a part of international law, many states, such as the U.S., Israel, and much of Southeast Asia have failed ratify them are not party to them and are thus not bound by their terms. An important feature relating to human shielding (hostages) is addressed and terrorism may be found as a new addition within this Protocol. Specifically, Article 4(2) of Additional Protocol II, (Part II) of the section which deals with humane treatment clarifies that:

*Without prejudice to the generality of the foregoing, the following acts against the persons referred to in paragraph 1 are and shall remain prohibited at any time and in any place whatsoever: (a) Violence to the life, health and physical or mental well-being of persons, in particular murder as well as cruel treatment such as torture, mutilation or any form of corporal punishment; (b) Collective punishments; (c) Taking of hostages; (d) Acts of terrorism...*¹⁶⁴

Author Michael Byers, writing on the ethical aspects of warfare, began his interesting research with a rather inaccurate description relating to the regulating of armed conflict. The author rather misleadingly states that “Historically speaking, legal rules on the use of military force are a relatively recent development. Prior to the adoption of the UN-Charter in 1945, international law was conceived in strictly consensual terms during the nineteenth and early twentieth

centuries: countries were only bound by those rules to which they had agreed, either through the conclusion of a treaty or through a consistent pattern of behavior that, over time gave rise to what is referred to as ‘customary international law.’”¹⁶⁵ Strictly speaking, this is not entirely correct, since there were many other precedents that had already set the stage for the codification of the laws of war, notably: The Lieber code of 1863, The Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field first adopted in 1864, and later amended and replaced by the versions of 1906 and 1929 before arriving at its final form in 1949; The Hague Conventions of 1899 and 1907 (which in fact form one half of IHL), the Saint. Petersburg Declaration of 1868, renouncing the use of explosive projectiles under 400grams, and so on. Thus, it is understandable, if somewhat misleading to assume that the UN charter, while significant, represented a watershed of unparalleled historic proportions.

Below is a schematic depiction drawn and developed from the most recent version of the U.S. Army Judge Advocate General’s Law of Armed Conflict DESKBOOK, as it is presented and taught to military lawyers. It is immediately apparent that The Hague Conventions, customary law, and the Geneva Conventions, play a major role in shaping policy and determining the conduct of armed conflict with respect to the armed forces of the United States.



Fashioned after: Di Meglio J.A., LTC Richard P, et al. *Law of Armed Conflict Deskbook: 2012*. Edited by MAJ William J. Johnson, & MAJ Andrew D. Gillman. Charlottesville, Virginia: International and Operational Law Department. The United States Army Judge Advocate General's Legal Center and School, 2014. (Based upon and modified from the original).

Figure 2 © James P. Welch 2018.

International customary law, itself, like many other facets of law and ethics, is widely disputed concerning its precise composition, however, it is generally accepted that it is composed of two parts. The first is consistent state practice while the second, *opinio juris*¹⁶⁶ is the consideration by the state that is bound or obligated to adherence. The psychological component involved in *opinio juris* includes a rational evaluation of the risks and benefits. This can also be termed as psychological compliance and as Janina Dill so aptly asserted in her work, “Compliance is a necessary but not a sufficient condition of IL’s [international law’s] effectiveness.”¹⁶⁷

Additionally, there is a distinct difference, that is not immediately obvious, that needs to be

considered; the difference between this sense of obligation and the underlying normative desires. They are two entirely different constructs. It does not automatically follow, for instance, that the *requirement* to behave in a certain way is founded upon a *desire* to do so.¹⁶⁸ Thus, we see that there exist psychologically constraining obligations relating to *opinio juris*.

According to the International Court of Justice (ICJ), the definition of customary international law is laid out in Chapter 1, Article 38(1)(b) which describes it as "evidence of a general practice accepted as law."¹⁶⁹ Which stipulates:

1. The Court, whose function is to decide in accordance with international law such disputes as are submitted to it, shall apply:
 - a. international conventions, whether general or particular, establishing rules expressly recognized by the contesting states [invoking the legal principle of *pacta sunt servanda*];
 - b. international custom, as evidence of a general practice accepted as law;
 - c. the general principles of law recognized by civilized nations;
 - d. subject to the provisions of Article 59, judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.¹⁷⁰

These customary "laws" most often become legitimized through *lex scripta* or conventional law (treaty law)—the establishment of international treaties and protocols, (governed by the Vienna Convention on the Law of Treaties, May 23, 1969), but also by persistent practice and implementation. It is important to point out, however, that customary law and conventional law

should not be considered identical. The further we move away from conventional law and written instruments the weaker the application and the adherence becomes.

Anthony Clark Arend confirms that the validation of customary law occurs with the convergence of practice and acceptance as a defining rule, “...when there was both a near universal practice and a belief that the practice was required by law.”¹⁷¹ David Jayne Hill writing in the introduction to the 1901 translated edition of Hugo Grotius’s *Rights of War and Peace* also underscores this vision of the concept of state practice, “There are CUSTOMS of nations as well as a universally accepted law of nature, and it is in this growth of practically recognized rules of procedure that we trace the evolution of law international—*jus inter gentes*—as a body of positive jurisprudence.”¹⁷² One core problem with these rules is that they were originally designed for traditional international warfare between states, and limited or no provisions to address contemporary conflicts, such as warfare that is conducted in the military, religious, political and economic spheres simultaneously by transnational non-state actors (often referred to as fourth generation warfare (4GW,)).¹⁷³ To compound matters even further, there exists a tension between the rights of states under said customary law, concerning the right to state self-defense, and the limitations imposed by treaty law such as that ensconced within Article 51 of the UN-Charter.

Orakhelashvili underscores the ongoing critical debate that still rages between the reciprocity of conventional and customary law in international application. The two bodies have much in common and are not mutually incompatible by any means. Orakhelashvili, masterfully analyzes the essential parameters of the debate involving the important question: “does custom equal consent, and if it does is it therefore binding upon third-party States?” In other words, is tacit consent, in this application, tantamount to explicit consent? While this view was certainly a

“customary” view (as per Wolff and Grotius) in the Medieval period, it appears to be far less so today.¹⁷⁴

Since customary law is often considered a process of evolutionary adaptation, what then is the status of State practice as a form of consent? Orakhelashvili provides a possible response here as well, with the astute observation that “Action can be conscious whether it manifests that consciousness expressly or by conduct.”¹⁷⁵ In other words, quite simply and quite appropriately, “actions speak louder than words.” This is certainly the essence inferred in the text of ICJ Article 38 (1) (b). The author relies upon classical doctrinal support provided by authors such as Vattel and Wolff in support of this view, which appears well founded.

There is a caveat, however, and that is that practice by itself, does not automatically correspond, with customary law, it requires its *opinio juris* counterpart as well. Much like the war of ideas, customary international law also contains both a kinetic and a psychological component. Fitzmaurice (as cited in Orakhelashvili), also emphasizes the important point, according to his interpretation, that to tolerate is to accept. Of course, an obvious difficulty with passive acceptance is the actual evidence confirming such unexpressed acceptance.

In a unipolar world, where the U.S. exerts such a powerful military influence, despite the objections of other States (as was the case if the 2003 invasion of Iraq) can we still rely upon custom (i.e., State practice) as a binding instrument of international law? Does tacit acquiescence automatically signify acceptance? Is tactic or passive recognition still legitimate if it is borne of coercion (economic, political or military)? Relying merely upon conventional law raises the obvious specter of selective interpretation. Thus, there is a pressing need to determine and qualify an answer to these probing questions of validity, consent, and application.

The important case law underlying the rulings in *Nicaragua v. U.S.*; *Uganda v. Congo*, and *Iran v. U.S.*, are examples of the application of conventional law in questions of a state's right (or the lack thereof) to self-defense under the international legal order. When considering the second half of international law, that of conventional or treaty law, it might seem that, since this body of law is based upon written instruments of agreement, things should be much more clearly defined. There exist, nonetheless, some formidable challenges which must be considered. The first obstacle is one of *application* and arises under two legal principles: the *pacta sunt servanda* principle, indicating that treaties must be respected and the *pacta tertiis nec nocent nec prosunt* rule, which is the fundamental legal principle that there is no *erga omnes* requirement upon third-party States—treaties neither impose rights nor obligations upon third-parties (who have not consented to them), according to this rule of law. In other words, if a State is not a signatory to an agreement or treaty, they are not bound by it.

The only exception to this rule is that of peremptory norms, or *jus cogens*, Latin for compelling law (in cases such as, piracy, genocide, slavery, torture...), which is indeed *erga omnes*—incumbent upon all persons. A violation of these principles is considered as *malum in se*, or evil in and of itself, in contrast to *mala prohibita*, conduct that constitutes an act that is unlawful only by virtue of statute. There does exist, however, another exception to the *pacta tertiis* principle.

Kelsen also points out that “general multilateral treaties to which the overwhelming majority of the states are contracting parties, and which aim at an international order of the world” are exceptions to the *pacta tertiis* rule”¹⁷⁶ Rafael Nieto-Navia, relying upon Article 38 of the Vienna Convention,¹⁷⁷ echoes Kelsen's earlier assertion “However it can be noted that if a treaty or convention simply codifies existing norms which are already binding on States as customary

international law, States not party to the convention or treaty in question may nevertheless find that they remain bound by the terms of the relevant customary law principle.”¹⁷⁸ Thus, in essence, they are bound by the underlying principle, rather than the specific conventional instrument it engenders.

The second major challenge to conventional law is one of *interpretation*. It has been reiterated several times throughout this research, that it is a characteristic of law, and its attendant legal instruments, to be flexible in nature and to allow a certain degree of discretion in its interpretation. This enables the law to take into consideration exceptions for unforeseen circumstances and tailor it to a more just application. Thus, a strict textual adherence to an agreement or treaty often creates direct tension with a looser (spirit of the law) purposive interpretation. Conflict arises when these different interpretations clash head-on, often with completely opposite readings. This is the basis of the complex and long-running debate between advocates and critics of comparative interpretations of the UN Charter Articles 2(4) and 51.

The Law of War and the Concept of Self-defense

We have spoken about Just War Theory as an ethical precept. We shall now consider how it was modeled and adapted to the legal framework of international law. Customary ethical principles and their subsequent adoption in thought and practice, often become the guidelines to the framing of conventional law. This pertains to both customary international law—through state practice and *opinio juris* (a subjective sense of psychological obligation on the part of the state), as well as in positive conventional law (written treaties, conventions, and protocols). The legal principles, relating to the concept of self-defense against violent non-state actors, derive from *jus ad bellum criteria*—that is the legal reasons for going to war.

Thus, if we are to conduct war against groups such as transnational terrorists, the rules which apply are drawn from the *jus ad bellum* model. The related questions of State-sponsored self-defense and the debate revolving around Articles 2(4) and Article 51 of the U.N. Charter, also pertain to the realm of *jus ad bellum*. The most important rule of *ius ad bellum* is art. 2 par. 4 of the UN-Charter, which contains the prohibition on the use of armed force. In order to understand the current legal regime regarding the use of force we must take a closer look at the UN-Charter

The UN Charter and the Use of Force

Crucial for the interpretation of the provisions of the UN Charter is recognizing that the **drafters** aimed, above all, to prevent the use of unilateral military force internationally. This is specifically addressed in Article 2, paragraph 4, while Article 2, paragraph 3 demands that member states settle their international disputes peacefully. Although some in the past have tried to interpret Article 2 paragraph 4 to state that certain instances and forms of force are exceptions – e.g., when force is used to protect human rights -- it is generally assumed to forbid all uses of force, and for whatever reason.¹⁷⁹ It follows, then, that every use of force against another state or its territory falls within the ban on violence, and is only permissible when an internationally recognized justification vindicates its use, and the conditions for exercising such force are fulfilled.

According to the Charter, currently there are two situations in which force can be justified: The Security Council can decide to authorize military action (article 42)¹⁸⁰, and a state may execute military actions in exercise of the right of individual or collective self-defence in the event of an armed attack (art. 51).

To begin with the first situation: Article 39 of the Charter requires the Security Council to determine the existence of a threat to the peace, breach of the peace, or act of aggression, and on those grounds to make recommendations, or decide on the enforcement measures of article 41 (non-military coercive measures like economic sanctions) and article 42 (military enforcement measures). The “peace” referred to here concerns exclusively international peace; purely internal conflicts, such as those during NIAC do not apply.¹⁸¹

The second permissible use of force under the Charter occurs when states, either individually or collectively, take military action in response to an armed attack (article 51). The Charter fails to define what an “armed attack” specifically consists of, however, and neglects further to outline or specify from whom it must come. But before we examine this question more thoroughly, a few statements have to be made about the relationship between article 51 and article 2, paragraph 4 of the Charter.

The relationship between article 51 and Article 2(4)

Article 2, paragraph 4 of the UN Charter reads: *“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 manner inconsistent with the Purposes of the United Nations.”*

A reading of Article 2 paragraph 4 indicates, then, that not every breach of the ban on force automatically triggers the right of self-defence. In fact, the phrase “armed attack” is a more limited term than the phrase “threat or use of force.” Consequently, a state that is the victim of

force which cannot be qualified as an armed attack cannot claim a right of self-defence, and so may not react militarily, as this would entail a breach of the rule forbidding the use of force. But does the state that is the victim of the use of force therefore stand empty-handed? Not entirely; non-armed countermeasures are available when international obligations are violated.¹⁸² But these measures, used as a response to the use of force, often are not effective.

Though at first glance, this outcome appears undesirable, it's more understandable if one bears in mind that the most important purpose of the Charter is the maintenance of international peace and security (article 1, paragraph 1 UN-Charter), and that achieving this, demands that unilateral uses of force be strictly avoided. In other words, in the absence of an actual armed attack, states are to avoid using force in self-defence. *In addition to the afore mentioned non-armed countermeasures, a state can only request the Security Council to determine the use of force of whom it was a victim as a breach of the peace or threat to the peace and to take measures according to articles 41 or 42.* Should the Security Council refuse, however, then indeed the state stands without recourse. But even when there is an armed attack in the sense of the meaning of article 51, the right of self-defence is not unconditional. Any use of force in self-defence must be both necessary and proportional; moreover, the attacked state must report all self-defensive actions to the Security Council and be prepared to cease and desist in all such actions if the Security Council itself takes measures to restore and maintain international peace and security.¹⁸³

Armed attack

It seems obvious that the definition of the term “armed attack” as given in Article 51 would determine the extent and reach of the right of self-defence; that is, the more extensive this term is

interpreted , the sooner the use of force in self-defence is legally justified, while, by contrast, a narrow interpretation would likely result in greater reluctance and hesitation to approve such self-defensive measures. The critical importance of arriving at an unequivocal, unambiguous interpretation of the term “armed attack” hence can hardly be overstated. And yet, the term is not defined anywhere in the UN Charter. At most, one can, on the basis of systematic or teleological methods of interpretation, assume that the Charter takes a narrow interpretation of the term, since the highest purpose of the Charter itself is to maintain international peace and security and the instrument to achieve this is collective action, i.e. action by the Security Council under Chapter VII of the Charter. The right of self-defence thus forms an exception to the basic assumption that the use of force is not allowed in interstate relations, and therefore must be subject to restrictive interpretation. The fact remains, however, that the lack of a definition leaves crucial uncertainties about the precise scope of the concept. And a study of the *travaux préparatoires* or legislative history brings us no further in this respect.¹⁸⁴

Although the International Court of Justice (ICJ), as the highest judicial authority, has not defined the term either, it has spelled out its essence in the *Nicaragua Case*. The Court distinguished between direct and indirect armed force, noting that both can, under certain circumstances, qualify as “armed attack.” “Direct force” involves the use of violence by one state against the other, across borders – for instance, when an army invades the borders of another state. “Indirect force” describes non-state international violence, such as by mercenaries or insurgents with substantive involvement of the state. Whether such an indirect use of force can be considered an “armed attack” would depend, however, on the “scale and effects” of that force. A “border incident”, for instance, would not be sufficiently egregious to qualify as an “armed

attack.” Given that the outlines provided by the Court remain the deciding factor in determining an “armed attack,” the relevant passage is cited in its entirety.

*“There appears now to be general agreement on the nature of the acts which can be treated as constituting armed attacks. In particular, it may be including not merely action by regular armed forces across an international border, but also ‘the sending by or on behalf of a State of armed bands, groups, irregulars or mercenaries, which carry out acts of armed force **of such gravity** as to amount to (inter alia) an actual armed attack conducted by regular forces, or ‘its substantial involvement therein,’ This description, contained in Article 3, paragraph (g) of the Definition of aggression annexed to General Assembly resolution 3314 (XXIX)), may be taken to reflect customary international law. The Court sees no reason to deny that, in customary law, the prohibition of armed attacks may apply to the sending by a State of armed bands to the territory of another State, if such an operation because of its **scale and effects**, would have been classified as an armed attack rather than as a mere frontier incident had it been carried out by regular forces. But the Court does not believe that the concept of ‘armed attack’ includes not only acts by armed bands **where such acts occur on a significant scale** but also assistance to rebels in the form of the provision of weapons or logistical or other support. Such assistance may be regarded as a threat or use of force, or amount to intervention in the internal or external affairs of other States.’”¹⁸⁵*

Based on the above stated vision of the Court, we can answer our two-part question – when can we speak of “armed attack” and who can be considered the source – as follows: non-state actors such as terrorist groups can also be named as the perpetrator of an armed attack, creating the right of the victim state to act in self-defence. Two conditions, however, are here required: first,

the attack must involve significant or serious uses of force; a border incident or incidental armed action is not sufficient. Second, the terrorist group must perform its acts through or in the name of the state, or the state must be substantially involved in its violent actions. However, “substantial involvement” requires more than the provision of weapons, logistical support, or other forms of help. Rather, on the basis of the Court’s analysis, the right of self-defence against the use of **force** by a terrorist group exists only if the attack is serious enough to be considered an “armed attack”, and (cumulative) the state from whose territory the terrorist group operates has been substantially involved in the attack itself.

In this regard, the following two questions represent the deciding factors: can a terrorist attack be qualified as an armed attack, and what must be understood by “substantial involvement”? To begin with the former: since the attacks of 9/11, it has been generally accepted that the right of self-defence can be applicable in case of a terrorist attack. Days after these attacks, the Security Council adopted Resolution 1368, wherein it declared itself committed “to combat by all means threats to international peace and security caused by terrorist acts, recognizing the inherent right of individual or collective self-defence in accordance with the Charter.” Although the Council did not explicitly declare the 9/11 attacks “armed attacks,” the fact that it determined that the right of self-defence applied indicates, at least, that they could be viewed as such.

The question then remains whether less destructive attacks than those of 9/11 can also be considered as such. But here, much would depend on the facts and circumstances of each case. Wettberg, in his paper, discusses a criterion of “severe quantitative gravity.”¹⁸⁶ In this context, it is worth noting a few things about the so-called “pin-prick theory” or “accumulation of events” doctrine.¹⁸⁷ Where a single border incident or minor use of force cannot be considered an armed

attack, the question remains whether the term can be said to apply to a combination of several such incidents, or to an accumulation of several such attacks over time. In other words, when Hezbollah continuously, day in and day out, fires rockets into Israel, can this series of smaller attacks cumulatively be called an “armed attack”? This question is also known as the “accumulation of events” doctrine, or “zoom theory.”¹⁸⁸ By “zooming out” from a particular violent incident to all incidents a pattern of attacks appears that, by dint of their cumulative effect, can also be seen as “armed attacks.” In the Oil Platforms Case, for instance, the International Court left this possibility open when it determined that:

*“[...] the question is whether that attack, either in itself **or in combination** with the rest of the ‘series of attacks’ cited by the United States, can be categorized as an ‘armed attack’ on the United States justifying self-defence [...] Even **taken cumulatively** [...], these incidents do not seem to the Court to constitute an armed attack on the United States.”¹⁸⁹ (Emphasis mine.)*

This analysis seems to indicate that smaller attacks over the course of time, in separate places, can still cumulatively constitute an “armed attack.” At the same time, some paragraphs later, the Court adds that it “does not exclude the possibility that the mining of a single military vessel might be sufficient to bring into play the ‘inherent right of self-defence’¹⁹⁰ – a statement that seems at first glance contradictory in relation to its earlier one. However, if this is indeed the case, then a fortiori it would be true as well in the event of a terrorist attack of the caliber of 9/11. Zemanek concludes also that “regardless of the dispute over degrees in the use of force, or over the quantifiability of victims and damage, or over harmful intentions, an armed attack even when it consists of a single incident, which leads to a considerable loss of life and extensive

destruction of property, is of sufficient gravity to be considered an ‘armed attack’ in the sense of Art. 51 [of the] UN Charter.”¹⁹¹

Hence the first part of the question – when can we speak of an “armed attack”? – is the least problematic. Terrorist attacks can be considered as such as long as they cause a large number of victims and great material damage. But to claim the right of self-defence, the attack must not only be a sufficient serious attack, but also the state from whose territory the attack was organized must be substantially involved in the incident.

Determining “substantial involvement”, however, is more difficult. The ICJ gives only a negative description of the term by indicating only what it is not. In answer to the question of whether the United States could be held responsible for the actions of the “contras” – armed opposition groups who, supported by the CIA, worked to overthrow the (Soviet-allied) Sandinista regime – the Court determined explicitly that *“the question of the **degree of control** of the contras by the United States Government is relevant to the claim of Nicaragua attributing responsibility to the United States for activities of the contras whereby the United States has, it is alleged, violated an obligation of international law not to kill, wound or kidnap citizens in Nicaragua. [...]*¹⁹²

*The Court has taken the view that United States participation, even preponderant or decisive, in the financing, organizing, training, supplying and equipping of the contras, the selection of its military and paramilitary targets, and the planning of the whole of its operation, is **still insufficient in itself**, [...], for the purpose of **attributing** to the United States the acts committed by the contras in the course of their military or paramilitary operations in Nicaragua.[...] For this conduct [i.e. killing, wounding and kidnapping, J.W.] to give rise to legal responsibility of*

*the United States it would in principle have to be proved that that State had **effective control** of the military or paramilitary operations **in the course of which** the alleged violations were committed.”¹⁹³*

Although the Court did not actually address the issue of self-defence measures taken in response to violence perpetrated by non-state groups, it did examine the question of whether certain measures taken by the contras could be attributed to the United States, thereby allowing Nicaragua to hold the US responsible for violating its obligations under human rights and humanitarian law. This “effective control” test has since served as a general standard for establishing responsibility of private persons or groups.

While the Court did not further explicate the criterion of “effective control,” the cited passage suggests that such control involves a form of concrete leadership, management, or control over the specific operation or actions for which responsibility is being claimed. In Article 8 of the Articles of State Responsibility the “effective control” test is codified thus:

“The conduct of a person or group of persons shall be considered an act of a State under international law if the person or group of persons is in fact acting under the instructions of, or under the direction or control of that State in carrying out the conduct.”¹⁹⁴

In its commentary, the International Law Commission emphasized that the issue must involve a “real link” between the state and non-state actor¹⁹⁵ that involves actions taken “on the instructions of” or “under the direction or control” of the State.¹⁹⁶ These are alternative criteria: it is sufficient when one or the other of these is fulfilled.¹⁹⁷ Despite the fact that numerous judges, in their dissents, criticized the Court for the criteria it established for “effective control,” arguing

that it (in their eyes) placed the threshold for responsibility far too high, the Court nonetheless continued to hold to the standard in subsequent decisions.¹⁹⁸

Criticism grew louder, however, after the attacks of 9/11. The most important concerns expressed against the decision of the Court argued that it constituted a free license to so-called “state-sponsored terrorism” so long as the sponsoring did not take the form of “effective control.” Moreover, the imperative of a “real link” between the state and non-state actor would offer no solutions in the case of states that were neither prepared nor in a position to control operations by terrorist groups operating within (or from within) their borders. In other words, the “effective control test” provides no answers in three important situations: when a strong state supports terrorist groups but is not directly involved with its terrorist activities; when a weak or failing state is unable to prevent attacks by (organized) terrorist groups from its territory; and, finally, the situations in which a non-failing state passively supports or tolerates the operations of terrorist groups who are based within its borders.

It is precisely in this context of terrorism that abandonment of the “effective control test” is pleaded for. Two distinct approaches to this have been raised. The first still requires that a link can be established between the state and the non-state actor -- that is, that the behavior of the non-state actor has to be attributed to the state against whom the attacked state engages in self-defence. However, the bar for establishing attribution must be significantly lowered. In the second case, the “link” issue is discarded entirely, and considerations based on the nature and magnitude of the attack determine whether or not self-defence can be justified. In other words, when “private violence” is measurably severe enough to be viewed as an armed attack, the attacked party maintains the right to act in self-defence.

Finally, based upon the principle of consent and collective self-defense, the use of force is authorized by a request for intervention another state (the host state). Such conditions are meant to reduce the chances of resorting to armed conflict except in cases of justifiable need. They are considered as exceptions to the constraints on the use of armed force against the territorial integrity or political independence of another state. These legal requirements are important and have been reiterated several times throughout the text.

Recent history has shown that adherence to either or both principles has been weakened and even disregarded. The U.S. invasion of Iraq, in 2003 is but one example where the opinion of the international community exercised no significant authority. This situation again offers support for the position advanced in this research; that the current outmoded rules, laws, and regulations are improperly suited to deal with this new type of armed conflict and the specific challenges that it poses. The few attempts that have been made are poorly designed. They are not respected or enforced even when they are clearly applicable. Additionally, it should be born in mind that the decision-making process of the UNSC is controlled by major Westernized industrial states, creating for all intents and purposes a self-interested oligarchy.

It is important not to conflate the legal reasoning behind *jus ad bellum* with its ethical and philosophical counterpart. There has been an increasing tendency to blur the borders between the two, particularly since both contain the principles of necessity and proportionality as components central to their framework. Legally, the right to use justified force in self-defense is defined according to a specific set of binding conditions.

Jus ad bellum is strongly axed upon the crimes of aggression, and warfare for expansion. Crimes which were condemned during the Nuremberg and Tokyo Tribunal proceedings.

Aggression includes invasion, armed attack, blockades, bombardment, the sending of armed bands, irregulars or mercenaries on behalf of a State, the list being non-exhaustive (Article 2).¹⁹⁹

. **Article 2(4) versus Article 51: Between a Rock and a Hard Place**²⁰⁰

"The existence of law is one thing; its merit or demerit is another."

—John Austen, *The Province of Jurisprudence Determined* (1832).²⁰¹

There have been several interpretations of these two related articles of UN charter, particularly the relationship between Articles 2(4) and 51. These positions have tended to rely either on a flexible, purposive interpretation, or alternatively, a more restrictive one. Given the unusual threat that non-state actor aggression poses, many have pleaded in favor of a looser reading of the applicable articles (particularly pertaining to Article 51), including a right for anticipatory self-defense (also rather pejoratively referred to by some as preemptive strikes).²⁰²

The obvious danger of such flexibility is increased and unjustified conflict through manipulation of the concept of imminence. International law cannot and must not be adjusted to suit a political agenda, the result would be the failure of the rule of law itself and ultimately, total anarchy under unipolar military domination. It was creative interpretation and clever manipulation of this condition—that of a presumed imminent threat, which allowed the Obama executive branch to squeak its way through to its own advantage in the case of Iraq, Syria, Libya, Yemen and elsewhere.

There is a significant lack of clarity related to differences of interpretation, between the above two articles, particularly as they relate to the legitimacy of preemptive intervention. This section evaluates this contentious debate. A separate section dealing with questions of sovereignty,

imminence, and preemptive self-defense will follow. This tension has arisen and been fostered by the comparative interpretation of Articles 2(4) and Article 51 of the UN Charter, though this was never the original intent of the instruments.

Suffice it to say that there is a constant, long-running, and heated debate over the exact interpretation of Articles 2(4) and 51 and their application to armed intervention; particularly as they pertain to anticipatory and preventative attacks. The critics call for restraint and adherence to a more literal interpretation, while proponents plead for a more expansive one. Somewhere, midway along this contentious continuum are situated the more balanced and limited narratives of those caught in-between.

This inherent lack of clarity and precision is also noted in the JAG officers LOAC Desk Book, Chapter 4, which importantly points out that:

“The use of the term “armed attack” leads some to interpret article [Sic] 51 as requiring a state to first suffer a completed attack before responding in self-defense. This is likely the cause of much of the debate between the restrictive approach and the expansive approach. However, the French version of the Charter uses the term aggression armée, which translates to “armed aggression” and is amenable to a broader interpretation in terms of authorizing anticipatory self-defense.²⁰³ Orakhelashvili points out that, “The right to self-defence is also denoted as an inherent right in English text of Article 51 of the UN Charter and as a natural right in the French text.”²⁰⁴

Examining the question more closely, it is apparent that the difference between the traditional state-to-state conflicts of the past, and present-day asymmetric confrontations, has been further complicated by the introduction of two unforeseen and diametrically opposed—yet, by the same

token, inherently linked—elements; that of advanced technology in the battlespace and the advent of the violent non-state actor as a full-fledged military entity. Some authors such as Michael Walzer and Brian Orend have argued that preemption or anticipatory self-defense, is acceptable under situations they classify as supreme emergencies. a *doctrine* in the case of Walzer and an *exemption* for Orend.²⁰⁵ In either case this exemption stands as a last resort measure when the state faces catastrophic defeat. Furthermore, not only would preemption be acceptable but for some, the laws of war might also be suspended particularly as they relate to *jus in bello* ethics.²⁰⁶ That brings us to the next section on anticipatory self-defence.

Leo Van Den Hole offers a very thorough treatment of the critical question of anticipatory self-defense and its relationship to article 51 of the UN Charter, in his probing study, *Anticipatory Self-Defence under International Law*. Van Den Hole argues that article 51 was never intended to be restrictive regarding the right of state self-defense, either individually, collectively, or preemptively, but was geared more toward a collective defense initiative. He bases his argument upon several convincing premises:

- Historical language [employed] during the San Francisco Convention of 1945
- The specific wording within Article 51, itself
- The ambiguous [and hence flexible] nature of the language adopted
- The fact that Article 51 was placed within Chapter VII and not Chapter VIII
- Lack of defining criteria for what is ostensibly more important than reactive defense.²⁰⁷

Prior to the adoption of the UN Charter, there was more widespread universal acceptance of the concept of preemptive unilateral action. Much of the basis for this was founded upon the famous Caroline incident of 1837, itself based on preexisting formulations. This latter is sometimes referred to as the *Caroline test* when referring to the customary law justification for anticipatory self-defense, which has taken place outside the limitations imposed by Article 51. The primary elements and foundational principles drawn from this approach to self-defense, which remain viable today, were the concepts of necessity, proportionality, and last resort, or in the words of Daniel Webster, "instant, overwhelming, and leaving no choice of means, and no moment for deliberation." Webster further asserted that nothing "unreasonable" or "excessive" could be done in the name of self-defense, thus establishing the important principle of proportionality. In other words; the force employed must be commensurate with the threat. This principle places restraint on the unlimited use of force by the state. Byers notes that these were all important foundational principles underlying necessity and proportionality as they relate to self-defense.²⁰⁸

The Caroline test, therefore, not only serves as the underlying framework for the justification of the use of anticipatory intervention—under justified and qualified circumstances. However, it is important to note that the wording and intent of the Caroline test, in the opinions of both Crawford and Molier, relates more precisely to a situation based upon the excuse of necessity rather than directly to one calling for anticipatory self-defense.²⁰⁹ Over a five-year period, the U.S. Secretary of State, Daniel Webster, formulated, clarified and fostered these principle criteria, in diplomatic exchanges with his British Counterpart, Lord Alexander Baring, 1st Baron Ashburton, which resulted in the Webster-Ashburton Treaty of 1842.²¹⁰ The principles were raised and upheld during the Nuremberg trials in 1945.

These fundamental principles largely defined state practice prior to the adoption of the UN Charter on October 25, 1945. More recently, there appears to be a trend to revert to a paradigm reflective of that of the Caroline incident test. Byers considers that a major shift has taken place in international customary law and that “[a]s a result of the law-making strategies adopted by the United States and heightened concern about terrorism worldwide, the right of self-defence now includes military responses against countries that willingly harbor or support terrorist groups, provided that the terrorists have already struck the responding state.”²¹¹ Whether such a perspective is justifiable under international law is the crux of a seemingly endless debate.

The House of Commons Foreign Affairs Committee in a subsequent report entitled, *Foreign Policy Aspects of the War Against Terrorism*, indicated the importance of balancing the requirements enshrined within Article 51 of the UN-Charter, restricting the use of armed force, with the fundamental requirements of State to defend themselves against new, different, and deadlier emerging threats, such as, among others, those presented by weapons of mass destruction (WMDs). The original purpose of Article 51 clearly was designed to maintain international peace, security, and international order. A blanket restriction against anticipatory self-defense is not conducive to such goals considering the expansion of the worldwide terrorist threat and is therefore counterproductive. Quite simply put, when the terrorists come knocking, it will be too late for talking. Principles relating to condoning anticipatory state self-defense have well-founded precedents, notably the Caroline test of 1837 (though many critics would prefer to overlook or disregard this important historical precedent in customary international law).

The importance and relevance of legal concepts and precedents cannot be held against some sort of imaginary chronological timeline. I believe many would fail to concur with such a view. Tladi expounds further asserting: “Moreover, even if the Ashburton-Webster exchange did

reflect customary international law in 1842, customary international law continually revolves.”²¹²

While such a premise is certainly valid—to an extent, we must also question whether such an assertion is particularly applicable to the topic at hand.

Thus, we are faced with circular logic. Evolution? Yes certainly, however, it would be a grave error to jettison precedent on the mere pretext of evolution alone. The Caroline precedent took place 103 years prior to the establishment of the UN-Charter. We now find ourselves (at the time of writing) almost 72 years onward since the enactment of the Charter. Does this mean that in another 31 years it will be time to disregard the Charter as obsolete and anachronistic as well? This appears to be little more than a spurious argument in support of ignoring the Caroline precedent; portions of which some find inconvenient. Again, these legal wrangles do little to offer solutions and support the hypothesis of this research that the current rules of IL are inadequate to deal with the species of threat being faced today. Time is however not the only element to be considered. There remains a direct tension between the earlier Caroline test and the precepts enshrined within the UN Charter. This latter established an entirely different regime on the legitimate use of state force.

This ability of customary law to adapt to changing needs and circumstances is indeed one of its strong points, the fact that it is not codified, on the other hand, also represents its greatest weakness. Some examples of case law which continue to play a role and offer guidance in the question of self-defense are, *The Republic of Nicaragua v. The United States of America* (1986),²¹³ and the Caroline affair (1837).²¹⁴ While these precedents need not dictate international law, they should nevertheless be taken under consideration.

Such logic, as that of the legal evolution argument, supports and pleads in favor of revising the interpretation underlying Article 51, if we follow this conclusion to its logical end: customary international law evolves with time according to necessity

It is certain that clearly defined limitations must be prescribed in any relaxing of the interpretation of Article 51, however, change it must. One problem posed again, is that of ambiguous language. The House of Commons Foreign Affairs Committee speaks of a “threat of catastrophic attack.” An empirical evaluation is required to designate what exactly constitutes a catastrophic attack and what separates it from other types. Given the difficulty to provide a coherent definition of terrorism, this poses a significant challenge to those who would alter the interpretation of Article 51.

When considering international customary law and State practice, the looser interpretation of anticipatory self-defense has been frequently practiced with other States either demurring (indicating tacit consent according to certain) or remaining silent. This tends to lean toward acceptance and hence, customary State practice. As Sir Daniel so aptly points out, the reality of academic debate is not that of the reality of the battlefield and the threat environment which emerges therefrom, when he states, “There is little intersection between the academic debate and the operational realities.”²¹⁵ He further expounds upon this theme in a very clear reality-based assessment, “*And on those few occasions when such matters have come under scrutiny in court, the debate is seldom advanced. The reality of the threats, the consequences of inaction, and the challenges of both strategic and operational decision-making in the face of such threats frequently trump a doctrinal debate that has yet to produce a clear set of principles that effectively address the specific operational circumstances faced by states.*”²¹⁶

Self-defence against Non-state Actors

There are scholars, such as Yoram Dinstein, who base the legality of cross-border attacks, such as those upon Afghanistan—emanating from the FATA region of Pakistan, upon whether the host state is either *unable or unwilling* to deal effectively with the perpetrators or to prevent such attacks from occurring. This is commonly referred to as the “unwilling or unable test.”²¹⁷ While this doctrine has previously appeared in different guises and inferences; notably the Chatham house *Principles of International Law on the Use of Force by States in Self-Defence*, back in 2006;²¹⁸ it is Ashley Deeks who is remarked for supporting this current terminology. This relatively recent doctrine has created controversy and hostility equal in scope to that pertaining to questions of preemptive self-defense, targeted killing, or the strategic use of armed drones. Many of the same proponents and critics once again find themselves at odds.

According to Deeks the doctrine, in no-nonsense fashion, asserts that “[I]t is lawful for State X, which has suffered an armed attack by an insurgent or terrorist group, to use force in State Y against that group if State Y is unwilling or unable to suppress the threat. During their incursion in to Syria in 2014, the United States laid claim to this right of individual and collective self-defense. The justification under Article 51, and in accordance with this doctrine, was presented in a letter to the UN Secretary General.²¹⁹ The United States further noted that the actions taken were in accordance with the principles of necessity and proportionality. Other legal scholars, such as Michael N. Schmitt, lay a greater burden of proof at the doorstep of the targeted victim state for the victim to legitimately resort to self-defense such as delineated under article 51 of the UN Charter.²²⁰ There persist several probing issues related to this doctrine which remain to be clarified under international law, to wit:

1. Whether this doctrine is indeed part of customary law as some have asserted (State practice and *opinio juris*). Certainly, its limited application would seem to argue against such a premise.
2. Whether the unwilling or unable host state has clearly expressed their inability or unwillingness to deal with the situation. This cannot be merely a speculative and subjective calculation on the part of the belligerent, which would lead to abuse.
3. Finally, and perhaps most importantly: Does an attack by a nonstate actor trigger an exception to the prohibition of force as outlined in Article 2(4), thus permitting the victim state recourse to invoke individual and collective self-defense under Article 51 and the use of preemptive military action, and if so under what specific criteria?

The problem facing states, involved in modern conflicts, is that they are largely dominated by violent non-state actors. These tensions were the focus of a critical scholarly examination by Gelijn Molier, in *The War on Terror and Self-Defense Against Non-State Actors*. The author pointed out that the traditional model of ascribing responsibility for armed aggression, normally attributed to the state from whence such entities operated, and from where such attacks emanated is no longer as clearly defined (due to the transnational nature of the phenomenon). Additionally, it can no longer be as easily and fairly attributed, to a specific State, in the current circumstances, as it has been in the past.

This is particularly relevant regarding so-called failed states, for if such states cannot put their own houses in order and maintain the rule of law, how can they possibly be expected to police such disparate groups of transnational fighters? These foreign fighters are often housed, perhaps temporarily, within their own unsecured and porous borders. There is no clear definition of what

constitutes an armed attack under art. 51 of the UN-Charter, nor from whom such an attack may emanate. Does a cyber-attack, for instance, justify the meaning of this definition?

There have also been some positive efforts to establish a more cohesive set of formal guidelines. Unfortunately, many of these efforts are often driven by personal agendas or blinkered vision. A ten-year study undertaken by the ICRC was but one example. The International Law Association, chaired by Mary Ellen O'Connell, adopted yet another, which resulted in a report conducted by a panel of eighteen experts originating from fifteen different states and presenting five years of investigative research and documentation.

Finally, there is the significant problem of the restrictive interpretation of the article itself. Since the central tenet of the charter is to ostensibly avoid armed conflict, maintain security and ensure peace at all costs. As outlined in Article 2 paragraph 4, many scholars consider the self-defense clause as logically adhering to a more restrictive interpretation, concerning the collective or individual state rights to self-defense.²²¹ Thus, a state according to this restrictive type of interpretation would only have recourse following an armed attack of significant magnitude, by a formidable opponent resulting in grave injury or harm. A definition with echoes of the criteria cited in the Caroline doctrine. Such a definition would, by necessity, preclude preemptive self-defense and certainly the type being currently practiced internationally.

The UN Charter was ostensibly designed to avoid the madness and bloodshed that had defined the previous two World Wars, and the use of force was to be restricted to only three permissible exceptions. The first was authorization by the United Nations Security Council for the maintenance or reestablishment of peace under Articles 39, and 42 (39 determines the status and while 42 provides authorization for intervention). The second, covered under Article 51, was

the inherent right of self-defense for nations. Finally, the third related to a State invitation for assistance whether or not under the guise of collective self-defense.

James Green concurs that “The inherent right of self-defense is universally accepted as an exception to the general prohibition of the use of force.”²²² The difficulty faced today is, that the wording of the Charter itself, and more specifically that of Article 51, pertaining to the rights relating to self-defense, were very loosely worded and allowed several different and opposing interpretations to be drawn

Regarding drone warfare, it is imperative to note that, this legal framework means that air strikes—including those conducted by drones, are and can be considered as an armed attack, thus triggering a State’s right to self-defense. Should the government of a state such as Yemen or Pakistan decide that air strikes are prohibited and despite this, a drone attack occurs, drone attacks may be legally construed as an armed attack, and by consequence, afford the victim state the right to armed retaliation in self-defense. Although an unlikely scenario it must nevertheless be considered in light of the ruling.

The fact that threats, imminent or otherwise, were relegated to the category of “less grave forms is problematic for states proposing measures of anticipatory self-defense since according to the courts holding only cases of armed attack justify the resort to self-defense. The aggrieved state must, in the view of the court, take other, proportionate countermeasures. By the same token, however, the court insisted upon the inherent right of states to self-defense against armed attack, under international customary law. Finally, it is useful to bear in mind, the context and nature of the threat. At the time of this ruling international terrorism posed a much less significant threat than it does today.

Preemption vs. Prevention

There has been much heated discussion over the use of anticipatory self-defense, otherwise known as the doctrine of *preemption*. Anticipatory strikes are seen in two different guises, that of preemptive attacks and those categorized as preventative. Depending upon the interpretation assigned anticipatory indicates something that comes before. Anticipatory indicates the temporal characteristic of intervention preceding the actualization of some intended threat. Much like the term preventative, it accords the notion of impending harm. Preemptive carries the notion of heading off an impending threat prior to its actualization and preventative means that the threat may or may not have been declared. While the two terms, preventative and preemptive, are often conflated, Stephen Coleman provides a convenient framework for our consideration, where he employs, "...the term 'pre-emptive attack' in cases where enemy aggression is imminent, and the term 'preventative attack' in cases where enemy aggression is expected at some [unspecified] time in the future [in other words intended]." ²²³ The trend towards a loosening of the self-defense criteria, to allow a more flexible response, has been particularly supported and advanced by the United States. See the diagram below for clarification.

Preemptive, Preventative, and Anticipatory Self-Defense

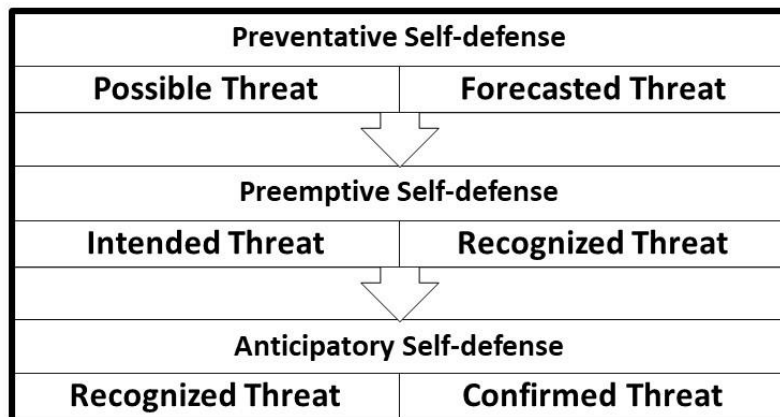


Figure 3© James P. Welch 2018.

The legitimacy of response as a measure of self-defense increases proportionally as the level of threat becomes increasingly evident.

The real key to preemptive intervention depends heavily, in turn, upon yet another concept, that of imminence. Imminence calls to mind the synonym of “immediate” and indeed this was the view adopted by most medieval legal scholars. This was the definition encompassed by the *Caroline incident* of 1837 as well. Additional characteristics include that the menace must be overwhelming and poses a grave threat (e.g., Walzer’s supreme emergency) to the state in question. Francisco Vitoria, for example, exhorted that “Self-defence must be a response to an immediate danger, made in the heat of the moment or *incontinenti* as the lawyers say (author’s emphasis).”²²⁴ However, is it plausible to consider the same criteria as valid in the fast-paced, technologically advanced environment of 21st-century battlespace? Is the essence of “imminent” as we understand it today, equivalent with that which existed in the 16th century? Probably not.

Given that threats can be far more rapidly organized, transferred, and implemented to pose an immediate transnational threat, makes preemptive interventions incumbent upon the targeted state, to assure a strategically effective and balanced response. The one factor that remains the

same between the evaluations of then and now, is solid verifiable intelligence. Author David Maple defines the realist perspective of preemptive intervention, “Realism insists that at least occasionally, preemptive war can also be an indispensable means of defending the state against grave but nonforceful threats.”²²⁵ It is incumbent then, to clearly define what is meant by preemptive as opposed to preventative.

The question of preemption was set according to the precedents of the *Caroline incident* of December 29, 1837. The principles of necessity, proportionality, and last resort were firmly established as the foundational criteria underlying state self-defense. The then Secretary of State Daniel Webster outlined the now famous guidelines, “necessity of that self-defense is instant, overwhelming, and leaving no choice of means, and no moment of deliberation.”²²⁶ The concept of preemption was, therefore, the established benchmark for preemptive defense *prior to* the establishment of the UN Charter and particularly Articles 51 and Articles 2(4).

Maple draws an intriguing parallel between the view that it was a failure not to have initiated a preventative war in 1930, to stop the rise of Hitler (The Munich analogy) and that consideration as a possible influence exercised upon George Bush in his [presented as preemptive] decision to invade Iraq.²²⁷ His observation highlights the lack of a clear delineation between the terms preemptive and preventative. Judith Lichtenberg, referring to Walzer, correctly underscores the problem of distinguishing between preemptive self-defense and more offensive preventative intervention. Lichtenberg further addresses the danger posed by conflating them, “But as the threat becomes less imminent, preemptive attack shades into preventative war, which, by definition, responds to a more distant danger and is therefore more difficult to justify.”²²⁸ In other words, the further imminence recedes into the background, the larger looms a war of aggression. Lawrence Freedman takes Lichtenberg’s logic a step further.

Freedman, rather controversially, if logically, argues in defense of a doctrine of prevention and posits that preemptive interventions are, for all intents and purposes, preventive in nature. His reasoning is that prevention is meant to head off a dangerous situation before it arises to the critical stage of imminence with perhaps attendant catastrophic results. As both Lichtenberg and Freedman correctly indicate the war in Iraq, although dressed up as preemptive, was little more than a preventive war camouflaged using smoke and mirrors. These threats exist along a continuum. The greater the threat posed, and consequences faced, the greater the need for flexibility toward anticipatory self-defense under international law.

According to the so-called *Bush Doctrine*, which was largely formulated from the body of *The National Security Strategy of the United States of America, September 2002*, the outlines for both anticipatory (legally recognized) and preventive (illegal according to international law), figured prominently. The instrument did not banter about or mince words as to its intentions. Nothing would stop a determined United States in its pursuit of national defense, regardless whether it was justified. The justification for such a position was underscored repeatedly by reference to elusive WMDs in the hands of terrorists; WMDs which have never materialized and given the difficulty of procurement, transport, and dissemination, hopefully never shall in any meaningful sense. The document is an odd blend of reasoned judgment and speculation based upon hypothetical projections. While the strategy made sense overall, there exist problematic elements:

We must adapt the concept of imminent threat to the capabilities and objectives of today's adversaries. Rogue states and terrorists do not seek to attack us using conventional means. They know such attacks would fail. Instead, they rely on acts

*of terror. It then digressed into the realm of speculation ...and potentially the use of weapons of mass destruction—weapons that can be easily concealed, delivered covertly, and used without warning. The document then returns, just as abruptly to the conditions of reality...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. To forestall or prevent such hostile acts by our adversaries the United States will, if necessary act preemptively.*²²⁹ While such an approach is certainly justified the use of the term preemptive, and the challenging way in which the wording is expressed, is less than diplomatic.

Preventative war was given new impetus following the *Bush doctrine* implemented by President George W. Bush, during the U.S. invasion of Iraq. While the invasion sparked widespread condemnation and a distinct lack of international support, the consequences of undertaking a preventative war were negligible. Such discussion gives pause for reflection and underscores the importance of developing a well-balanced national security strategy. Such a strategy must strike a balance between constraints imposed by international law and the legitimate use of judicious anticipatory force against grave threats. For instance, it was noted that “The debate over preemptive strikes took on particular salience in 2002, Deeks said, when the United States claimed — more clearly and assertively than before — that a state could use force to forestall certain hostile acts by its adversaries. More than a decade later, Deeks' chapter, "Taming the Doctrine of Preemption," reviews where the debate currently stands and where it is heading.”²³⁰ Selective interpretation of the language of the UN Charter, particularly regarding the dispute between

Article 51 and the right to preemptive self-defense has resulted in a heated debate over the intent of the article. This debate is largely responsible for the polarized positions which have been adopted regarding the self-defense issue. Arend proposed three possible solutions to break free from this current deadlock:

- Acceptance of the constrained reactive conditions under the Caroline paradigm
- Relaxation of imminence requirement due to the nature of evolving threats
- Abrogate and declare the UN charter framework to be a failure²³¹

In its current format, the Charter of the United Nations can be seen simultaneously through two opposing prisms, leaving the concept of imminence to be ultimately loosely determined. If this is indeed the case, and the foundation upon which the U.S. has based its rights to self-defense, then one must question the concept of imminence itself. It appears that there is a dangerous gap, in international law, concerning the definition of the meaning of imminence. The guidelines for the conceptualization concerning the question of imminence were brushed aside under the Bush doctrine, carried forward and even augmented further, by the Obama administration.

Arend recalls, "...in its 2002 National Security Strategy (NSS) that the United States 'must adapt the concept of imminent threat to the capabilities and objectives of today's adversaries.'"²³² If such semantic juggling, however, is acceptable (as appears to be the case) then, this completely invalidates the guidelines for entering a just war. Indeed, if they are that outmoded, and out of touch with the reality of modern conflict, then they should perhaps be replaced with a more reasonable and adequate framework.

This is the position of many current thinkers and the also thrust of the current research as well. Some suggestions on how this might be developed are presented in the final chapter. It is,

however, important to emphasize that such modifications must be strictly controlled and created in a spirit of global need, rather than geared towards the desires and national vested interests of individual states. The rules, otherwise, become automatically invalidated by expanding the boundaries largely to suit one's own needs.

Mayer, writing on the Bush policies, highlights the danger of such practices, "By classifying terrorism as an act of war, rather than as a crime, the Bush Administration reasoned that it was no longer bound by legal constraints requiring the government to give suspected terrorists due process."²³³ Such an observation obviously precludes the possibility that it can be both a crime as well as an act of war. Additionally, it overlooks the important criteria of geographic origins. It would seem unlikely that the United States would launch a drone attack on Great Britain, or France for instance, even if that were to be the point of origin for such an attack. Such positioning recalls realist perspectives advanced in *The History of the Peloponnesian Wars*, by Thucydides: The Athenians dictating to the Spartans pronounced that, "Right, as the world goes, is only in question between equals in power, while the strong do what they can and the weak suffer what they must."²³⁴ The weak, in our case often refers to those noncombatants caught in the middle of armed conflict. Such thinking was also fundamental to the reflections of Machiavelli (*The Prince*) and Thomas Hobbes (*The Leviathan*), true genitors of realist philosophy. There are critics who oppose such a stance.

Milson and Herman assert that "the International Court of Justice and a majority of writers take the view that Article 51 preserves the 'inherent right' of self-defence that preceded the Charter, which included the right to act to prevent an attack from occurring,"²³⁵ Unfortunately the first part of this premise is flawed. The ICJ never took a position of the question of anticipatory self-defense.

While the ICJ statured on the material in Nicaragua, there has never been a clear delimitation between the actual occurrence of the attack and the act leading up to the attack proper. In both cases, self-defense would appear to be a justified response as argued throughout this work. Michael Schmitt cogently points out that, “pre-emptive self-defence is not a correct legal term; it rather should be labelled anticipatory self-defence, which is recognized as a standard concept in international law.”²³⁶ This is more than a question of simple semantics and has a great impact on our understanding of the concept as it applies to international law. The difference between these terms has been indicated in a previous diagram. Quite simply put there is a burden of proof. Such intelligence must be confirmed by multiple sources providing that there was a substantial possibility of impending attack for the act of self-defense to find legitimacy.

In the opinion of this research, for preemption to be justified it would certainly require transparency relating to solid intelligence detailing an imminent threat against the state. This appears to be the only scenario where anticipatory attacks in self-defense could be considered legitimate. On the other hand, a narrow interpretation such as that proposed by O’Connell; waiting, to receive the first blow from a committed aggressor, could quite possibly spell the death knell for a defending victim. Millson and Herman clearly echoed this sentiment in their 2015 policy paper, “Awaiting an ‘armed attack’ or even allowing one to become ‘imminent’ may leave a State without an effective ability to defend its people.”²³⁷ It appears only logical, therefore, that the magnitude, veracity, and nature of the attack must all enter the calculus of any legitimate self-defense equation.

Many critics have made, and indeed continue to make, assertions concerning the legality and authorization of the use of force and proportionality. They do so by referring to often vaguely worded, misinterpreted, ill-defined or generalized legislation. There are so many circumstances

and variables involved, in modern warfare that an inflexible, “one rule fits all” framework, in the current environment, is an inadequate response. It is nearly impossible to establish a set of rules, concerning anticipatory preemptive self-defense, which is equally applicable to all states, in all situations, and for all armed conflicts. This is particularly true with the advent of threats such as weapons of mass destruction (WMD) and transnational terrorism. Anthony Arend tellingly reiterates the point that “Both WMD and Terrorism pose threats unanticipated by traditional international law.”²³⁸ The current situation remains unclear with proponents and critics vociferously spinning their wheels on both sides of the legal debate and achieving no demonstrable results.

The ethical perspective: Walzer’s moral argument on Anticipatory Self-defense²³⁹

Walzer, a steadfast proponent of the non-intervention rule, considers that the only truly ethically justified reason for conducting warfare is a response to aggression levied upon the state. This view incorporates this as his fifth principle in his six-point theory of aggression, which begins with the premise that, “*Nothing but aggression can justify war.*”²⁴⁰ But the conundrum is, how exactly do we define aggression and what is its relationship to imminence, and even more precisely the concept of intent? Such a restrictive view of the use of armed force, would, at first glance, appear rather shortsighted tending to preclude the notion that occasionally armed force must be employed in the interests of good; to establish peace and to maintain justice. However, Walzer also examines the right to anticipatory self-defense and the character of aggression.

Following the earlier publication of *Just and Unjust Wars*, Walzer qualified his position regarding humanitarian interventions. He distinguishes this type of intervention from others and

proposes that the only justification, for states to violate the non-intervention principle, in support of humanitarian intervention, would be in the case of egregious atrocities which violate universal norms, and then only as a case of last resort, in accordance with just war principles.²⁴¹ This type of intervention still supports the original premise first elicited by Walzer regarding intervention as a response to aggression.²⁴² Some might see this, however, as a form of word-play or semantic manipulation. Walzer has adamantly refused to reflect upon the philosophical dimensions of warfare, preferring instead to adopt a more practical regard.

Despite being an ardent critic of the Caroline/Webster standard, in Chapter 5 of *Just and Unjust Wars*, entitled *Anticipations*, Walzer also recognizes the fact that anticipatory self-defense does indeed exist as a legitimate exception, complementing his own interpretation of just war theory. In this important chapter, he additionally lays out the required criteria for a moral justification of anticipatory self-defense. Walzer establishes several important points worthy of consideration and it, therefore, behooves us to examine the chapter in greater detail.

While Walzer asserts that the right to anticipatory self-defense does indeed exist as a moral right, he also notes that it is, nevertheless, highly restrictive in nature. Restrictive in fact to the point of nonexistence. Walzer presents an excellent argument emphasizing the fact that the Caroline/Webster standard equates imminence with visibility, or a clear manifestation of acts and events. Walzer compares this with an incoming blow being blocked before the punch has actually landed. In other words, any response would be quite likely too late to be effective.

Walzer goes on to emphasize the importance of the criteria of last resort. A criterion which must be based upon reasoned judgment given the gravity of the consequences involved. The decisions made in the cold light of reason must be drawn only after weighing all the relevant

facts. Walzer asserts that the resort to anticipatory self-defense requires a modification of the existing legal framework. A point that has been equally underscored throughout this research as well. A spatio-temporal timeline for resorting to anticipatory self-defense is then established. This timeline is configured with the Caroline standard on one end, corresponding to immediate threats, and preventative war responding to distant threats, at the opposite extreme. Between these two imaginary points there exists a space for determining a morally justified intervention.

Preventative war, explains Walzer is a geopolitical concept configured to maintain the balance of power, avoid the distribution of power from a position seen as balanced to unbalanced with the associated creation of hegemony by a single entity. and the author goes on to examine this phenomenon in more precise detail. Walzer adopts Vattel's formula describing acts as threats and presents the dichotomous nature of the balance of power model as it relates to both war and peace. In this case, acts are considered as moral judgments calling for a military response that is morally understandable. Walzer examines the utilitarian and moral arguments for preventative war.

Despite the fact that the current legal paradigm considers preventative war as always unjustified, Walzer lays claim to its moral justification in certain limited circumstances. According to Walzer, and indeed Vattel before him, preventative war inherently contains an element of just intent (*iusta causa*). According to Walzer, in order to be morally justified, preventative war must be based upon acts not merely speculative assumptions (such as with the Iraqi invasion of 2003).

Provocations and pontification points out Walzer, are not synonymous with threats. Walzer emphasizes the fact that unlike the Caroline standard, "[t]he line between legitimate and

illegitimate first strikes is not going to be drawn at the point of imminent attack but at the point of sufficient threat.”²⁴³ Thus, Walzer shifts the burden from a temporal framework to a more logical and reasonable contextual one. Walzer also correctly emphasizes the fact that this specific point, where the threat is sufficient, is understandably context-specific and that there must exist a sufficient preponderance of elements to draw such a conclusion. The author uses the 6-Day War of 1967 as an apt illustration of this concept.

Despite the fact that the threat is always inevitably contextual in nature Walzer provides us with three points of guidance with which to measure a significant threat:

- Manifest intent (clear and evident)
- Active preparation (lacking in the U.S. invasion of Iraq in 2003)
- Inevitability

In addition to these three points presented by Walzer, I would add a fourth and that *is the maintenance or existence of an ongoing threat.*

In a spatio-temporal framework, preventative wars span past and future developments. The Caroline standard relates to the immediate moment at hand. Walzer’s construct—a time frame he refers to as “the present,” lies somewhere along the timeline between these two previous points. Walzer adopts a relative and contextual judgment for the implementation of a “*Grotius Sanction*,” and indeed cites Grotius who presciently envisioned the need for such a model of anticipatory self-defense. A model of the legitimate use of state-sponsored force through the use of anticipatory self-defense.

Summary

The chapter began with a discussion concerning the different rules, regulations and guidelines that pertain to and determine the conduct of armed conflict. Throughout history the concepts of justice and war have been inherently related. The current examination adds deeper insights and builds upon the introductory foundations of previous chapters. There was an in-depth examination of the legal issues, the various bodies of law, and the complex web of rules and regulations relating to war and its just conduct. It was observed that, while there are countless rules, regulations, agreements, treaties, and precedents that in many cases they fall short. None of these legal statutes are distinctively explicit enough to formulate a clear and comprehensive set of guidelines, which apply to 4th generation insurgent warfare, or the associated rights and protections of self-defense as means of responding to this menace.

In her article, *Unlawful Killing with Combat Drones*, O'Connell fails to recognize and assign proper value to such principles as intent, the scale of risk, probability, and threat levels. The author posits that: "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 action."²⁴⁴ This is precisely why this research argues that the current set of rules, in their present form, are no longer applicable, given the changing face of modern warfare. O'Connell also argues that relentless cross-border incursions are not a significant enough factor for a state to resort to self-defense under the principles of Article 51. O'Connell cites the ICJ ruling against Uganda, in *Congo v. Uganda*.²⁴⁵ While correct in principle, this also depends, realistically, upon many factors including the size, intensity, and duration of such attacks.

Most of these laws were drawn up with great flexibility and intended to address the risks and dangers of conventional, symmetric state level warfare. The face of warfare today, has little

semblance with anything we have previously encountered. Liberal, humanitarian oriented, society currently imposes far greater restraints upon the conduct of war than ever before, while the face of war itself has become increasingly unconstrained, and the consequences for the victims are often “solitary, poor, nasty, brutish, and short,”²⁴⁶ with little regard for common decency and no respect for rules whatsoever.

The earlier rules were adequate to address the challenges of traditional warfare; however, they are less capable of adapting to this newer hybrid form of asymmetrical, transnational armed conflict and the responses that it has engendered. The questions, in either paradigm, nevertheless remain the same and relate to the concepts of necessity, proportionality and last resort. However, new answers are required in the face of unique threats and unprecedented challenges. As a result, these various shortcomings in international law have fostered a heated debate and much discord surrounding these controversial subjects. The focus of such concern centers upon questions of legitimacy and defining the limitations of justifiable response.

It was recognized that there exist three areas which give rise to tensions within international law. The first, relates to interpretation, the second related to adherence, while the third concerns the aspect of enforcement. Any weak link along this chain of justice can cause the system to fail. In other words, for international law to be effective there must exist, concordance with the meaning, adherence and respect of the given laws, and finally an efficient mechanism for the enforcement of violations.

Many will see the weakness of such formula immediately. Given the vested interests of different states vying for power, and the limited resources and authority available to international organizations, international law seems like a good idea albeit an unrealistic one. Despite these flaws, however, international law is, nevertheless, often being respected and upheld. On the

downside, violations of sovereignty do occur and historically the number of violations is on the rise. In the balance, this history of violations bears witness to the overall weakness of the U.N. Charter framework.²⁴⁷

For customary practices to become conventional written instruments, such as treaties and protocols, a great deal of flexibility is required when drafting the various documents. A single word or phrase can sabotage the entire process. This is in fact a significant part of the underlying problem in the debate surrounding questions of anticipatory self-defense.

The following section of the chapter dealt with introducing the legal framework. Paramount among these laws is: the law of armed conflict (LOAC), or international humanitarian law; international human rights law; and Article 51 of the United Nations Charter, concerning the right to self-defense. There was an historical view of the development for the legal precedents contained within these statutes.

While some scholars, such as Mary Ellen O'Connell, argue that the existing framework is sufficient, there is also a growing amount of literature stating that this is not entirely the case. The earlier guidelines were established to contend with two specific types of armed conflict: traditional international state level conflict, and non-international armed conflict (NIAC). There were no provisions set out to deal with gray area of transnational armed conflict (TAC). It was shown that despite the existence of such laws, an important part of the problem relating directly to the legal framework, was their lack of the powers of application, enforcement and adherence. Modern institutions of control are entirely ill-adapted, unprepared and lack the appropriate instruments to deal with the menace, which currently threatens effective international relations. Those agreements, treaties and protocols, which do exist, are often neglected, skirted, or

overlooked and violated with impunity. The overarching framework relating to the topic of self-defense was also introduced at this point.

Both sides of the currently raging debate concerning drone warfare were given equal weight. The essential point to establish here is that the use of armed drones, in no way infringes international law. It is an instrument of legitimate state force, much the same as any other, and if used properly, with respect to the existing laws of war, presents no violation whatsoever, either legally, morally or ethically. As a weapons platform the armed drone does not violate either international humanitarian law during international armed conflict and non-international armed conflict. Additionally, armed drones do not contravene the *jus ad bellum* rules of force, unless they are employed to violate sovereignty without justification, and therefore fail to respect the constraints imposed by international law. Employed in this fashion, they would serve as an extension of an illegal, *jus ad bellum* violation, much the same as would any other ground unit or weapons system. In this respect, if the legal framework regarding the state-sponsored use of force is respected and strictly adhered to, then the legal precepts of *jus ad bellum* and *jus in bello* would suffice.

The key to a legitimate and effective anticipatory self-defense strategy involves transparent operational processes and solid intelligence which confirm a pending threat. In contrast to other authors, who insist that self-defense must occur exclusively as a response to armed attack, this research does not concur with that view. This traditional pacifist perspective, based upon biblical injunctions, is entirely misplaced in the realist world of transnational armed conflict. Waiting for such an attack to occur is not only detrimental to the interests of national security, it is also clearly suicidal.

During the preceding chapter it was further determined that, regardless the legality of drones, it would not be unreasonable to envisage the creation of a well-balanced, international body charged with working to revise outdated and outmoded regulations. While such efforts have been attempted in the past, the results have been less than satisfactory. Such a constitutive body would be related to defining the limits and boundaries of international, as well as non-international, armed conflict, and making them clearer and more applicable to the conflicts of the 21st century (and beyond). The drafting of such a protocol would, inevitably, be a vast and challenging undertaking. Notably a typical existing organ to charge and entrust with such a task would be the International Law Commission; a special UN Commission. Legislation concerning the use of robotics during armed conflict, would necessarily be a part of such legislation or relegated to a separate, more specialized body of arbitration.

The chapter concluded with a discussion of the changing face of global warfare and the threats which must be considered. Again, the composition of the threat and its consequences must be weighed proportionally against the timing and severity of the response. In the case of threats by weapons of mass destruction (WMD's), the response must be firm and immediate, leaving not room for its accomplishment

Chapter V

“Never think that war, no matter how necessary, nor how justified, is not a crime.”

— Ernest Hemingway: Introduction "*Treasury for the Free World*" by Ben Raeburn. (1946).

Targeted Killing

Targeted Killing

Targeted killing (TK) has both advantages—when used correctly as a limited tactic, and numerous disadvantages when it is not. It is a short-term solution to a long-term problem, and quick fixes—like bubblegum on a radiator leak or a finger in a leaking dike, are not reliable solutions over the longer term. It is essential to emphasize that target discrimination, or target distinction—the target selection process, is a core element of targeted killing strategy. If preemptive strikes and self-defense were controversial issues, they pale in comparison with the heated debate surrounding the phenomenon of targeted killing itself. It is essential to examine the subtle differences and accusations as they pertain to targeted killing and assassination and precisely how these two phenomena differ if indeed, they differ at all. The media has gratuitously conflated the two terms in the public eye. Before getting ahead of ourselves it is perhaps best to provide a clear and concise definition of what constitutes targeted killing (TK).

Justifiable questions relating to the use of targeted killing can be raised. Was the elimination of Osama bin Laden an orchestrated assassination or a legitimate targeted killing?²⁴⁸ Was Operation Wrath of God (also referred to as Operation Bayonet) a legitimate covert action employing targeted killing or was it a series of illegal assassinations?²⁴⁹ In many cases, the

defining features of what differentiates assassination from targeted killing can be qualified by the existence of a recognized state of armed conflict; the criteria of necessity, and a resort to self-defense against possible future threats. These elements separate and distinguish targeted killing from assassination. Legitimate questions, related to targeted killing, have been raised, and merit consideration. Questions such as 1. Can targeted killing be carried out in situations other than a recognized armed conflict? 2. Can targeted killing be carried out within the confines of a domestic regime? 3. How does targeted killing differ from assassination? The answers to such questions must be framed within the legal and ethical framework of national security, including the effective balance of proportionality and a target discrimination.

One guiding principle is the concept of target *discrimination*. This was redefined in the Additional Protocols to the Geneva Conventions and destined to protect innocent victims of armed conflict and limit warfare to recognized participants. Target discrimination is core to the laws of war and fundamental to the conduct of any effective counterterrorism efforts.

Finally, there exists the associated rule of *proportionality*. The concept of proportionality, a reflection of skilled and ethical warfare, is an integral element in both *jus ad bellum* and *jus in bello*, and to a lesser extent, *jus post bellum*.

An alternative view, was expressed by Kenneth Anderson, testifying before a congressional committee. Anderson declared that the laws of war are not the appropriate guidelines. According to Anderson, "...the proper legal rationale for the use of force in drone operations in special, sometimes covert, operations outside of traditional zones of armed conflict is the customary international law doctrine of self-defense, rather than the narrower law of armed conflict."²⁵⁰ This perspective is clearly based upon "naked self-defense," than the more traditional view of

jus ad bellum than many would be willing to countenance and obviously tends to blur the boundaries between *jus ad bellum* and *jus in bello* criteria.²⁵¹ By comparison, Blank on the other hand, writing on targeting outside the zone of actual hostilities relating to the killing of al-Awlaki, advanced that “Here the mixing of paradigms and blurring of legal authority is particularly acute. On one level, the language is of armed conflict: “battlefield;” “enemy combatant.” At the same time, the explanation seems to draw on the international law of self-defense and questions of imminence and necessity: “due process;” “threat;” “holds a gun to your head.” Beyond the fact that no precise justification is offered for any individual strike in the current approach, the immediate consequence of this blurring of lines is to inappropriately mix legal authorities with unfortunate effects.”²⁵²

Strategically, targeted killing has become the “go to” solution in cases where the proposed target cannot be easily extradited (the wilderness of the FATA or the vast deserts of Yemen for instance), in other words, as a last resort where capture is not a viable option, or in situations where the commitment of ground forces would represent an unacceptable risk. Given these two concerns, and in view of a substantial and ongoing threat (such as was represented by al-Awlaki) in the balance of the national security calculus. Given that an armed conflict exists between United States (or any other state) and al-Qaeda and given that al-Awlaki served as a senior component in that conflict, the misguided cleric through his affiliated acts, and future threats rendered himself a legitimate target.

It is essential to note that targeted killing as a term of the art, is not recognized under international law. As for targeted killing being carried out in a domestic context, that is a state

targeting its own citizens within its sovereign territory, this seems highly improbable (though not impossible), since in principle a state of armed conflict is a precondition. Targeted killing differs from assassination by the fact that assassination broadly refers to an act with political goals. Additionally, as pointed out in the research, assassination is most often undertaken upon an unarmed and unsuspecting victim through the use of treachery or perfidy (both condemned under international law), whereas targeted killing simply refers to the execution of an individual (or group of individuals) posing a direct threat to the security of the targeting state. Assassinations, which are more of a political and domestic phenomenon are legally forbidden in the United States under Executive Order (EO) 12333. Legal justifications for targeted killing rely upon the now time-worn AUMF and the inherent right to self-defense as laid out in Article 51 of the UN Charter.

While frequently associated with the use of armed drones (UCAVs), targeted killing may be conducted using any number of tactical solutions including, snipers, aircraft, missiles, and the use of small specialized units of special forces.²⁵³ Targeted killing has been carried out by both military and intelligence components. Though many consider the targeting of al-Awlaki (September 30, 2011) as the first instance of targeted killing, the dubious distinction for the first recorded targeted killing (initially denied), by the United States, belongs to Mohammed Atef (born as *Abu Hafis al-Masri*, but also known as *Abu Hafis al-Masri* signifying “the lion of Egypt”), in November 2001. This targeted killing killed not only Atef but also Abu Ali al-Yafi'i his assistant, and six other al-Qaeda members.²⁵⁴ The first recorded CIA led targeted killing occurred February 2002 and removed al-Qaeda leader Qaed Salim Sinan al-Harethi.²⁵⁵

We may wish to clarify the difference for instance between a targeted killing by drone and say that by a sniper. The fact is that in the case of targeted killings by drone, there exists a formal

structure; a chain of command in place and a system of target validation (See Appendices J, K). In the case of a sniper, this is most often a tactical decision made in response to an immediate and pressing threat. The rules of targeting, however, remain the same. The sniper, however, generally operates with less information than with targeted killing. In the case of a targeted killing, the process is far more complex and includes the elements of Find, Fix and Finish (F3). The “Find” portion is the most complex and relies upon the collection of significant, convincing and confirmed intelligence. To summarize there is no legal or ethical difference between a sniper removing a threat compared with the use of a drone-fired missile. The drone is merely the instrument being employed to carry out that task. Generally speaking, the planning and targeting process will be longer, more complex and backed by intelligence when using a drone than with assigning a sniper mission, which is often reactive in nature

Critics of targeted killing can have claimed quite incorrectly, that the practice can never be justified under any circumstance whatsoever. They have done so by advancing unsupported and thus unjustified claims. While targeted killing is certainly not illegal, according to international law, IHRL renders the task of justifying targeted killing far more difficult. A blanket condemnation of targeted killing runs counter to the laws of war (again think of snipers). Such condemnation and IHRL logic is far more understandable when contemplating the case of the previous administration’s dubious interpretation (or intentional misinterpretation perhaps) of the distinction principle.

Adam C, Gastineau, remarks that, “Critics often refer to the tactic [targeted killing] as ‘assassination’ or ‘extra-judicial execution.’²⁵⁶ Abraham Sofaer extrapolates even further that “When people call a targeted killing an ‘assassination,’ they are attempting to preclude debate on the merits of the action.”²⁵⁷ This forceful and outright condemnation of targeted killing is

framed by investing it with extra martial connotations. As Sofaer further elucidates, “But killings in Self-defense are no more ‘assassinations’ in international affairs than they are murders when undertaken by our police forces against domestic killers.”²⁵⁸ This important point is often easily brushed aside by pacifist rhetoric.

While various principles outlined by Guiora extend generally to all aspects of armed conflict, they are particularly suitable to the use of UCAVs in their targeted killing role. Guiora in an earlier article from 2004, considered targeted killing within a framework of active self-defense.²⁵⁹ Examining targeted killing specifically in the context of the Israeli Palestinian conflict, Guiora offered the following definition:

Targeted killing reflects a deliberate decision to order the death of a Palestinian terrorist. It is important to emphasize that an individual will only be targeted if he presents a serious threat to public order and safety based on criminal evidence and/or reliable, corroborated intelligence information clearly implicating him. Intelligence information is corroborated when it is confirmed by at least two separate, unrelated sources. There also must be no reasonable alternative to the targeted killing, meaning that the international law requirement of seeking another reasonable method of incapacitating the terrorist has proved fruitless.²⁶⁰

Thus, Guiora also carries forth many of the same elements we prosed relating to the definition of targeted killing. While Guiora was addressing the Israeli-Palestinian conflict, his analysis is equally apt for any of the modern, asymmetric armed conflicts engaging State-level actors facing Stateless International Entities (SIE’s) involved in transnational armed conflict. Importantly

Guiora underscores the fact that it is not targeted killing as a strategy that needs to be called into question, rather the legal framework, which seems to be unable to adequately consider the changing reality of armed conflict. When considering the morality of the use of deadly force, for instance, Guiora declares that “Protecting a civilian population does not justify non-target specific counterterrorism; the measure must be based on legal, moral and operational criteria and guidelines.”²⁶¹ Such specific guidelines, when considered in such a manner, therefore, *interact and create a fusional entity worthy of serious policy evaluation* (author’s emphasis). Amos Guiora emphasizes that the boundaries and limitations, involved with a State’s counterterrorism policies, should be limited by three constraints:

- Domestic law;
- International law and;
- Morality.²⁶²

The Legal, Moral, and Ethical Aspects of Targeted Killing

The initial concern here is one of *why* the targeted killing of an individual should even be authorized in the first place. The response to this question shall be examined in detail and will be followed by the related question of *whom* we can legitimately target, if—as this research speculates, targeted killing when used as a tactic, can indeed be legally, morally, and ethically justifiable.

One problem with establishing clear ethical and legal dimensions is that there has been a gradual offsetting in the balance and original strategic conception of the targeted killing program. Drone attacks and targeted killing were initially designed to remove selected high value targets

(HVTs) and disrupt the operations of the terrorist organizations. In this respect, this description flushes out more fully our definition and understanding of the concept of targeted killing. This can be considered a “leadership decapitation strategy.” There has been limited research relating to the topic of leadership targeting practices. The majority of studies published have tended to argue against the effectiveness of leadership decapitation strategies.

The numerous assassination attacks upon Hitler would tend to contradict such a view. Unfortunately, those attacks failed to achieve their objective. Assassination has most often been associated with important individuals. Were it not for the existence of a state of recognized armed conflict states would be conducting targeted assassinations, rather than targeted killings. Decapitation strategy can be effective when the leader or leaders are charismatic and dynamic, as well as when the leadership is difficult or impossible to replace. Such a such a view, as that previously mentioned, also tends to completely overlook the case of Stalin, Pol Pot, Idi Amin Dada, and other sanguinary dictators, who cost the lives of so many.

The issue of targeted killing raises many ethical issues which lie at the center of the current debate. Guiora lays out four important principles that should define the U.S. counterterrorism policy and help to dissipate the misty veil of dubious legality and the sense of improper state conduct, under which it currently struggles. He emphasizes a precisely defined targeting policy which clearly outlines the concept of imminent threat; a greater emphasis on all-source intelligence, as opposed to technological reliance; an ethically, morally, and strategically balanced decision-making process, rather than a simple consequentialist, ‘ends justifies the means’ approach (often misattributed to Machiavelli’s *The Prince*), and finally, that the target determination process should have a moral and legal foundation, when bridging the gap between a threat and a target.

More recently, efforts to control, refine, and rein in the strategy of targeted killing, has resulted in the publication of official guidelines issued by the Joint Chiefs of Staff. The publication of this document and the associated concern may well represent a response to mounting criticism of the opaque and unfettered campaign as directed by the previous Obama administration. The current document serves as the handbook for defining targets and the targeting process, elucidating what is referred to as the “Joint Targeting Cycle,” and clarifying the obligations and responsibilities related to the target selection process. The entire process is based upon the Joint Integrated Prioritized Target List (the Kill list), also known as JPITL.²⁶³

Bryan C. Price and Patrick B. Johnston have both presented insightful and well-researched contributions on questions relating to decapitation strategy. Their studies adopted empirical approaches including quantitative multivariate analyses.²⁶⁴ Both studies, that of Johnston and that of Price, indicate that, in certain specific cases, decapitation strategy may indeed prove effective.

Price’s quantitative analysis is truly a brilliant and thoughtful piece of research. It defies the previous observations made by most scholars who considered leadership decapitation strategies as ineffective or even counterproductive. Price’s study represents a break with earlier research efforts, which were both constrained by small *N* populations, questionable database criteria, and the adoption of short chronological cycles, which in turn concentrated upon the number, frequency, and lethality of attacks, rather than the duration and resilience of the groups. Thus, Price’s study examined existential values rather than performance-based ones. Three specific characteristics make terrorist groups more vulnerable to leadership decapitation. These factors include the violent and illegal nature of their operations; the attendant requirement for secrecy (which enhances relative isolation, small group dynamics, and unit cohesion), and adherence to a

value-laden ideology (as opposed to a profit-based orientation). The findings of Price's study, even after controlling for the impact of time sensitivity, over short, moderate, and long-term periods reproduced the same results. Six significant findings were presented, which are worthy of consideration in relation to targeted killing and the associated leadership decapitation strategy:

1. The groups which experienced leadership decapitation suffered higher overall mortality rates.
2. Implementation of the strikes at an early phase will have a far greater impact upon their mortality rate.
3. Of the three models of group leadership decapitation analyzed—killing, capturing, or killing following capture, was largely irrelevant in correlation with the group mortality factor.
4. Regardless the reason for change in leadership, the result remains the same—increased mortality rates.
5. The size of a group has no impact in determining its resilience.
6. Perhaps the most interesting finding; that religious-based terrorist groups were more vulnerable and easier to decimate than were nationalist groups, following leadership decapitation.²⁶⁵

Johnston's research also provides similar interesting conclusions, which tend to "...challenge previous claims that removing militant leaders is ineffective or counterproductive.²⁶⁶ On the contrary, they suggest that leadership decapitation (1) increases the chances of war termination; (2) increases the probability of government victory; (3) reduces the intensity of militant violence; and (4) reduces the frequency of insurgent attacks."²⁶⁷ Although Johnston's findings are limited

in their overall approach they do offer an alternative perspective and statistical inferences worth considering. Johnston himself adds the judicious caveat that the findings while useful, they do not represent a “silver bullet” solution.

Taken together, these two studies present a direct challenge to previous notions relating to the effectiveness of leadership decapitation theory and the use of targeted killing as a strategy. The studies are more empirically based, with broader and more definitive quantitative analysis and must be considered, given their findings. Contrary to popular belief, if the models hold true to their findings, targeted killing appears to be an effective strategic approach to diminishing the effectiveness of terrorist organizations. This also accords with the emphasis of the current research, that judicious and selective targeting of the leadership, when complemented by actionable intelligence is a far better option than has been previously exercised.

One important point must, however, be borne in mind, when considering large, multivariate, quantitative studies such as those by Price and Johnston. The fact that such studies often attempt to include extensive independent variables, some of them quantifiably immeasurable, reduces the overall precision in the long run. This tends to weaken certain conclusive inferences being drawn. Quantitative analyses are only as strong as their input data. When those variables are numerous and randomly selected then the degree of confidence diminishes accordingly. It does not automatically stand to reason, for instance, that a state with a high GDP, will automatically also have an equally effective counterterrorism strategy.²⁶⁸ To summarize the greater the number of variables involved (especially those that are difficult to quantify) the greater the chance for a larger margin of error.

Strikes carried out by the U.S. were quite successful at the outset, with few civilian casualties compared to high-value targets (HVTs). HVT to total reported death ratio was approximately 1:5 from 2002 – 2004, in the early phase of the program. As the program wore on, however, the number of total deaths increased and the number of HVT deaths decreased substantially, arriving at a rate of a single HVT for approximately 150 total deaths. Finally, according to a report by the London based, human rights group Reprieve, the search for 41, HVTs led to the death of 1,147 persons in Afghanistan, Pakistan, and Yemen, with total casualties standing at nearly three times that number. Of all those killed only 4% were the actual intended targets, the other 96% being unintended targets (whether low-level militants or other).²⁶⁹ Many of the so-called HVTs killed, were in fact, falsely listed as having been killed up to as much as seven times. Of course, these reports produced by the human rights group remain of questionable validity and must be examined with caution.²⁷⁰ Nevertheless, should such figures be confirmed this would be an alarming finding.

Additionally, more than half of those targeted and killed, according to the report, were not among the ranks of senior al Qaeda officials. Moreover, of the strikes which were launched, many were against groups (such as the Haqqani network) which were not yet officially designated as terrorist groups.²⁷¹ They were attacked as a matter of concern, for reasons of political expediency, a lack of accurate intelligence, or quite simply by tactical error. Even though the Haqqani network is replete with sordid and evil individuals that fact is not a justifiable legal basis for launching an attack.²⁷²

The nebulous and morphing nature of modern warfare often precludes a clear delineation, or an appropriate definition of exactly whom, or what is the intended target. Mary Ellen O’Connell, counters that, “The United States has an obligation to take feasible precautions to protect

civilians, such as providing advance warning of an attack; never attacking homes, or only attacking at night in open spaces. The author has found no evidence that the U.S. is taking precautions in Pakistan.”²⁷³ These sorts of precautions had, in fact, been previously implemented by the Obama administration. While Article 57 of AP I lists the precautions that parties must take whenever attacks may harm civilians. The assumptions on the part of O’Connell, are rather extreme in nature. While the United States, or any other belligerent State involved in armed conflict, has an obligation to take necessary precautions to avoid civilian casualties, the battlefield calculus, which weighs military advantage against proposed civilian harm, relies ultimately upon the judgment of the commander in the field. These points have been highlighted it is also worth noting that the protection of civilians is codified in Article 48 and 51 paragraph 2, as well as Article 52, paragraph 2, of API. Additionally, this rule, concerning the protections of civilians from harm, is also considered to form part of customary international law.

Guiora, for instance, emphasizes that “Operational decision-making is thus predicted on a complicated triangle that must incorporate the rule of law, morality, and effectiveness.”²⁷⁴ Effectiveness is *effectively* often overlooked as a criterion. This is important because realistically, war is not only an issue related to humanitarian concerns and reducing civilian casualties, but it is also one of strategic objectives and operational imperatives as well.

Fifth generation warfare or 5GW is a totally asymmetrical approach to warfare, where terrorists strike from random obscurity, and undefined and unseen drones respond likewise from the lurking shadows of distant anonymity. This type of indirect conflict is about as far as one can get from previous traditional state to state warfare paradigms, with large armies facing one another on open battlefields. The lines between what constitutes 3GW, 4GW, and 5GW remain

blurred according to varying criteria. Some authors are now even speaking of 6GW, where the enemy surrenders before a conflict even commences.

Perhaps the single most cohesive and convincing (at least at first glance) ethical argument against robotics and their use in modern warfare is that they tend to lower the barrier for resorting to armed conflict and replace the traditional diplomatic instruments. Singer recalls, “Lowering the bar to more and more unmanned strikes from afar would most resemble the so-called cruise missile diplomacy of the 1990s.”²⁷⁵ Indeed the cruise missile diplomacy of which this Singer refers to has morphed into an unbridled strategy of strong-armed intervention and short-sighted conflict resolution. It was a failed policy exemplified by lackluster operations such as that witnessed during Operation Infinite Reach, on August 20, 1998, in retaliation for the U.S. embassy bombings in Africa, where there were few positive results achieved. Such powerful responses fell victim to political constraints, while simultaneously being plagued by less than perfect technology, which in turn, relied upon even less precise intelligence.

This reasoning and view, that of technology facilitating armed response, is heard across a wide swath of opinion. Brunstetter and Braun underscored this inherent paradox related to drone warfare—and that is, that while drones eliminate the need for troops on the ground and, thus the resort to large-scale warfare, simultaneously they tend to facilitate the recourse to armed conflict more easily due to this perceivable advantage.²⁷⁶ The reason for this ethical transition and the associated dilemmas that it poses is quite simple: The more the factors of risk and danger are reduced, the greater the propensity to call upon lethal force as a solution. This is a simple cost-benefit analysis, which replaces a strategy with a tactic. The traditional “brake” on going to war—the actual risk and cost of conflict—are removed in the case of UCAVs. There is an ironic tension, created by the expanded use of drones. The public, which largely approves of the drone

strikes, since they keep the horror of war at bay, by the same token, paradoxically calls for greater scrutiny and clarity surrounding the use of these weapons.

In defense of critics of this technology, this is a very convincing and strong argument, however, it is only fair to point out that the conflict in question preceded the acquisition of this technology and will continue with or without it regardless. The trend in strategic warfare has always been aimed at minimizing the possibilities for sustained casualties, and since UCAV technology fulfills this requirement it is not only coherent to adopt it as an instrument of warfare but also ethically defensible. Removing this technology would substantially raise the risk to personnel while increasing the possibility of deeper and less discriminant military commitment. An argument might even be made that the use of such complex technology reduces the risk of going to war. Since insurgents are aware of their limited impact, resources, and overall opportunities for success, they may take greater reflection prior to engaging in hostilities where they are outmanned technologically and strategically. This aspect of enhancing the chances of success in armed conflict is an integral component of the Just War tradition. Elshain cautions, “Be as certain as you can, before you intervene in a just cause, that you have a reasonable chance of success.”²⁷⁷ This is, of course, one of the important *just war* principles.

Guiora’s active involvement for over 20 years in counterterrorism and covert operations has afforded him a unique and measured view. When interviewed, Guiora spoke of the balance between strategic considerations, diplomatic effectiveness, and legal ramifications behind armed drone usage. Guiora stated that “The drone campaigns are lawful *but...*” He then clarified this caveat by explaining that this does not necessarily mean that they are always the wisest choice and that they must be used in accordance with the rules of law, including the avoidance of excessive noncombatant casualties, just like any other type of weapons platform.” He continued

by further acknowledging that “Drone attacks are and can be effective *but...*²⁷⁸ again elucidating his position that they can be effective; however, they must be employed as a tactical source of force and not as an isolated strategic concept. It is also vital to know exactly when, where, and how they might be strategically employed as opposed to their unfettered use.

Military leaders, generally, are not fond of the strategy of targeted killing. As Zenko aptly iterates, “Senior military officials prefer comprehensive strategies to resolve the long-term problems posed by the group or state to which the targeted individual belongs, while civilian officials are willing to use force for the potential short-term gain of eliminating a threatening individual. In addition, military officials are also less likely than civilian officials to believe that targeted killings will succeed militarily.”²⁷⁹ It would seem a wiser proposition to have the military making the strategic decisions about which they are better informed, as to the impact and consequences of operations, than political appointees with limited mandates and even more limited understanding of military strategy. To be fair, it must be borne in mind that civilian policymakers, make their selection from a list of options initially developed by senior military officials, even if it is the civilian policymakers who ultimately decide that military intervention is necessary in the first place.

Regardless the decision-making process, there remains the inherent question of legitimate liability of the intended target, and this in the case of any attack, including that of targeted killing, which is merely an alternative instrument of tactical prosecution. As Jeff McMahan so eloquently points out, it is that by causing harm and forfeiting their noncombatant status that the objects of lethal force have become liable to attack; both ethically and legally. Walzer echoes this perspective throughout his seminal contribution. While speaking on the principle of necessity and the liability of the enemy combatant Walzer states that “He can be personally

attacked only because he is already a fighter. He has been made into a dangerous man, and though his options may have been few, it is nevertheless accurate to say that he has allowed himself to be made into a dangerous man.”²⁸⁰ or “a justification grounded in liability” in the words of McMahan.²⁸¹

The first contention, that of justified liability, is also addressed by Adam C. Gastineau, in his *Key Concepts in Military Ethics*. Here the author lucidly points out two basic justifications for targeted killing, which are the *ex-ante* and *ex-post* justifications. *Ex-ante* justification is a targeted killing, based upon liability of an agent due to an immediate or future threat posed, by the intended target of lethal force; whereas, *ex-post* justification relies upon an event which has occurred in the past, and according to the view of Gastineau, quite correctly, is tantamount to revenge, or *lex Talionis*—an eye for an eye justice,²⁸² which is totally unacceptable both under the tenets of the Just War tradition and international law.

Nevertheless, I would present a counterargument in which *ex-post* justifications are indeed not only acceptable and justified, but also morally sanctioned. A simple manifestation of this principle can be seen in the congressional Authorization for the Use of Military Force (AUMF) passed in 2001. This legislation essentially authorized the hunting down and elimination of those entities related to, or responsible for, the unparalleled attacks of 9/11. As a result, we are faced with an ethical conundrum. How do we separate the desire for revenge from the search for justice, and to an even greater extent the guarantees of self-defense? The simple answer is that we cannot. We must, therefore, rely upon an alternative calculus to determine the moral and legal acceptability of targeted killing under an *ex-post* justification. The fact is that any desire for revenge is subsumed and satiated under the criteria of self-defense. This premise only remains

legal and ethical, however, insofar as the attacks are directed against those entities directly responsible for delivering or developing threats to national security.

Here I would posit that there are two essential and interlinked criteria which apply in such a case: a binary spatio-temporal and imminence consideration, and an impact or consequence consideration. As these factors increase in relevance the justification for *ex-post* targeting increases to legitimate levels and becomes not only legally permissible but also morally incumbent. We should recall that the first obligation of a State is to provide security to its population. Thus, the imminence (I) of any projected event in combination with spatial considerations of actual physical and ‘strategic’ (if relying upon proxies for instance) distance (D) of the perpetrator/intended target, must be balanced by the impact that a future attack will hold and its resultant adverse consequences (I/C), which will or would result in the event of a future attack. Any such intended target will have already proven capable of inflicting further damage to vulnerabilities (V) and looms (intent) as a persistent threat (T), or a risk to national security and public safety. The calculus can be evaluated, and this threat can be countered through several alternative mitigation strategies, including capture and targeted killing (TK). Here we can detect the close relationship entertained by the concepts of self-defense and its adjacent response that of targeted killing.

Given these considerations, targeting such a threat using anticipatory self-defense, considering past events, and in defense against future events, should be both legally and morally permissible. Gastineau seems to concede, if not the point in question, at least the conundrum when pointing out that, “...the question remains whether or not those targeted in cases that are not cases of ‘warfare’ are targeted on the basis of their liability resulting from their status as combatants, or because of past wrongs [hence objects of punishment].”²⁸³ This view has been

shaped by adopting a Security Risk Management Process (SRMP) perspective. Note that Ex-Post considerations refer to actual results and knowledge as opposed to forecasted events. Ex-Post events are based upon objective facts. Refer to the diagram below.



Figure 4© James P. Welch 2018.

Target Discrimination

On an individual level, there is the question of target distinction. Target distinction, according to Kevin Heller and others, is the foundational principle and the jewel in the crown of international humanitarian law. The rules relating to target discrimination are clearly outlined under Geneva Convention Additional Protocol I, Articles 48 and 51.²⁸⁴ The inherent risk must be measured against the possible consequences in each case. For instance, how does one differentiate between a combatant (especially from drone captured imagery) and an individual who is *hors de combat* from one merely momentarily stunned? In the same vein, how does the drone operator distinguish whether a person is rushing to the aid of a fallen fighter, or running to retrieve the weapon and resume combat? It thus becomes clear that, whether rules of engagement (ROE) or

no rules, each case is specific, reaction-based, and the interpretation depends upon the discretion of the operator and the proportion of risk involved. There has been a great deal of latitude and discretion afforded to troops to interpret what constitutes “hostile intent.” For instance, the *Harvard Negotiation Law Review* noted in their background and source sheet on hostile intent that:

U.S. Standing ROE (SROE), issued by the Joint Chiefs of Staff, permit U.S. forces to use lethal force in self-defense against individuals who commit hostile acts (for example, firing at troops) or demonstrate hostile intent (something less than a direct use of force). However, in Afghanistan, U.S. and ISAF troops appear to interpret hostile intent broadly, leading to the killing of civilians not directly participating in hostilities or otherwise demonstrating any hostile intent and therefore protected from attack under international law. In many cases, non-threatening behavior by non-combatants – picking up a cell phone, running away from the scene of an attack, or going to help a family member who has already been shot – is frequently interpreted as ‘hostile intent’ by U.S. forces justifying the targeting and use of lethal force against such civilians.²⁸⁵

The development of such broad interpretation is part of a spiraling cycle of action-reaction response, based on asymmetric inequality. No clear and concise definition of what *intent* entails, outside of a direct threat has been, so far, forthcoming. Intent is closely related to anticipatory self-defense and can be seen on a sliding scale of importance, as indicated in Appendix I.

When considering the definition and questions surrounding target discrimination and civilian casualties. Keifman recalls that “Currently, concerning drone strikes, what constitutes an

indiscriminate attack lacks definition.”²⁸⁶ The assertions of Travalio and Altenberg are no less relevant. Their trenchant statement, “The combination of the law enforcement approach where appropriate, and the use of military force, where justified, should serve the community of nations well in the fight against global terrorism,”²⁸⁷ echoes the premises and recommendations made during the development of the current research.

Bearing in mind the responsibilities for the State to conduct war with humanitarian awareness, Guiora emphatically asserted that, “...the state has both the right to engage in preemptive self-defense and the obligation to protect its own innocent civilian population.”²⁸⁸ These perceptions must, however, be nuanced by the constraints of the respect of the laws of war in conjunction with a call for enhanced and more flexible doctrine regarding modern warfare. It is, after all, the peculiar vagaries of the rules surrounding international humanitarian law which afford both sides the ability to be wrong, while, at the same time, remaining right. In other words, a party is always able to put advance a legal argument that they have the law on their side, i.e. that he is not violating IHL although it is in fact the case.

Holewinski formulates the following recommendation, “On both ethical and strategic grounds, the United States should turn what it has learned about saving lives and dignifying losses into standing policy.” This appears to be very sound advice and worth incorporating into the ethical framework of the current drone policy; something that was sorely lacking under the previous Obama administration. The probing moral and ethical examination concerning precision munitions and the fallacy inherent in the Obama Doctrine²⁸⁹ also raises serious questions about national security policy and its relationship to IHL. One thing that was not shrouded in secrecy was Obama’s disdain for America’s foreign policy community, and leadership in the Middle

East. In relation to the shortcomings of the drone strategy, Kreps and Kaag made two memorable points for policy makers to bear in mind:

- The legitimate definition of targets may not be answered by technologically precise munitions, and secondly,
- Undefined and imprecise goals lead to vague, undefined target discrimination and an ultimate lack of legitimacy.

Asa Kasher makes an interesting suggestion on the moral justification of target distinction. According to Kasher, the question should not rely so much upon combatant status or noncombatant status, rather upon the actual *level of involvement* in the specific conflict. I believe that here Kasher is attempting to clarify the separations between those who materially assist and those who actively contribute to the efforts of the enemy. If this is the case this is clarified by IHL. IHL defines targetable combatants as either members of the armed forces of the enemy, or civilians directly participating in hostilities. Kasher further clarifies “Rather than using a concept of combatants that blurs a variety of morally important distinctions, one can introduce a scale of involvement in hostilities that does not blur such distinctions.”²⁹⁰ Kasher thus, makes a clear distinction between those with direct involvement at the tactical, operational and strategic levels as being legitimate targets. Importantly, Kasher also emphasizes the importance of clearly identifying the targets based on solid evidence and intelligence.

This is something that was a marked shortcoming in the approach of the previous administration’s drone strategy. Charlie Carpenter also appears to adhere to this view, “Even if no new laws are developed in the near future, military planners, government officials, and lawyers could reduce civilian casualties by simply modifying their interpretations of existing

legal doctrines. To begin, clarifying the notion of what constitutes direct civilian participation in hostilities would help states more accurately judge when civilians remain protected and when they have lost their immunity.”²⁹¹ This is an important distinction and a vital insight which should be considered in the drafting of any new legislation concerning TAC. The vagaries of war must not give way to vagary in legislation.

Target distinction has been one of the most troublesome aspects behind the aggressive drone campaign. Guiora and Blank insightfully note that “The notion of counterterrorism as self-defense against imminent threats of harm means that the state *must know*, in a detailed manner who poses such a threat, in what circumstances, and how and when such persons can be targeted.” They further emphasize that “This information and analysis lies at the heart of the legitimate target determination (original authors’ emphasis).”²⁹² The intelligence supporting the identification of High Value Targets (HVTs) has often been, weak, misleading, incomplete, or in some cases entirely incorrect. With targeted killing almost is simply not good enough. The question of who gets targeted, and for what reason, remains veiled largely in mystery. There has been a significant lack of clear and precise organizational intelligence, network topography, or link analysis. In other words, it has been difficult to ascertain the actual position and importance of most figures within the terrorist hierarchy, even though they are designated (correctly or incorrectly) as High Value Targets (HVTs).²⁹³ Jane Myers in her well-known article, for example posited that “The history of *targeted killing* is marked by *errors*.”²⁹⁴

Peritz and Rosenbach echo this insight, “As with Abu Faraj, US counterterrorism analysts could not determine with much degree of precision Abu Hamza’s [Muhammed Rabia Abdul Halim Shuayb] actual position within the organization.”²⁹⁵ These lacunae were somewhat mitigated in 2007 with the introduction of The Protect America Act. This instrument offered the

intelligence community greater flexibility and insight into the organization's structure and communications. It was also at this time that the MQ-9 Reaper, with more than eight times the effective range and more than double the speed of its Predator sibling, entered service and greatly enhanced the technological, ISR, operational and targeting capabilities of the U.S.

While Obama has insisted on strict civilian control of operations, during what has been labeled "Terror Tuesdays," where a select cadre choose future targets for eradication, he had been paradoxically far less forthcoming on the counterpart to civilian control—that of oversight and transparency. Despite the fact that there is no absolute requirement for transparency under IHL, this was a core criticism of the way the campaign was conducted by that administration.²⁹⁶ Journalists, from McClatchy DC news, obtained access to classified U.S. intelligence reports covering the periods 2006-2008 and 2010-2011 the most intensive periods of UCAV activity. Their findings were not encouraging.

The use of force, which includes targeted killing at the level of domestic legislation, is permitted the Authorization for Use of Military Force (AUMF) Resolution of 2001, it specifically relates to senior al Qaeda officials and leaders, the perpetrators and individuals who assisted in the attacks. When the targeted killing takes place outside the zone of armed conflict then the legal regime of IHRL is applicable. The problem is that after more than 15 years of warfare, and the elimination of many from the al Qaeda leadership, the AUMF is beginning to show its age and is a bit thin on the ground as a result. I find it particularly perplexing that a newer more tailored resolution has never been achieved in the interests of good governance despite numerous efforts to do so.

This is particularly troubling if we consider the announcement (at the time of writing) concerning US Federal budgeting as reported by www.bga-aeroweb.com, “In FY (Fiscal Year) 2016, the DoD expects a sharp increase in the number of Hellfire missiles purchased. The DoD plans to purchase a total of 5,950 missiles for the Air Force (5,567) and Army (383) Procurement funds in the amount of \$769.2 million have been allocated to the program. Multiple variants (K, L, M, N, P, R, R-2, R9B, R9E etc.) of the AGM- 114 Hellfire missile may be procured.”²⁹⁷ This works out to an approximate unit price of \$129,250.00 per unit an increase of about \$30,000 per unit since the previous fiscal year.

In purely economic terms, if the U.S. is Hell-bent on using Hellfire missiles to eliminate lower level insurgents, then this does not represent a very sound cost benefits spreadsheet. On a more practical military and diplomatic level, it is not a wise strategic approach either. Note that while the missiles are quoted as being destined for the U.S. Air Force and U.S. Army, there are others destined for the U.S. Navy as well. The increase is dramatic according to any calculation, rising from 1,792 in FY 2015 to a whopping 5,950 in FY 2016. Of course, this does not include the secret budgeting for the CIA program either, which logically must also be substantial.

The McClatchy report found that 265 of the 482, or more than half of the people, reported killed by the CIA, were not senior al Qaeda leaders rather had been “assessed as Afghan, Pakistani or unknown extremists.” Of the estimated 95 strikes during the stated period 43 or just less than half struck at groups other than al Qaeda.²⁹⁸ During my own deployment I remarked that there was a greater tendency to target individuals who no longer met the original targeting criteria according to the standing rules of engagement . Rosa Brooks pointed out, back in September of 2012, that, “...this is precisely what has been happening over the past four years. Increasingly drone strikes have targeted militants who are lower and lower down the terrorist

food chain, rather than terrorist masterminds.”²⁹⁹ While there is absolutely no legal proscription on targeting militants, the question then becomes, although permissible is it wise?

Peritz and Rosenbach caution that “This ‘target creep’ is dangerous and its implications are dizzying. There must be a sober discussion in America to determine whether this road is worth traveling down in the future, long after al-Qaeda is dead and gone.”³⁰⁰ There are ethical, legal, economic, and political reasons, which cast a large shadow of doubt upon such policy. The threat response calculus to such an equation is certainly flawed when. “Individuals who don’t represent an imminent threat in any meaningful sense of those words are redefined, through the subversion of language, to meet that definition,” as remarks Edward Snowden.³⁰¹

One of the fundamental principles debated, yet never clearly elucidated, surrounds the vital question of whether drones are effective in reducing terrorism and achieving the desired goals of stabilization. As with most other areas we have discussed, concerning drone warfare, there are two schools of opposing thought. These arguments are reflective of the previous conversation concerning leadership decapitation strategy. There are, first, those who affirm that they are an effective means for curbing violence, reducing attacks and securing stability. But secondly, the opponents argue just the inverse, i.e. that violence, in fact spikes and increases because of drone strikes and targeted killing of militant and political leadership.

Much of the success lies in measuring the coercion coefficient. In other words, getting the enemy to do what the belligerent desires. In a fascinating article, published in the *Perspectives on Terrorism* series, these phenomena are examined and clarified by Charles Kirchofer. Kirchofer, like many other researchers, considers that terrorists (suicide bombers in particular), work upon the Rational Choice Theory (RCT), that is they make a cost-benefit analysis in

relation to the achievement of their goals. Similar in concept to the theories endorsed by Skinnerian psychology, aversive behavior is avoided due to a lack of rewards.³⁰² Terrorists have a specific logic all their own, which is largely based upon strategic concerns as opposed to the rational logic of the general population.³⁰³

In his article Kirchofer explains that it is vital to adopt a multivariate approach when examining the efficacy of targeted killing. There does not appear to be any clear-cut, direct cause and effect correlation between targeted killings and the frequency of terrorist attacks. There are, however, several intervening factors which must necessarily be taken into consideration. These variables do play a role, in both the efficacy of the strikes and the response by the enemy, as a direct consequence.

First, there is the consideration of whether the strikes are seeking a goal of deterrence (maintaining the status quo) or compellence (causing a radical change of behavior). Secondly, there is the timing within the cycle of escalation, which plays a significant role. As shown in the previous analysis by Brian Price the earlier leadership decapitation occurs the more likely there will be an impact on group mortality. According to Kirchofer, attacks conducted during relatively peaceful periods tend to result in a more prolonged and stronger retaliation. Third, there tends to be a difference of degree in the response to the attacks depending upon whether the target is a militant or political leader. Finally, there is the force of the strike. For it to be truly effective it must be largely disproportionate in response to the initial cause.

We must remember that proportionality is a flexible criterion, established by the individual commander. This being said, there do exist limits when comparing the potential military advantage to be gained when compared with eventual civilian harm. This is clearly defined under

Additional Protocol I, articles 51 and 57. Nevertheless, these limits are not strictly defined and there exists a measure of reasonable flexibility built into this principle. Different commanders will have different opinions concerning the strategic value of a military target and the resultant civilian damage. However,, such lack of clear boundaries could, initially at least, to contravene the fundamental principle of proportionality as enshrined within IHL. Each situation is novel and therefore the flexibility applied in one situation may not be suitable for another. This is another reason, as I have noted elsewhere, that there is a compelling need to reexamine IHL and to adapt or restructure the rules, contingencies, and constraints to better suit the highly irregular nature of 5th generation warfare and the transnational nature of the modern battlespace. Kirchofer sees the question of efficiency as being based upon the presumption of coercion, of getting the enemy to do what one wishes.

Coercion is strategically structured either as deterrence, where the attacker aims to have the enemy cease a certain behavior or activity, and compellence, where the attack is meant to have an enemy feel futility and an obligation to change, thus a more strategic middle-term outcome. It should be noted that, for several different reasons, compelling an entity into a situation is far more difficult to achieve than deterring them. Kirchofer reminds us that "...the actual use, as opposed to the threat of targeted killing is compellent, not deterrent."³⁰⁴ Finally, a very important distinction is drawn between combatting an insurgency (which is a political creature at its roots) and that of a terrorist organization, which is millenarian and nihilist in its conception. Terrorist organizations, as opposed to political ones, do not wish to alter or change a government, rather their goal is to eradicate it and replace it completely.³⁰⁵ Marginal coverage of the ethical, legal, moral and overall strategic and political efficacy of targeted killing, as a strategic tool, has been provided here to offer the reader a basic understanding. Indeed, entire

volumes of research are now dedicated solely to these precise topics. As interesting as these findings and their related research are, we must pose the question can they be generalized as an applicable theory and thus, extrapolated to other actors and theaters of conflict?

Personality and Signature Strikes

When considering the question of legitimate targets, Guiora recalls, “Two central questions with respect to operational counterterrorism are *who* can be targeted and *when* can the identified legitimate target be legitimately targeted.”³⁰⁶ This observation raises a highly problematic issue when considering that, according to the laws of war, fighters are obliged to wear distinctive emblems which can be recognized at a distance. Neither terrorists nor members of the CIA wear such distinctive emblems. In some cases, members of special units have also resorted to wearing traditional tribal garb or have eliminated any identifying insignia.³⁰⁷

The CIA has adopted two different strategies related to targeting. The first is the use of targeted killing for the conduct of *personality strikes* of individuals designated on kill lists; what is referred to as *high value targets*, or HVTs; targets who pose an immediate threat to national security while the second, known as a *signature strike* is far more controversial. The latter refers to targeting unknown individuals based on a pattern of suspicious behavior and is much less precise than the first (which is already a controversial approach).³⁰⁸ Currier and Elliot point out that, “The first public reference to a signature strike appears to have been in February 2008, when *The New York Times* reported a change in drone strike policy, negotiated between the U.S. and Pakistan.”³⁰⁹ It is worth noting that signature strikes are not, by definition “targeted killings.” Regardless the terminology adopted, however, this type of “strategy,” is widely used and highly criticized.³¹⁰ Personality strikes, directed against specific high value targets (HVTs), have not

raised much criticism, compared with the controversy surrounding other signature strikes. Therefore, the thrust of this section will concentrate upon the latter tactic.

Alan Fisher reporting for Al-Jazeera commented, that administration officials (according to a report by the *Washington Post*), admitted approving the controversial signature strikes in Yemen on Thursday, April 27, 2012. The tactic has evidently been employed since at least as early as 2008 when the first reports of this activity appeared in the press.³¹¹ The strikes can be based upon nothing more credible than suspicious behavior, or intercepted telephone communications, known as their *intelligence signature*.³¹² Not content with these enhanced powers the CIA and U.S. military also petitioned the Yemeni government for permission to expand their reach; a request which was subsequently refused.

According to an article published in the Wall Street Journal in April 2012, “The CIA and JSOC asked last year for broader targeting powers, however, which would include leeway to conduct what are known as ‘signature strikes,’ in which targets are identified based on patterns of behavior, such as surveillance showing they are transporting weapons.”³¹³ In April of 2012 Al Jazeera also reported “The Washington Post, quoting administration officials, said on Thursday that the U.S. president approved the use of ‘signature’ strikes this month,”³¹⁴ thus reconfirming the initial report by the Washington Post.

In reports by the *Bureau of Investigative Journalism*, a combined study conducted by legal teams at New York and Stanford Universities and statements by Christof Heyns, UN rapporteur on extra-judicial killings, it appears that the CIA has upped the ante by quite possibly using follow-up strikes on mourners at funeral services. This rather cynical observation has never actually been confirmed. This information has been kept close to the breast and although not

beyond the scope of being plausible, is difficult to corroborate or substantiate. Such accusations have led the UN to organize further investigations under the aegis of the UN Human Rights Council (HRC).

Criticism has been leveled at the agency, some no doubt justified, much of the criticism, however, is most likely exaggerated and unwarranted. “A thorough review of the arguments against the CIA drone campaign, however, shows that most critics invoke laws that do not bind American officials or laws that are vague,”³¹⁵ assert Radsan and Murphy. There were considerations within the administration (at the time of writing) concerning the eventual transferring of drone operations from the CIA to the Pentagon. It is important, however, to recognize the efficiency and precision of this organization and avoid rashly distributing caustic, unfounded criticism of the unknown, and by doing so biting the proverbial hand which protects.

It is worth clarifying that many of the critics of the signature strikes have based support for their opinions upon the Geneva conventions additional protocols I and II (particularly Protocol I), and while the United States generally abides by these rules, they are merely a signatory to Protocols I and II, and they have not acceded. The treaty has never been ratified by the U.S. government. Nevertheless, there are elements enshrined within the Protocols which have passed into international customary law, and hence must be respected. Bearing these caveats in mind, it is interesting to examine some of the details of signature strikes. Signature strikes) are conducted according to the same rules as any other tactical engagement. They require two specific conditions: that the combatant being targeted is either a direct participant in hostilities (DPH) or maintaining a continuous combat function (CCF). To be clear, signature strikes—a descriptive term, are technically not considered targeted killings. The fact of targeting military aged males, who are not wearing distinctive markings, no uniforms, merely for being suspect is,

however, a violation of the laws of armed conflict. If they are not directly supporting hostilities, this is a violation, under the Fourth Geneva Convention, of the protections afforded to all civilians who are not directly participating in hostilities. Additionally, this would be a violation of Article 51, paragraph 5, of AP I, and Customary International Rule 14, whereby “Launching an attack 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 the concrete and direct military advantage anticipated, is prohibited.”³¹⁶ While there are no treaties relating to this the ICRC does provide interpretive guidelines on the notion of DPH. There are three specific criteria for qualification to wit:

1. There must be a minimum threshold of harm and this must be passed
2. There must exist a direct causal link between the act and the harm
3. There must exist a belligerent nexus or, in other words, support to a party in the conflict³¹⁷

Kevin Jon Heller laid out a very interesting, in-depth and precise analysis of the various legal aspects of signature strikes under both IHL and IHRL. Heller points out that, for signature strikes to be legal under the precepts of IHL, they require two supporting requirements: The signature must be validated and qualified as sufficiently responding to the prescribed identification criteria, and there must be sufficient supporting evidence to authorize such a strike. Like many other scholars, and as indicated throughout this text, it is evident that the evidence requirement remains murky and undefined due to U.S. national security protocols and the secrecy surrounding such attacks. Heller, relying upon various sources such as the media and official public pronouncements, cleverly breaks down the signatures into 14 separate parameters. The last point was deemed incorrect and not included. These are, in turn, categorized under three separate,

distinct legal classifications: “*legal Adequacy of signatures, legally inadequate signatures, and possibly adequate signatures.*” Heller’s model, well worth examining in greater detail is presented here modified by several additional comments, observations, and clarifications:

1. Legal adequacy of signatures: this has been broken down into what are considered 5 acceptable parameters according to IHL.
 - Planning attacks: This principle could be applied to the strike against al-Awlaki for instance due to his proven direct involvement with planning attacks against the U.S.
 - Transporting Weapons: there is a distinction here, under IHL, that this principle requires greater target discrimination. Transporting weapons is not the same as merely being armed. This later condition [being armed] does not qualify as a parameter for individual targeting. Transporting weapons does, however, designate the target as a legitimate military objective.
 - Handling Explosives: No questions here as to the validity of those involved being considered as legitimate military objectives.
 - Al Qaeda Compounds: The only caveat here is the typical rule forbidding the targeting of public service infrastructures such as hospitals and places of worship. Perfidy, for instance using an abandoned school, as a bunker, or a mosque as a fortified emplacement. A strategic tactic often employed by insurgents, this automatically lifts such a ban against retaliation. If there are still civilians present,

then the question of proportionality arises, and the justification lies in the consequence of the military advantage to be obtained.

- Al Qaeda Training Camp is a legitimate military objective (LMO).

2. Legally inadequate signatures: The following constitute 4 signature characteristics which have been reportedly used by the U.S., but which are banned under IHL.

- **Military-Age Male in Known Area of Terrorist Activity:** Certainly, one of the most controversial, if not indefensible, principles currently practiced under the previous administration. Despite the highly accurate (many have questioned this assertion) optics, used to identify individuals, there have been many errors and collateral victims. How is it possible from such a distance to adequately indicate the difference between a 15-year-old boy, who may be tall for his age, and a 30-year-old terrorist on the ground? Additionally, there is an inherent ethical and moral problem, if an individual is being targeted because of his sex and age and not for any specific tactical criterion. Heller succinctly points out, “These signature strikes have been widely criticized and for good reason—they are plainly inconsistent with the principle of distinction.”³¹⁸
- **Consorting with Known Militants:** While it is quite possible that individuals who do choose to keep company with terrorists and insurgents may become victims of collateral damage, they cannot be legally targeted merely due to the fact of their association. Again, Heller clarifies that consorting with, or frequenting such individuals, in no way confers legitimacy to strike, since this action does not even rise to the level of indirect participation by rendering assistance, or support in any

way. This would be tantamount to guilt by association and fails to meet the direct participation in hostilities (DPH) requirement. Under no circumstances are collaboration, sympathy, or even passive support acceptable criteria for targeting individuals under IHL.

- **Armed Men Traveling in Trucks in AQAP-Controlled Areas:** Heller compares this feature with the male of military age model, with weapons thrown in. This position, however, becomes less tenable when compared against an unarmed male of military age, in my opinion. For these men to be, legally and justifiably, targeted evidence must exist indicating that they are committing targetable actions such as: being part of an organized armed group, transporting weapons, explosives or heading toward a zone of active combat. As an interesting side note, Heller points out that Israel does not consider possession of a weapon to be an automatic loss of protective status. Therefore, to summarize, possession of a weapon does not, in and of itself, constitute legitimate grounds for targeting an individual.
 - **Suspicious Camp in AQ-Controlled Area:** This provision is generally taken under consideration of Geneva Convention Additional Protocol I, concerning the safety of civilians and their infrastructure as discussed elsewhere. Where doubt exists IHL falls on the side of caution.
3. **Possibly adequate signatures:** This represents the third and final legal category as presented by Heller.

- **Groups of Armed Men Travelling Toward Conflict:** This remains, however, a case dependent clause. Probably one of the more questionable regulations, it seems rather logical that a group of potentially armed insurgents headed toward a battlefield might be legitimately targeted. To do otherwise is to invite disaster. According to IHL, however, they must be participating as an integral part of an operation or specific action. There is no way of really knowing their intent; therefore, the burden is upon the belligerent. According to theory, should the U.S. have confirmed evidence of their intent, such as HUMINT or SIGINT, then they do not have to delay in their targeting and are permitted to authorize a strike. Another intervening variable includes their distance from the zone of conflict. Quite obviously the archaic rules established for traditional battlefield warfare are outmoded and impractical when applied to new 4th generation, insurgency type conflicts. The adage “all roads lead to Rome, (modified from the original: a thousand roads lead to Rome, or *mille viae ducunt homines per saecula Romam*)”³¹⁹ might aptly apply in this instance.
- **Operating an AQ Training Camp:** The camp itself is a legitimate target but the trainers, if they are to be specifically targeted, must be targeted under the provisions of DPH/CCF rule.
- **Training to Join AQ:** The standard Geneva Convention rule against attacking off-duty reservists is the only caveat against attacking in this instance.
- **Facilitators:** There are two types of facilitators, direct and indirect. Those involved indirectly: supply food, lodging or logistical support; aiding in escape,

financing, passing of propaganda, recruitment, creating weapons caches as opposed to those who take a more active role: acting as guides; gathering intelligence, providing ammunition. The former roles are considered “sustaining” acts according to IHL, while the latter qualify as DPH, and thus, by their active participation, qualify those individuals as legitimate targets. It should be noted that the term war-sustaining refers to objects and is not used refer to people.

The CIA: Where It All Began: Where It Is Now...

The super-secret shadow agency, which conducts targeted killings outside the zones of official combat, has become far less surreptitious during the current struggle with transnational terrorism. There has always been a love-hate relationship between the Pentagon and the CIA, despite their having worked together on several projects, notably the initial development of the armed predators themselves. The first documented use of offensive drones by the CIA is considered to have occurred on February 4, 2002. According to John Sifton, “The strike was in Paktia province in Afghanistan, near the city of Khost. The intended target was Osama bin Laden, or at least someone in the CIA had thought so.”³²⁰ A more well-known and widely publicized, attack was that carried out in Yemen, on November 3, 2002. The targets of the strike were Qaed Salim Sinan al-Harethi, aka Abu Ali al-Harithi a Yemeni national, and Kamal Derwish (Ahmed Hijazi), a naturalized U.S. citizen. The attack took place in Yemen’s Marib province. Three other al-Qaeda operatives were also slain in the attack. Since two of the targets were linked to the U.S.S. Cole bombing, and the vehicle attacked was part of a convoy, it is reasonable to assume they were also well placed within the al-Qaeda hierarchy. This was the first known instance of a U.S. targeted killing of an American citizen, during the campaign against terrorism.

This was a very significant event, as it marked the first use of force outside the established battlespace of Afghanistan. Significantly, there appear to have been Presidential Findings, (similar in legal standing to Executive Orders), under the George W. Bush administration, expanding the approval for targeted killing, to include terrorists connected to al-Qaeda.³²¹ Even were this not the case, the Harethi operation did not fall specifically under the heading of assassination. It occurred under the auspices of the AUMF, which specifically declares that the president is “authorized to use all necessary and appropriate force,” and could also have been ostensibly supported under the Covert Action Statute (CAS), 50 U.S.C. §413b.

Such widespread, *laissez-faire* application of the AUMF, as an excuse covering all actions, is quite worrisome and limits both the spirit and application of international law. The standing Executive Order 12333, barring political assassinations, does not prohibit targeted killing by the simple fact that a president may rescind the order (Executive Order) at any time of his choosing. If it had indeed stood in the way of the targeted killing campaign, it would have already been long gone. Despite the various justifications, which have been provided, there still tends to exist a cautious skepticism as evidenced by numerous requests from Congress for supporting opinions and reports on the topic of assassination.³²² Finally, President Bush signed into law a Presidential Memorandum of Notification (MON, equivalent in status to an Executive Order, or a Presidential Finding) authorizing the targeting of al-Qaeda members and associated terror networks on September 17, 2001.³²³

Mary Ellen O’Connell, writing on the Derwish strike, indicates, “On November 3, 2002, Central Intelligence (“CIA”) Agents in Djibouti fired laser-guided Hellfire missiles from a drone at a passenger vehicle in Yemen killing all passengers on board, including an American citizen.”³²⁴ The campaign has nevertheless, continued unabated with relentless precision, in a

program controlled by the CIA. “President Obama’s first known authorization of a missile strike on Yemen, on December 17, 2009, killed more than forty Bedouins, many of them women and children, in the remote village of al Majala in Abyan.”³²⁵

But who are flying these “Aethons?”³²⁶ As various investigations have divulged, it is members of the 17th Reconnaissance Squadron, part of the 732d air operations group, assigned to the 432d air expeditionary wing of the Air Combat Command (ACC). They have a long historical lineage and are based out of Creech Air Force Base in Indian Springs, Nevada. These facts were revealed in interviews during the documentary film, “*Drone*,” directed by Tonje Hessen Schei and released in April of 2014.

This raises some very serious issues concerning legal culpability and responsibility, as well as the blurring of lines between domestic law enforcement and military intervention, as outlined under titles 50 and 51 of the USC. Several former Predator operators spoke out in separate interviews. Brandon Bryant, in an interview speaking on the proposed transfer of CIA operations to the military, clarified that “There is a lie hidden within that truth. And the lie is that it's always been the air force that has flown those missions. The CIA might be the customer, but the air force has always flown it.”³²⁷ Operations begin in the United States and taken over from isolated bases abroad. There exist several stationary bases along the Arabian Peninsula, along with several maritime platforms as well. The main task force responsible for launching attacks is TF 48-4 according to secret documents leaked to the digital online magazine *The Intercept*. Their operational bases were situated in Nairobi, Kenya, Sanaa, Yemen and several in Ethiopia, including Arba Minch.³²⁸

As for the CIA's involvement in military operations, it is abundantly clear that they are not afforded the same rights and protections as members of the military, in fact, they are in the same category as that of their opponents. The OLC memo notes that, "It is true that CIA personnel, by virtue of their not being part of the armed forces, would not enjoy the immunity from prosecution under the domestic law of the countries in which they act for their conduct in targeting and killing enemy forces in compliance with the laws of war-an immunity that the armed forces enjoy by virtue of their status."³²⁹

This discussion will not delve into the complex legal morass surrounding the definition of what constitutes a "lawful combatant." Much ink has flowed concerning this oft-discussed elusive legal and academic topic and it has been broadly treated elsewhere in the literature. Landay, of *McClatchy* newsgroup, highlights the general dissatisfaction among critics; jurists and scholars, of the use of the CIA as a paramilitary force engaged in combat activities, "Obama they think, is misinterpreting international law, including the laws of war, which they say apply only to the uniformed military, not the civilian CIA..."³³⁰ Mary Ellen O'Connell has, for instance, argued out that, "Under the law of armed conflict, only lawful combatants have the right to use force during an armed conflict."³³¹ However, here the eminent scholar is only partly correct. The right to participate in hostilities equates to the granting of special privileges such as prisoner of war status and combatant immunity. It is not illegal for anyone to participate in hostilities, during IAC, however they do lose their civilian protects for such time as they actively participate in the armed conflict. In the case of NIAC, they can be held criminally responsible. According to international law the moment they lay down their arms and cease the hostilities their protections are reactivated. In the case of NIAC, they can be held criminally reasonable as it is the laws of the state which apply.

The use of civilian personnel and contractors does raise ethical issues as to their legitimacy and the rights to which they are entitled during their direct participation in an armed conflict. Some such as Gary Solis contend there is little distinction between the armed combatants of al-Qaeda and those engaged by the CIA. The question becomes even more of a slippery slope when considering the status of civilian contractors working for a civilian organization during a military conflict. Solis further makes the previously ignored distinction that, “While the guidance [ICRC handbook] speaks in terms of non-state actors, there is no reason why the same view is not true of civilian agents of state actors such as the United States.”³³² Hodge cites Loyola Law School’s David Glazer who states, “But employing CIA personnel to carry out those armed attacks...clearly fall outside the scope of permissible conduct and ought to be reconsidered, particularly as the United States seeks to prosecute members of its adversaries for generally similar conduct.”³³³ The drone strikes, conducted by the CIA, have been shrouded in the veil of secrecy which characterizes anything to do even remotely, with the question of national security. Kevin Jon Heller warns of the enormous legal difficulties, which would arise with any attempt to try CIA drone pilots for war crimes under IHL or crimes against humanity for murder under IHRL. There are formidable defenses which make this possibility unlikely.³³⁴

One related and highly topical issue includes the civilian status and attire. W. Hays Parks writing on the legal issue of the military wearing civilian attire cogently elucidates that “From a law of war standpoint, neither “force protection” nor a desire to distinguish soldiers performing “offensive duties” from those engaged in humanitarian assistance constitutes military necessity for soldiers to wear civilian attire in international armed conflict. From the enemy standpoint (particularly the Taliban and al Qaeda), humanitarian assistance to Afghan civilians may

constitute as much a threat as a soldier engaged in offensive operations.”³³⁵ In other words, there does not appear to be any strategic or operational advantage.

During my time in Afghanistan, many members of the CIA paramilitary and various private military contractors (PMCs) indeed wore US uniforms and identification. It was also common practice among both military and nonmilitary actors to wear civilian attire without distinctive emblems and an admixture of both civilian and military attire according to the prevailing regulations in force.³³⁶ Note that this practice had its origins during the first incursion into Afghanistan in 2001 following the events of 9/11 “This attire was not worn to appear as civilians, or to blend in with the civilian population, but rather to lower the visibility of US forces vis-à-vis [*Sic*] the forces they supported” writes Parks³³⁷ After carefully examining the legal contours of the question Parks goes on to state that “The GPW³³⁸ and its predecessors contain no language requiring military personnel to wear a uniform, nor prohibiting them from fighting in something other than full, standard uniform. Nor does it make it a war crime not to wear a uniform.”³³⁹

Arguments related to possible criminal liability and the public authority paradigm indicate that the CIA is not actually behind the kill process, but rather performs the target acquisition and provides the strike authorizations. In this measure, they remain, nonetheless, accountable according to certain scholars.³⁴⁰ Their attacks have, nonetheless, continued unabated and have increased both in number and intensity. The expansion of the lethal targeting to include American citizens has been the topic of heated debate.

The use of civilian operators is not the only conundrum relating to the legal, moral, and ethical aspects of counterterrorist operations and the use of drones in warfare. Schmitt also

highlights the important and often-overlooked fact that “Many worry that misconduct by civilian contractors may cause reprisals against uniformed forces. They also question the rules of engagement under which civilians operate.”³⁴¹ Precision in correctly identifying and carrying out strikes against legitimate designated targets is not only a requirement but also a military necessity. The CIA is rather new to this game and this leads O’Connell to speculate that, “The heavy involvement of the CIA and CIA contractors in the decisions to strike may alone account for the high-unintended death rate. Whether CIA operatives are trained in the law of armed conflict [LOAC] is a questionable point. There exist opinions on both sides of the question.”³⁴² During my periods of deployment to various FOBs in the Paktia and Khost regions of Afghanistan and other sites, I can attest that training in the laws of armed conflict were very limited. Long duty hours often precluded such training. This contention, valid on the surface, nonetheless requires qualification since many of the CIA operators are indeed qualified ex-military personnel as well; a fact often conveniently overlooked.

Yet there exist further issues which require clarification, nonetheless. As well-known author and scholar Peter Singer writes, “Similarly, C.I.A. drone strikes outside of declared war zones are setting a troubling precedent that we might not want to see followed by the close to 50 other nations that now possess the same unmanned technology — including China, Russia, Pakistan, and Iran.”³⁴³ This obviously raises a core question related to this research: *what are the limitations and boundaries on the use of drones?* At the same time, this foreshadows a vision of the expanded use of armed drones, as predicted in the first hypothesis; *the use of drones will become ever more prevalent in the modern battlespace.*

There is the question of a strategic approach to targeted killings. The CIA “hit list,” is an “in-house” project with apparently little control or oversight from anyone outside the Agency.

Radsan and Murphy complain that compared with military initiatives, "...the specific procedures for CIA targeted killing cry out for scrutiny and improvement."³⁴⁴ Although the Joint Special Operations Command (JSOC) and the CIA do have joint targets, an unknown number of targeted hits are exclusive to the CIA itself. The target list for the CIA remains hidden from disclosure, while that of JSOC carries the rather cumbersome and unwieldy title of, the joint integrated prioritized target list. Another significant problem discussed frequently throughout this research is the lack of transparency and accountability. Nowhere is this more evident than within the hallowed walls of the U.S. intelligence community (USIC). Jane Mayer emphasizes this lack of oversight, "...because of the C.I.A. program's secrecy, there is no visible system or accountability in place, despite the fact that the agency has killed many civilians inside a politically fragile, nuclear-armed country[Pakistan] with which the U.S. is not at war."³⁴⁵ Michael Walzer in his important work *Just and Unjust Wars* indirectly poses important questions which relate to the CIA's right to exercise lethal authority. Unfortunately, the silence of the response is deafening.

There is, additionally, the thorny question of Americans being selected as legitimate targets. From one perspective, there is the view that a democratic society, such as the United States, is not in the business of dispatching its own citizen's, at least not before having provided them with due process. Given the complexity of the current asymmetric conflict, however, should the mere virtue U.S. citizenship be enough to keep a belligerent enemy of the state (and by association democratic institutions themselves) from being targeted? John Yoo quite logically, seems to think not, "U.S. citizenship doesn't create a legal force field around Americans who treasonously join the enemy," he continues by citing the now famous, *Hamdi v. Rumsfeld* decision, "Citizens who associate themselves with the military arm of the enemy government...are enemy

belligerents.”³⁴⁶ Fighting on behalf of belligerent enemy forces makes an individual a legally viable target. Equal rights entail equal responsibilities. Yet it is essential that the evidence corroborating such treason be clearly defined, traceable, and well-established beyond a reasonable doubt. To profit from the protections afforded by the democratic process of due rights, an individual must also fully adhere to the laws and conventions of democratic society.

Collateral “Damage”

“But we can’t kill our way out of this mess.”

—Mitt Romney, *Final debate against Barack Obama; Lynn University* (22 October 2012).³⁴⁷

The concern for avoiding noncombatant civilian casualties, interestingly finds its origins, according to James Turner Johnson, in the interaction between Christian canon-based law, notably *De Treuga et Pace* (clarified more fully in this chapter) and the precepts of chivalry common to the knighthood of the middle ages. Thus, early modern *jus in bello* thinking was influenced by these characteristics of chivalrous action and right intention. Together these elements formed the foundations for protection of noncombatant immunity and were crystallized by Western tradition as early as the 14th century, including nascent notions of proportionality.³⁴⁸ It is important to stress that the conceptualization often failed to match actual implementation and practice.

By itself, the term collateral damage is highly misleading. Collateral damage is the measure of unintentional destruction, death, or injuries sustained by civilians following an attack. The concept of *damage* transmits the idea of something which can be repaired. The unending cycle of drone strikes as previously employed by the Obama Administration left little, if anything, to be

repaired. Such an unfettered application is certainly both politically and strategically counterproductive. "... the aggression of the targeted killing tactic mandates its measured use in only the most urgent and necessary of cases. The government's interest should be to tame violence, not exacerbate it. Where alternatives exist, they should be pursued, not just as a matter of law but also as a matter of sound policy."³⁴⁹ Blum and Heymann astutely commented. Meanwhile, Peritz and Rosenbach prophetically asserted that "... firing Hellfire missiles into dwellings in Pakistan without regard to civilian casualties—will undermine these methods politically and morally and make protecting US interests more difficult."³⁵⁰ Back at home the public remains largely uninformed, comfortable in their complacency, and harbor false illusions of safety.

The "war on terror" being levied abroad has only limited impact, acknowledgment and support domestically. For all intents and purposes, the public is entirely oblivious to the consequences of the current drone campaign, which fails to directly impact their daily lives. Mockenhaupt asserts, "People care less about what their government does when they are not asked to contribute."³⁵¹ There are many excellent sources available, in the peer-reviewed literature, which provide information concerning the complex issues surrounding targeted killing and collateral damage.³⁵²

Terrorism and collateral damage are not synonymous, though there are some that would attempt to equate them, that is collateral damage as a form of State-sponsored terrorism. While they both result in the loss of life, by innocent civilian victims, they should never be conflated. Caleb Carr pertinently and importantly remarks that, "It is important to note, while clarifying terms and definitions, that terrorist bloodshed is quite distinct from what many now label (often with utter disingenuousness) 'collateral damage'—that is, accidental casualties inflicted on

civilians by warring military units. While the former is deliberate the latter is entirely accidental.”³⁵³

It is certainly true that the selective use of UCAVs, may result in unfortunate, yet limited, noncombatant deaths. This is, however, quite often a regrettable, but direct consequence of human shielding. We shall also deal more fully with this phenomenon, later in the body of this work. Other possibilities contributing to noncombatant casualties include human error, weather, data or platform failure, and so forth. The difference is that, when properly employed, UCAVs are targeting—not innocent civilians—rather those guilty of having perpetrated, currently conducting or planning future atrocities. Individuals are selected are for targeting as a result of the threats they pose or their active participation in hostilities, not because of ideological differences, i.e., what they do, not what they say or think.

These targets subsequently make capture impossible, either by remote geographic isolation, harboring themselves among innocent civilian populations, or through armed and active resistance. In this way, it would be equally detrimental to both troops attempting capture operations and innocent civilians on the ground. This comparison illustrates the difference between the wanton destruction and random illegitimate acts of deadly violence, represented by terrorism, and the legal application of applied justice using robotic weapons. While the motivation for terrorism is the taking of lives, that of counterterrorism is that of protecting lives against future threats.

One of the most outspoken critics of the early drone campaign was Phillip Aston, the special rapporteur for the United Nations Commission on Human Rights (UNCHR). According to O’Connell, “In January 2003, the United Nations Commission on Human Rights received a

report on the Yemen strike [November 3, 2002] from its special rapporteur on extrajudicial, summary or arbitrary killing. The rapporteur concluded that the strike constituted a clear case of extrajudicial killing.”³⁵⁴ The drone campaign has nonetheless continued unabated and has even accelerated despite these numerous criticisms and warnings.

Collateral damage also came under international scrutiny and condemnation. Bi Mingxin of *Xinhua News* of China, reporting on a previous drone attack wrote, “The strike destroyed the compound completely and also damaged many other houses located nearby. Local people rushed to the site for rescue work as there was no official or private rescue service available in the restive region.”³⁵⁵ Putting the debate into ethical perspective, Bill Moyers speaking on, Juan Coles’ site, *Informed Comment*, asserts, “It brought us to grief in Vietnam and Iraq and may do so again with President Obama’s cold-blooded use of drones, and his seeming indifference to so-called collateral damage, otherwise known as innocent bystanders.”³⁵⁶ This is particularly applicable in the case of what is euphemistically referred to as a signature strike (discussed in detail within the body of this research).

RT journal, in 2011, warned that despite various condemnations, “As the U.S. continues its War on Terror, however, the deaths continue to add up.”³⁵⁷ The damage sustained is not only affecting the enemy, it has taken its toll both home and abroad. Amster submitted that “Despite the distance from their targets, drone operators are not fully immunized from the psychological effects of killing people by dint of their not-so-subtle deployment of Reaper and Predator technologies.”³⁵⁸ Indeed, whether the killing takes place up close and personal, or at a great distance the result remains the same.

Interestingly, those espousing a more pacifist view would have it both ways it seems. Critics of drone policies often show two faces of the same argument, which tend to invalidate one another; claiming that drones are incapable of accurately discriminating between targets and civilians, and, at the same time, capable of precise identification. O’Connell, for instance, poses the question, “But can drones ever be precise enough to comply with the rule of distinction in the situation of Western Pakistan?”³⁵⁹ Turse, another arch critic, replies, “...the [drone] cameras are so powerful the ‘pilots’ can reputedly watch the facial expressions of those being *liquidated* (my emphasis added) on their computer monitors ‘as the bomb hits.’”³⁶⁰ T. Mark McCurley, who was actually involved in Predator operations and had the benefit of actual experience, clarified the question of optical precision, “We were required to have a long standoff from the target. This limited our chance of being detected. But it also degraded the optics so that facial recognition was impossible.”³⁶¹ So, while the optics used are indeed of a high precision—theoretically enough so to confirm facial recognition—such precision is dependent upon many variables including, operating conditions, movement, ambient light, optical calibration and the standoff distance, to mention but a few. Deciphering individual facial expressions may be a future possibility, however, for the present, it stretches reality.

Careful examination of such statements indicates the inherent contradiction of such reasoning. The official government position has been that the precision targeting offered byUCAVs armed with Hellfire missile (not bombs) strikes is so precise, as to limit collateral damage to far more acceptable levels than say using 500-pound laser-guided munitions (bombs). This is also the position of the current research and appears to be a logical conclusion. The alternatives to using laser guided munitions are certainly a far less attractive option.

Occasionally, there have also been inaccurate views and questionable statistics reported. Amitai Etzioni, for instance, cites the case of Syed Munawar head of the powerful Pakistani Islamic party, Jamat-e-Islami as (alternatively, Jamaat-i Islami) claiming a rate of *nearly 100 percent innocent civilian casualties* (my emphasis). Etzioni also pointed to an article which appeared in *The New York Times*, authored by former military officers, David Kilcullen and Andrew Exum, which made the dubious and convenient claim of 50 civilians killed for each militant.³⁶² But it is not only critics who are throwing out questionable and suspicious figures.

Etzioni also remains circumspect as to claims, made to *The New York Times*, by former National Security Advisor, John Brennan that, “there hasn’t been a single collateral death because of the exceptional proficiency, precision of the capabilities we’ve been able to develop.”³⁶³ While the accuracy of the weapons platform may well be precise, the differing, all-or-nothing, claims are doubtless less so. Such expansive declarations and drastic percentages of clear-cut figures do not reflect the reality on the ground and should certainly lead us, to speculate as to their validity. Regardless, the numbers reported on both sides of the debate are drastically different and are, therefore, unreliable. As for the numerous research organizations that report on the effects of drone warfare, their findings are, quite unsurprisingly, most often situated between the extremes of Brennan and Munawar. Like the debate over drone warfare, the true answer doubtlessly lies somewhere in-between.

Noel Sharkey, a most vociferous opponent ofUCAV technology, depicts drones, in a poetically dystopian fashion, as the final stage of evolution in “a clean factory of slaughter.” This sort of metaphorical and biased language, unfortunately, tends to discredit the author and any eventual serious contribution he may make. Etzioni responds appropriately that, “This kind of cocktail-party sociology does not stand up to even the most minimal critical examination.”³⁶⁴

Rosa Brooks certainly concurred and argued against the emotionally laden rhetoric presented by many of these critics, as lacking any empirical foundation. She stated, “that many common objections to U.S. drone strikes don’t hold up well under scrutiny.” She further emphasized the fact that during any period of armed conflict, “every weapons system can cause civilian casualties, and planes and tomahawk missiles and snipers, all enable killing from a distance (author’s emphasis).”³⁶⁵ Etzioni also concurs with this assessment and sees drones as merely another step in the evolutionary process of weapon development and refinement.³⁶⁶ Killing from a distance is not a new phenomenon by any means. From long-range artillery and mortars to long range bombers, death in warfare has been increasingly dealt out at greater distances. Greater distance, after all, is equivalent to enhanced safety for troops on the ground.

Collateral damage falls under the umbrella of *jus in bello* and more specifically the doctrine of double effect (DDE).³⁶⁷ It is important to bear in mind, however, that the doctrine of DDE is a moral argument and not a legal one. And while there exists conceptual similarity DDE is not the same as proportionality and the collateral damage principle as outlined under API article 51 and 57. This basically refers to the fact that proportionally limited serious harm or injuries may be permissible in the quest to achieve positive military outcomes. Just War Theory sees war as an inevitable manifestation of the aggressiveness of human nature.³⁶⁸ Lying mid-path between pacifism and realism, JWT attempts to find a humanitarian-based middle way, to alleviate suffering and reduce the harsh reality of armed conflict.

The theory, however, is based upon a realistic understanding. Part of that understanding is expressed in the knowledge that there will always be civilian casualties in warfare. JWT attempts to limit those noncombatant losses and associated infrastructure damage to “acceptable minimum standards.” Again, the calculus which is made to what is acceptable or not remains the purview

of the commander in the field. This does not mean, however, that the commander in the field has unlimited discretionary power since strong oversight and legal control are exercised prior to conducting any military operation. Civilians and civilian objects must be cared for and afforded protections. Article 51 concerning proportionality and Article 57 relating to precautions relate to the care that must be exercised prior to any offensive action. Additional Protocol I Article 57, of the Geneva Conventions clearly indicates:

1. In the conduct of military operations, constant care shall be taken to spare the civilian population, civilians and civilian objects.
2. With respect to attacks, the following precautions shall be taken:
 - (a) those who plan or decide upon an attack shall:
 - (i) do everything feasible to verify that the objectives to be attacked are neither civilians nor civilian objects and are not subject to special protection but are military objectives within the meaning of paragraph 2 of Article 52 [\[Link \]](#) and that it is not prohibited by the provisions of this Protocol to attack them;
 - (ii) take all feasible precautions in the choice of means and methods of attack with a view to avoiding, and in any event to minimizing, incidental loss of civilian life, injury to civilians and damage to civilian objects;
 - (iii) refrain from deciding to launch any attack 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 the concrete and direct military advantage anticipated;³⁶⁹

Thus, according to this doctrine of double effect, there are two ways in which noncombatant casualties may occur. They may be either *unforeseen and unintended* (an unfortunate but natural consequence of armed conflict), or they may be *foreseen and unintended*. This is where the calculus of the doctrine of double effect occurs, by attempting to establish acceptable parameters for civilian casualties in proportion with military advantage gained.³⁷⁰

We will expand further on this concept later in the research. The question has been posed with increasing frequency, however, as to whether there is any real difference between the two conditions and it has been suggested that there is no moral relevancy between intent and foresight. The pacifist argument would then, by consequence, entail a series of conditions based upon modus ponens, if/then, or if/therefore propositional logic:

IF	If the doctrine of double effect is considered invalid	THEN	Foresight & intent are equivalent conditions
IF	The intentional killing of Civilians is forbidden	THEN	Their incidental deaths as collateral damage is also forbidden
IF	War can be expected to produce civilian casualties	THEN	All armed conflict is unjustified and should be forbidden

Of course, this offers a very neat little package which appears difficult to counter until we consider the realities of modern warfare. The above schematic was based upon the excellent chapter on pacifism, by, Ned Dobos, within *Key Concepts in Military Ethics*.³⁷¹ Here the author lays out the crux of the argument as presented by the pacifist camp.

Stanley Milgram's research offers a few insights worth considering in the current context. Particularly when we ask ourselves the question of whether is it possible for an operator to inflict collateral damage without feeling any sense of remorse? In other words, can obedience to authority override our basic humanity and is such a sociopathic approach even desirable? Milgram performed several valuable experiments relating to power and obedience to authority and its effect on those carrying out orders. The most notable of these was the infamous obedience experiment carried out in the 1960s. These results were verified many times over and the findings are consistent. Individuals will carry out orders, even fatal ones, obediently, despite personal stress and personal convictions to the contrary. In this case, subjects delivered, what they perceived as lethal doses of electric shocks under orders by a lab assistant to innocent persons with whom they had no connection.³⁷² We can easily see how such an experimental model might be applicable to the current situation relating to targeted killing.

Another interesting examination into this area, and along similar lines, was the now famous "Stanford Experiment", conducted by Philip Zimbardo at Stanford University in 1971. During this experiment, certain participants were designated as prison guards and others as prisoners. Briefly, the experiment got out of hand with severe psychological torture and maltreatment occurring and the experiment had to be stopped and cut short.³⁷³ Both these experiments had as their wellspring the examination of the rationalization behind the Nazi atrocities of WWII. The authors were questioning the limits of personal control when faced with overwhelming authority. While the situations are very different, there are important lessons that can be drawn from their work.

These experiments are well worth considering in the context of orders received and actions undertaken by drone operators. Randall Amster observes. "Virtual warfare still produces tangible

effects on civilians and combatants half a world away as well as on those who are asked to control the misnamed 'joysticks' here at home,"³⁷⁴ he explains. Distance is but one part of a dichotomous relationship which can manifest itself psychologically. The drone operators, analysts and crew members also partake of the life of their intended targets over varying periods of time. Sometimes they are observing a family for weeks on end, and they finish by making an unconscious connection with these individuals. For many, they see themselves not as detached players in a theatre of the absurd, rather as participants in an active conflict.

The spatiotemporal divide plays no role for them as far as the ends and the means are concerned. "We were not drones, but professional pilots and planners who scrutinized every target to make sure the shot was legal and just,"³⁷⁵ explains Lt. Col. T. Mark McCauley. When the order comes down the line that cathartic relationship may prove psychologically traumatizing for certain persons. Imagine, for instance, after having given the order to fire an AGM-114 Hellfire missile, that a child from the family, or the mother, suddenly appears unexpectedly having been thought of as safely out of the target area. The point to understand here is that collateral damage is a two-way street and can impact different actors, at different levels and to different degrees. When we speak of collateral damage it is not enough to merely consider the consequences of the strike. The extremely high number of post-combat related suicides and PTSD related illnesses bear witness to this assertion.

In an article for *Foreign Affairs* magazine, Sarah Holewinski, executive director for the Center for Civilians in Conflict, brilliantly tied the issues of collateral damage, and grand strategy development within an international relations framework. She insists, "...the United States needs to turn its recent ad hoc progress into a permanent and formal policy followed not only by its own military but also by those of its partners."³⁷⁶ This is a logical approach given the

premise that if the United States leads in the sphere of strategic planning, then they should also lead in the realm of diplomacy and soft power as well. Diplomatic and Military power are the left and right hands of international relations.

One of the major drawbacks politically and diplomatically has been the indiscriminate nature of attacks exercised during drone warfare. Lev Grossman writing for *Time Magazine* pertinently notes “Since President Obama took office; the U.S. has executed more than 300 covert drone attacks in Pakistan, a country with which we’re not at war.”³⁷⁷ To date, this number has not ceased to increase, with ever greater reliance upon this technology. The principle problem here, and this is reiterated throughout the current research, has become one of *mistaking a technology for a strategy*.

Cristopher Swift, speaking to McClatchy, on the topic of targeted killings pointed out that. “We are doing this on a case by case basis, rather than a systematic or strategic basis.”³⁷⁸ If Pakistan has surreptitiously allowed targeting of its own citizens for political expedience, or merely for concessions and convenience sake they are at fault under international law. The United States is also at fault should they be carrying out unauthorized and illegitimate attacks. The flexible rendition of the wording contained within the self-defense clause of Article 51 of the UN Charter, according to some critics, has been used as an excuse and a “*Passepartout*” to override national sovereignty, which was certainly not the original intent, nor the spirit of the law.

As of January 2014, according to the Bureau of Investigative Journalism, the drone strikes undertaken in 5 years, by the Obama administration, resulted in nearly 2,400 deaths.³⁷⁹ This has created a lack of legitimacy, due to issues of transparency and waning support internationally. It

has also created a loss of credibility in the eyes of an aggrieved and victimized public, both at home and abroad. Peter Cullen, speaking about the tightening of information and the use of drones for targeted killing, asserted, “All this requires a more transparent policy on targeted killing in which there is public confidence in its checks and balances to ensure proper targeting decisions are made.”³⁸⁰ Michael Schmitt also underlines a most significant concern relating to civilian casualties and asymmetric conflict, “...asymmetry creates a paradoxical situation. The more a military is capable of conducting ‘clean’ warfare, the greater its legal obligations, and the more critical the international community will be of any instance of collateral damage and incidental injury (even when unavoidable).”³⁸¹ Interestingly this statement highlights yet another troubling paradox, that of the military and politicians touting and vaunting the successes of their precision munitions and the efficacy of their weapons platforms. Just how does one define precise in a zone of conflict without affordable access? How can such precision be verified? Another related issue of concern when reflecting on noncombatant casualties is respect for the proportionality principle.

It is not because warfare may become robotic, automated and more humanly isolated that these constraints are any less important. The victims, as well as their suffering, will always remain very human. There needs to be a continued balance in the aspects of humanity, proportionality, and necessity. These elements must be measured and based upon fundamental and universal moral and ethical criteria such as:

- The taking of human life is ultimately wrong;
- This fact must be balanced with the obvious realization that warfare is unavoidable;
- War is an integral component of interstate relations and conflict resolution;
- Therefore, a balance must be struck;

- That balance is to conduct war in the most acceptably humane fashion possible;
- The absolute injunction against targeting noncombatants;
- Prosecution for failure to respect the applicable laws of war;
- The humanitarian, *jus post bellum*, conditions extend to alleviating suffering, minimizing damage, and helping to restore peace and prosperity as rapidly as possible in its wake.

The interest of strategic victory must not preclude the rule of law and principles upon which democracy is founded. Should the U.S. flout international law, ignore ethics, and bend them to its own needs, the state will ultimately lose its legitimacy and finish little more than a powerful, yet failed state ruled with despotic tyranny much like those it purportedly abhors and attacks itself. The solution lies in judicious *jus ad bellum* decision-making or knowing how to pick your battles well.

Summary

The chapter began by defining what precisely the term targeted killing (TK) refers to and why it is not tantamount to assassination. Following this brief introduction, the discussion turned to examining the questions surrounding the legal, moral and ethical dimensions of targeted killing as a strategy. It was noted that targeted killing is a strategy, whereas the drones used to conduct such operations were merely the tactics employed to carry out that strategy. Foundational principles which satisfy the multiple criteria of Guiora were emphasized by four distinct points: the development of a precisely defined targeting policy which clearly outlines the concept of imminent threat; a greater emphasis on all source intelligence, as opposed to technological reliance; an ethically, morally, and strategically balanced decision-making process, rather than a

simple, ‘ends justifies the means’ approach, and finally, the target determination process should have a moral and legal foundation, when bridging the gap between a threat and a target.

Covering the concept of target discrimination, or target distinction, it was asserted that this is a core feature to international humanitarian law, particularly when attempting to identify and avoid noncombatant casualties. Target discrimination helps to identify and classify whether the responding action pertains to a law of war or law enforcement paradigm. Travalio and Altenberg, drew the interesting conclusion that the appropriate response—either law enforcement or the use of military force, should be situation dependent, a sentiment echoed, and a theoretical model proposed in the current research. One of the major difficulties involved in the war against terrorism is the actual identification of legitimate targets. This is one of the fundamental elements which led to the creation and adoption of the new category of illegal combatant. It was noted that according to Keifman, there is no established definition as to what might possibly constitute an *indiscriminate* attack.

Since the enemy seeks safe harbor among the civilian population, discriminating between fighters and innocent noncombatants becomes even more difficult. The unfortunate and unavoidable end result is often extended civilian “collateral damage” to both lives and infrastructure. Such loss of innocent life contributes to an increase in the ranks of the enemy.

The standing rules of engagement (ROE) were presented and it was noted that in the Afghanistan theater of operations a rather broad exercise of discretion was permitted in the interpretation of hostile intent.

Target discretion exists upon a spectrum. Response to the threat is based upon the criteria of imminence. The spectrum ranges from target identification, to direct observation, followed by

the assumption of intent, and in the best-case scenario confirmed by reliable actionable intelligence. As mentioned elsewhere in this research, intelligence is unfortunately incorrect, misguided or manipulated in many cases.

One of the points seldom elucidated revolves around the question of whether drones are effective in curbing terrorism. There is no clear-cut answer to this question and there exist two schools of thought locked in contentious opposition on the matter. There has been little empirical evidence forthcoming to shed light on the discussion. One side argues that the decapitation strategy helps reduce effective leadership and minimize the threat, while the opponents argue that the strategy merely helps to increase resilience and helps to swell the ranks of the terrorist groups.

Personality and signature strikes were the next item of concern in the previous chapter. Two core concerns relating to the legitimacy of any type of targeted killing, according to Amos Guiora, revolve around the questions of *who* can be targeted and *when* is it legally permissible to do so. Given that those posing the threat do not wear uniforms or distinctive insignia, this compounds the problem and renders positive identification far more difficult. This impedes the effective prosecution of targets in the *area of operations* (AO).

Personality and signature strikes as conducted by the CIA, were then defined. This first practice related to the singling out of high value targets (HCTs) for elimination, in what is commonly referred to as a decapitation strategy. Such a strategy would be far less questionable were it not being conducted by a civilian organ of the state as is currently the case. The signatures strikes are even more problematic since they are based upon a vague notion of patterns of personal behavior.

Signature strikes under international humanitarian law (IHL) generally require two specific conditions: that the combatant being targeted is either a direct participant in hostilities (DPH) or maintaining a continuous combat function (CCF). According to Kevin Jon Heller for the signature strikes to be considered legal under IHL two essential criteria are mandatory: the signatures must be validated sufficiently to assure proper identification of the designated target, and secondly, there must be sufficient supporting evidence. Kevin Jon Heller's 14 points relating to the legitimacy of signature strikes, including some related comments and observations, were then presented for examination.

Many current analysts including Micah Zenko, feel that the signature strike is a counterproductive strategy and this research fully concurs with the view. Targeting according to this stratagem is often based upon what is referred to as their intelligence signature. This is a rather vague and imprecise method of identifying an individual through their alleged communications. The obvious problem arises that phones can be passed about and there is no guarantee that the signal intelligence identifying that individual indeed belong to that specific target. Yet another rather distasteful strategy possibly employed by the agency concerns post-funeral strikes upon mourners supported by a combined study conducted by legal teams at New York and Stanford Universities and statements by Christof Heyns, UN rapporteur on extra-judicial killings.

The concept of collateral damage was the following topic for examination, since it too, is also closely related to and often a consequence of targeted killing. It was suggested that the term collateral damage is often misleading in the face of the havoc, chaos and destruction which remains in the wake of modern warfare. Damage infers that there is something left to repair whereas the increased power and precision of modern weaponry often precludes such a

possibility. It was further advanced that the rather unfettered application of the drone tactic during the Obama administration, served to exacerbate and contribute to increasingly violent responses rather than reducing or alleviating the threat. It was also asserted that the public is largely oblivious and exhibit careless disregard concerning the conduct of the distant conflict.

A drone strike may be criticized for resulting in civilian casualties, while at the same time overlooking the fact that a high value target or a terrorist group had strategically hidden themselves among the civilian population. The effective use of precision guided munitions to engage a target are a much safer alternative than resorting to traditional strategies such as dropping bombs. Certainly, the use of an AGM -114 Hellfire missile is a preferable solution and will result in far fewer noncombatant casualties than dropping a 500-pound guided bomb unit (GBU). Additionally, and this is a core argument of the current research: the spirit of international humanitarian law would appear to argue for the use of drones and precision guided munitions, contrary to arguments stating otherwise. Given the proportionality requirements and the injunction in IHL to minimize noncombatant harm, the use of these weapons appears entirely justified. Specifically note the wording of Article 57(2)(a)(iii) which stipulates:

With respect to attacks, the following precautions shall be taken: *a)* those who plan or decide upon an attack shall: ...*(iii)* take all feasible precautions in the choice of means and methods of attack with a view to avoiding, and in any event to minimizing, incidental loss of civilian life, injury to civilians and damage to civilian objects...³⁸²

It was advanced that there exist two ways in which noncombatant casualties might occur. They may be either *unforeseen and unintended* (an unfortunate but natural consequence of armed

conflict)—in other words, accidental, or they may be *foreseen and unintended*; for example, during a situation which is unavoidable. There has been some debate as to whether there actually exists a difference between these two conditions. A schematic, representing the pacifist arguments, developed from information provided by Ned Dobos, in his *Key Concepts in Military Ethics*.³⁸³, was then presented for consideration.

The chapter concluded with an evaluation of possible alternative approaches to be used in conjunction with or in the place of a strategy based purely upon targeted killing. Numerous authors have also asserted that the blind reliance upon a single tactic to determine strategy is not only misguided but that it is also highly counterproductive. Although there exist other models, four alternative examples were presented for possible consideration.

Chapter VI

“The supreme art of war is to subdue the enemy without fighting.”

— Sun Tzu, *The Art of War*

MILITARY AND STRATEGIC CONSIDERATIONS

Nasty, Brutish and Short: A Return to Hobbes and Asymmetry

“And if historical experience teaches us anything about revolutionary guerilla war, it is that military measures alone will not suffice.”

—Samuel B. Griffith *Introduction (On War by Mau Tse-tung, 2007)*

Thomas Hobbes, considered by many as the father of social contract theory and author of the book *The Leviathan* (1651), was an extraordinarily influential political philosopher. His writing serves as a continued source of insight for all major political thinkers up to and including the present day. This influential treatise established the contract theory, formulated guidelines for the rights and responsibility of states and their citizens in the wake of chaos and bloodshed of the Thirty Years War and which served to complement the Peace of Westphalia of 1648. It should be noted that Hobbes made significant contributions to European liberal thought, and jurisprudence, notably regarding individual rights and the very important legal precept of *nullum crimen sine lege* (without a law there is no crime).

Modern warfare, over the past few decades, has become increasingly sinister and lawless. While this excess is not always justifiable, by any means, it is a direct response to the asymmetric types of conflict being waged, which fosters a vicious cycle of overindulgence in unethical and immoral bloodshed, reprisals and suffering. The following segment is meant to illustrate some of the spillover effects and the difficulties they create when state actors, abiding by the law of armed conflict run up against violent non-state actors who abrogate all laws of decency to turn the situation to their own advantage. Insurgent tactics, where possible, need to be countered with insurgent-type responses, while still maintaining and respecting the protocols of ethical decency and legal restrictions. The use of small and effective SOF units is one step in the right direction. Standard operational procedures and traditional tactics, techniques and procedures (TTPs) employed in a nonconventional combat environment are both inefficient and counterproductive.

Asymmetry is the most standardized form of warfare today. Schmitt cogently describes two types of asymmetry: (i) Positive, which reinforces the advantage of one belligerent over another and (ii) negative asymmetry, where a stronger enemy's weakness can be exploited.³⁸⁴ Sometimes these models work simultaneously or are totally intertwined. This type of warfare can also contain different sub-categories of asymmetry.

There also exists a phenomenon I will refer to here as "*reverse asymmetry*," since there exists no specific definition for this to the best of my knowledge, outside a broad application employed by Michael Raska.³⁸⁵ This is an extension of the concept of negative asymmetry, but one in which the weaker opponent does not merely exploit vulnerabilities of a more powerful adversary rather, in this sense operates from a position of strength. Reverse asymmetry could be represented using weapons of mass destruction, an EMP attack (theoretically drone-deliverable),

or some unforeseen or unimagined zero-day vector for instance.³⁸⁶ Alluding to this reverse symmetry, Yves Duguay observes, “Simple and minimal resources on the part of the terrorists are inflicting major damages, whereas the means to prevent and protect against those attacks are both complex and costly, creating an asymmetric conflict.”³⁸⁷ This view tends to slightly exaggerate the current state of affairs but offers the distinct advantage of pointing out the very real and significant threats and vulnerabilities which do exist.

There is, of course, *logistical asymmetry* where the weaker side lacks the logistics and weaponry of their adversaries, but there is also *doctrinal* or *operational asymmetry* as well. Doctrinal and operational asymmetry exists when a well-formed and trained force faces a disorganized, under-armed, and poorly trained enemy. Finally, there is the concept of *technological asymmetry*. Technology is but one form of asymmetry closely related with new cognitive approaches and doctrinal asymmetry. Such asymmetry leads to enhanced efficiency, not only in the weapons of war but in the way war itself is waged. Finally, we may say, there also exists ideological asymmetry. This is the result of the terrorist ideologues, being entirely convinced of the justification of their divinely mandated cause. They are confronted with a Western enemy torn by self-doubt, introspection, and revulsion of their own culture. Liberal ideology of the West cultivates doubt, relativism, inclusiveness, and respect as supreme attributes. These are not military virtues that contribute to winning the war.

Asymmetry represents observable and marked power differentials at various levels and in various fields, such as the media, politics, the military, legal frameworks, technology, socio-economics and so forth. While all these forms of asymmetry create and carry different levels of impact with their attendant consequences, what concerns us here, is primarily, its military (and politically strategic, by extension) application in relation to transnational armed conflict. As

mentioned in our discussion on effects-based operations (EBOs) everything is interrelated when it comes to armed conflict.

Important, too, is the concept of negative asymmetry, or the responsive strategy adopted by what is considered as the weaker side. While seen as inferior, both strategically and operationally, in some respects the weaker opponent can, at times, be stronger in both categories. Consider for instance the fact that Western forces have their hands bound, so to speak, due to the fact that they are forced to adhere to the laws of war and comply with specific rules of engagement—rules which have no bearing on the supposedly asymmetrically “weaker” adversary. In cases of grave disparity, where there exists an existential threat, an asymmetric conflict can engender a suspension of the law of armed conflict and offer a greater propensity for violations. Such a situation can and has resulted in a vicious cycle of desperate measures adopted by the weaker side, followed by disproportionate reprisals by the stronger belligerent.³⁸⁸

The problem is that since ISIS and their affiliates are not recognized as legal combatants they cannot be tried for war crimes. Even if they could be prosecuted the status of transnational armed conflicts do not fall under any specific legal framework (c.f. they are neither international armed conflicts nor are the non-international armed conflicts). Finally, the lack of clearly defined parameters between international human rights law and international humanitarian law only serves to obfuscate any possible resolution.

This is a particularly complex paradigm; however, Michael Schmitt does an outstanding job of succinctly describing positive technological asymmetry: “Using networked C4ISR unavailable to the other side, friendly forces seek to get inside the enemy’s observe-orient-decide-act (OODA) loop. In other words, acting more quickly than the enemy, forces him to become purely

reactive, thereby allowing you to control the flow, pace, and direction of battle. Eventually he [the enemy] becomes so disoriented that paralysis ensues.”³⁸⁹ This represents a concise and encapsulated description of the advantages and disadvantages presented by asymmetric warfare.

There also exists the notion of an *asymmetric threshold*. According to such a view there comes a point which when passed renders the asymmetric conflict as no longer justifiable, due to such an enormous disparity of means. Galliot explicates, “The asymmetry objection essentially holds that the use of remote weapons by one force against another force, without such technology, crosses some symmetry threshold making the fight intrinsically unfair and thus unjust.”³⁹⁰ Establishing such a criterion would be, not only difficult, it would also be futile.

It is difficult to imagine just what such a threshold might encompass, according to what standard it might be measured, or how it could even possibly be implemented. Additionally, there is no requirement under international law that a war must be “fair,” in the sense intended by Gaillot. Indeed, if ever such a measure were instituted it would lead no doubt to a more protracted conflict with an even greater number of casualties.

The fact is that one of the conditions for a State to justifiably use legitimate force and enter a conflict is having a significant chance of success, this automatically creates a physical and theoretical imbalance at the outset. It is worth considering another point, relating to asymmetry, raised by Stephen Coleman who quite logically asserts that “International law on the issue makes it quite clear that combatants may legitimately be targeted at any time, and there is no reason to think that the legal situation might change simply because all the risk in a particular conflict seems to fall on one side.”³⁹¹ Related to these previous concerns are questions surrounding the

strategic, operational and tactical assessments by the terrorists themselves, and their possible choices of retaliation.

Terrorists, insurgents and illegal combatants all have one thing in common. They have little or no defense against unmanned armed aircraft. Furthermore, they have little or no option of surrender. This dilemma forces them into a corner and it is important to consider the future possible consequences and analyze such a threat appropriately. Patrick Lin warns, “The Predator [and Reaper] UAV pilots in Las Vegas, half a world away from the robots they operate, would seem to be classified as combatants and therefore lawful targets of attack even when they are at home with family.”³⁹² On the other hand those drone pilots who are civilians are just that civilians participating directly in hostilities. An interesting ethical question however arises concerning the status of those Air Force pilots engaged under the direct command and control of civilian organizations such as the CIA. The obvious danger if one accepts such a line of thinking is that there is a distinct risk of opening the door to an expansion of the conflict and bringing it back full circle.

On the other side of the equation critics of this point of view argue that it is not a weapon system which decides upon the entering or not into armed conflict. Strawser considers unmanned technology as merely an extension of executive strategy, and in that respect, much the same as any other weapons platform; either manned or unmanned. Previously even long-range weapons such as artillery were still considered within the zone of combat. However, if we consider ships and distant airbases that have been used to launch attacks, then by logical extension it would indeed appear that drone pilots operating combat vehicles *regardless their location*, would indeed be justifiably legitimate targets. The geographical dimensions of the conflict are thus expanded to include personnel who directly participate in hostilities (DPH).

There is one factor, however, which tends to be ignored by both parties in this debate and that is that with the adoption of unmanned technology the troops are no longer in harm's way and no longer face the risk of death. This makes it both strategically and politically more feasible to resort to armed drones as the silver bullet solution to conflict resolution. Strawser admits as much himself when he states, "I grant that this worry about asymmetry created by improvements in military technology making it easier to go to war may well be a legitimate concern."³⁹³

How does the process behind the kill chain function? (outside the battlespace)

According to available secret documents, there is some discrepancy between what was initially purported by Obama and the actual reality within the process itself. While Obama is involved in each approval (at the time of writing), he is not involved in the authorization of each individual strike. This is inconsistent with his claim to having a tight control over the process and indicates a far more discretionary process than had been originally declared. The process begins with the processed intelligence package, once it has been fully developed by JSOC (Joint Special Operations Command), in the field, being sent to the specific theatre commands—either AFRICOM or CENTCOM, depending upon the specific geographical location of the intended target. The file is then forwarded to the Joint Chiefs of Staff (JCS) for further processing. From there is sent on to the Secretary of Defense (SecDef) the final review in the process is attended by a special committee known as the Principals Committee of the National Security Council (NSC/PC, originally established under President George H.W. Bush).³⁹⁴ The NSC/PC also works in conjunction with their collectively titled Deputies Committee who serve as their seconds in command. The PC for all practical purposes is the membership of the NSC without the President and Vice President.³⁹⁵ Note that the basic structure of the NSC is as follows: The President, Vice President, the Secretary of State, Defense and Energy (since 2007), as well as any others the

President so chooses. The Chairman of the Joint Chiefs of Staff (CJCOS) and the Director of National Intelligence (DNI), serve in an advisory capacity. Please refer to the diagram in Appendix “K” for clarification.

How does the process behind the kill chain function? (within the battlespace)

While we have largely focused upon the aspects surrounding those operations other than in the authorized warzone areas of responsibility (AOR), it would be remiss to overlook actual targeting practices as they are conducted during legitimate combat operations as well. Much like those operations conducted outside the actual battlefield, these combat operations also follow a similar pattern of target analysis and selection prior to any approval. Targets are selected and designated according to their categories of importance and are then filtered along a chain of command to satisfy the applicable Target Selection Standards (TSS). The selection process is categorized according to the significance of the target (either in size or importance). The top targets are listed as category 1 and are attributed to the Division level commands. Category 2 are attributed to Brigade Combat Team (BCT) level. Categories 3 and four are handled at the Battalion Task Force (BN TF) level, and finally, Category 5 targets are designated as the responsibility of Company-level units. It should be noted that this process is employed for both a lethal, kill/destroy Course of Action (COA), as well as for less than lethal or behavioral capture/disrupt operations.³⁹⁶

The nomination process or selection of a target within the defined battlespace follows a simple five-step framework: The first two steps consist of nomination, which is followed by the target being developed. In the third phase, the target is then approved by various working groups and

passed for a review at what is referred to as a targeting Meeting. Final approval is accorded by the commanding officer at the Targeting Board.

Regardless, whether the intended operation is inside or outside the battlespace there is a targeting cycle which is generally followed. This consists of 6 distinct phases:

1. Commanders Objective – Guidance and intent
2. Target Development – Nomination, Validation, Prioritization
3. Capabilities Assessment – includes weaponeering
4. Force Application – Planning and Assignment of roles
5. Force Planning and Mission Execution
6. Combat Assessment

It is important to note two points prior to finishing the discussion on the kill chain. First, a strike can only be authorized after two forms of intelligence data have verified the target. Sometimes this can be flawed since much of that intelligence comes from a single source, the NSA. The second point, to bear in mind is that regardless the operation, be it either within a selected combat zone or outside an actual theater of operations, the control of the operations requires a dedicated and reliable satellite uplink. This uplink reduces the time between the target in the strike zone and the drone sensor operator (doing the targeting) and pilot prosecuting the strike, in the United States. None of this would be possible without the satellite relay station situated in Ramstein Air Force Base in Germany. It is via this base that information is transmitted from the battlespace back to the U.S., nor the drone control effected from the United States, with reduced latency. Appendices L and M provide images of both Creech Air Force Base in Indian Springs Nevada as well as the satellite Transmission station at Ramstein Air Force Base in Germany.

Tabassum Zakaria, writing for Reuters presciently reported a rather paradoxical situation, “President Barack Obama, who vastly expanded the U.S. drone strikes against terrorism suspects overseas...is now seeking to influence global guidelines for their use as China and other countries pursue their own drone programs.”³⁹⁷ This statement if carried forth into policy would raise the following concerns which we have emphasized and addressed over the course of the current research: *What are the existing moral, ethical, legal and technological boundaries which define the use of UAVs and UCAVs and how do these boundaries relate to autonomy and discretion? Furthermore, how do these disparate phenomena interact and what specific criteria can be formally established and articulated between them?*

The prediction that the U.S. would be forced to react due to an ever-increasing expansion of foreign development, expansion, and exploitation, has indeed come to fruition. The actual motives behind the move by the administration remain veiled. This maneuver may represent little more than a political sleight of hand to divert attention away from its own extensive use. The fact remains, nevertheless, that the previous administration was forced to recognize domestic and international disenchantment related to the expansive use of armed drones forcing acquiescence to external pressures, both at home and abroad; at least temporarily. This fact has been coupled with and compounded by, mounting dangers represented by foreign development. Concerning this alternative approach evidenced by the administration, Zakaria, writing at the time emphasized that “Obama’s new position is not without irony. The White House kept details of drone operations- which remain largely classified – out of public view for years when the U.S. monopoly was airtight.”³⁹⁸ Now that there exists a threat on the horizon, perhaps the rules of play will need to be altered.

That is not to say that such developments will remain steadfast or in force. Following on the heels of the previous announcement Kristina Wong writing for *The Washington Times* reported that in contradistinction to the calls for restraint laid at China's portal, a new set of guidelines for commanders had been drawn up in October 2012. These new guidelines are far less restrictive in their language than previous ones. The language offers far greater discretion and autonomy to commanders in the field, particularly in relation to the prosecution of drone strikes. Wong points out that, "The [earlier] 2009 version directs military personnel to take reasonable precautions to ensure that civilians are not targeted in attacks; the 2012 version says service members should "avoid targeting" civilians."³⁹⁹ Thus, the second version is even more nuanced and far laxer in its directives.

Thus, the apparent volte-face carried out by the Obama administration remains a mystery and forces us to ask the question, "How can the U.S. administration legitimately justify the call for greater restraints upon other states, regarding the use of armed drones, while at the same time relaxing the rules for its own military? The answer is obvious, they cannot, or at least they should not. Such a stance is both ethically unjustified and strategically unsound. Such a policy smacks of hypocrisy of the worst sort.

Part of the new guidance policy allows commanders, in the zones outside the traditional battlefields such as Yemen and Syria, to target individuals whose names they do not know. This is an apparent compromise, albeit a cosmetic one, between personality strikes and signature strikes that were carried out by the CIA in Pakistan. This new strategic approach has been labeled, *Terrorist Attack Disruption Strikes*, or TADS. Critics are once again alarmed, perhaps with reason that the loosening of the constraints will revert to the previous pattern of expansive application and abuse. These disruption strikes, like much of the Obama strategy, are also

shrouded in a veil of secrecy, however, they are generally considered by many to be the same signature strikes with minor tweaks.⁴⁰⁰

Despite the apprehensions, the reports concerning civilian casualties have been encouraging, overall. Since 2014, there has been an appreciable decline in civilian casualties in Pakistan for instance. This may, however, be more the result of a dwindling number of high-value targets still available combined with a stronger reticence on the part of Pakistan to allow the strikes. Even though Obama has seen fit to relax the rules for military commanders, the CIA, appears, according to most reports, far better suited to the task of targeted elimination.

Find, Fix, Finish, Exploit, Analyze, and Disseminate (F3EAD)

It is worth taking a brief detour to discuss and examine more closely this concept since it is highly relevant and central to both the topics of intelligence gathering and targeted killing. Find, Fix, and Finish has been attributed to General Matthew Ridgway during his command in the Korean conflict and according to Peritz and Rosenbach, reformulated from an earlier maxim previously expressed by General Ulysses S. Grant.⁴⁰¹ The core principles they express, however, date back as far as recorded military history and beyond. In this sense, it appears highly probable that the concept is a long-standing strategic perspective and that is integral to the art of war itself.

The concept was later worked into a more complete theoretical and functional framework, known as F3EA or Find, Fix, Finish, Exploit and Analyze, thus, rounding out the cyclic nature of the analytic process of two distinct military doctrines; tactical operations and intelligence surveillance and reconnaissance or ISR. The concept fuses the dual role of intelligence gathering with that of targeting selected enemies and kinetic operations. Known in its basic tactical doctrine form as simply FFF or F3, the strategic blending of tactical and ISR processes led to the

appellation F3EAD, or Find, Fix, Finish, Exploit, Analyze and Disseminate, also pronounced as “feed” in special operations jargon.

The first half of the formula—Find (identification of the target), Fix (geolocation of the precise position of the target), and Finish (terminating the stated objective) refers to the identification of the threat, stabilization and subsequent elimination of the target. This represents the kinetic or tactical phase of the equation. Exploit, analyze and disseminate, were cherry-picked from the intelligence cycle as being the most appropriate phases to combine with the kinetic operations.

Following a kinetic operation, the intelligence phase of the cycle kicks in and any valuable information relating to the, presumably, High Value Target (HVT), is then collected, Exploited, Analyzed and Disseminated (to the appropriate channels). Ideally, this is represented in the formulation of *intelligence-driven incident response*,⁴⁰² where intelligence drives operations and not the reverse. In law enforcement, this is referred to as Intelligence Led Policing or ILP.

One significant shortcoming with the F3EA formula, at least when employed exclusively for targeted killing, which is most often the case, is that the intelligence stops once the *Finish* segment is complete, leaving no further possibility for evaluation and analysis. Killing the source effectively closes the circle, but by the same token, permanently severs the opportunity of obtaining any more fruitful intelligence.

Cora Currier and Peter Maass, quite aptly and succinctly point out in *The Assassination Complex*, “...assassinations are intelligence dead ends.”⁴⁰³ Peritz and Rosenbach also echo this sentiment when stating that, “Many intelligence and military officials argue that detaining and interviewing terrorist suspects is the most effective way to finish them, since they can provide

information that will allow the find-fix-finish cycle to begin again; the debriefing of one suspect can aid in locating, isolating, capturing or killing others.”⁴⁰⁴ General Stanley McChrystal clearly understood this from a commander’s perspective, and made far more effective tactical and operational use of the doctrine, in Iraq. “...by 2004, we had integrated ISR into F3EA, learning to weave together *information from detainees and human sources* (my emphasis) with expanding communications intelligence and then use aerial assets to build an understanding of a target’s behavior and potential links to the insurgency.”⁴⁰⁵ The problem is that by exercising a penchant for kill operations to the detriment of capture operations, there is often very little information or intelligence to be gleaned in the after-carnage of a Hellfire strike. This is indeed one major, and seemingly well founded, criticism of the unfettered use of drone strikes.

There has been little strategic balance employed in the kill/capture doctrine, as the administration has been loath to take prisoners opting instead for a more expedient, if shortsighted, option of liquidation. This may be also an indirect consequence related to the negative publicity surrounding past US capture and confinement policies; such as those exercised at Abu Ghraib⁴⁰⁶ and Guantanamo—water-boarding, enhanced interrogation, and the associated policy of extraordinary rendition.

Strategically, UCAVS create a debilitating effect upon the morale of the enemy. The fact that the Taliban and al-Qaeda leadership are constantly concerned about their own safety and survival, means they have less time to ponder strategy and mount counteroffensive operations. This is the deterrent effect of their use. A leader who knows that he has become a target, or has been hit-listed, must not only be concerned with the complexities of coordination, planning his next operation and preparing an offensive, but must also be concerned for his own safety and personal welfare. These worries extend from communications to personal tracking and survival.

“Some leaders were becoming so concerned about the risk of electronic interception that communication between remaining operational leaders became more and more restricted,” note Peritz and Rosenbach.

This capability to detect, track, and monitor—to find, fix, and finish, seriously impacts operations and lowers the efficacy of the enemy organization. Additionally, there is suspicion sown within the rank and file causing many of the members to turn on one another like rabid dogs.⁴⁰⁷ This can, and often does, lead to an internal pogrom with the secondary effects of creating yet greater insecurity, wavering loyalty, and over-cautiousness among the group. This practice, in turn, reduces the effectiveness and solidarity of the organization and limits recruitment efforts as well. An increased campaign of covert misinformation, by the intelligence services, if not in place, would be a positive and erstwhile tactical maneuver in this sense. This is currently part of the U.S. military’s “psyops” or psychological operations strategy.

The Elephant and the Mouse: The advantages and disadvantages of asymmetry⁴⁰⁸

“Guerilla warfare has qualities and objectives peculiar to itself. It is a weapon that a nation inferior in arms and military equipment may employ against a more powerful aggressor nation.”

—Mao Tse-tung. *On Guerilla War (Yu Chi Chan*, Translated by Samuel B. Griffiths).

Many of America’s staunchest critics speak of the prowess, advanced technology and the shock and awe of its formidable military organizations. Yet these same critics fail to properly address the advantages accrued by opponents in an asymmetric conflict. It may seem, at first blush, counterintuitive that the weaker side disposes of any advantages, however, this has been the case for as long as asymmetric warfare has existed. The oft-quoted Sun Tzu recognized this inherent

strength in weakness and adversity “All warfare is based on deception. When confronted with an enemy one should offer the enemy a bait to lure him; feign disorder and strike him. When he concentrates, prepare against him; where he is strong, avoid him.”⁴⁰⁹ Facing an existential threat can prove a strong inducement to creative responses.

Overwhelming numerical strength and complex technological capabilities also create their own unforeseen vulnerabilities and burdensome systematic requirements. Indeed, author Peter Singer’s book, *Wired for War*, points to this concept in a section entitled, *The curse of Superiority: Insurgency*. Undoubtedly an exaggeration, the story of David and Goliath in the bible is just one example, while historically the battle of Thermopylae is yet another. Again, while exaggeration may have played a role in the descriptive nature of such tales, the weaker side certainly displayed marked advantages even though facing superior odds.

Samuel B. Griffiths who translated and wrote the introduction to Mao’s *On Guerilla War (Yu Chi Chan)*, emphasizes that “Guerilla war is not dependent for success on the efficient operation of complex mechanical devices, highly organized logistical systems, or the accuracy of electronic computers. It can be conducted in any terrain, in any climate, in any weather; in swamps, in mountains, in farmed fields. Its basic element is man, and man is more complex than any of his machines.”⁴¹⁰ Whether this still holds true, considering a future leaning increasingly toward full automation, will remain to be seen, however, Griffith’s points serve to underscore the principle that the weaker side of an asymmetric conflict also incurs certain advantages which may not be immediately obvious.

Insurgents can strike at a moment’s notice and pick up and move as they please. Mao Tse-tung pertinently remarked, “Some of our weaknesses as apparent only and are, in actuality,

sources of strength.”⁴¹¹ The element of surprise plays to their advantage. The asymmetric enemy can fight a shadow war while hiding among the civilian population. They are largely unconstrained by the rules to which modern armies must adhere. An insurgency, rebellion, or guerilla movement does not rely upon decisive victories in battle, nor do they maintain static defenses, common to orthodox positional warfare. Their strength lies in a strategy of highly fluid mobility. Insurgency movements fight wars of attrition. That is, they only need to stay the course and wear down the enemy’s resolve. Over the long-term support usually falters both internationally and domestically, and the belligerents are forced to the bargaining table. The calculus of the modern battlespace has, however, been altered using uninhabited aerial combat vehicles. By lowering the rates of attrition, belligerent states may stay the course far longer than was previously the case. We need only compare the conflicts of Vietnam and Afghanistan to fully comprehend such differences.

In Afghanistan and Iraq, NATO’s International Security Assistance Forces (ISAF), have been largely constrained by strategic imperatives tied to—the maintenance of stability, enforcing the rule of law, and enhancing the security of the local population. However, these imposed constraints have been somewhat mitigated using, enhanced intelligence surveillance and reconnaissance (ISR), effecting regular mounted patrols, embedding units among the locals, and protecting the civilian population of the host nation (HN). The title *Counterinsurgency on the Ground in Afghanistan* highlights the fundamental principles involved in conducting a counterinsurgency operation. These principles are identical to constraints already outlined in this research: “focus on the population, the primacy of politics, restraint in the use of force, and good governance.”⁴¹² Counterinsurgent strategy then inherently possesses certain disadvantages related to its implementation.

The highly decentralized and autonomous regions of Afghanistan and Syria are political entities unto themselves. This means that no conclusive overarching strategy can be formally developed. The same comment applies equally to the conduct of military and civilian counterinsurgency (COIN) operations. In an excerpt from the above research, the authors remark that “In Nawa district in central Helmand, the US Marines met with quick success, but efforts in Marjah just a short distance away ran into serious trouble—not because of different tactics, but because Marjah was a different sort of place.”⁴¹³ Thus, from one area to another in Afghanistan, Syria, or elsewhere, while COIN operations may be effective in one part, the same tactics may equally fail in another. One point, however, remains certain, 4GW conflicts place powerful belligerents at a marked disadvantage and will continue to do so in the future. If they do not adapt to this new type of warfare, they simply shall not achieve their goals and objectives. It is worth quoting Hammes, at length, in this regard:

Not only is 4GW the only kind of war America has ever lost, we have done so three times: Vietnam, Lebanon, and Somalia. This form of warfare has also defeated the French in Vietnam and Algeria and the USSR in Afghanistan. It continues to bleed Russia in Chechnya and the United States in Iraq, Afghanistan, and in other countries against the al-Qaeda network.⁴¹⁴

One clearly negative consequence related to asymmetric superiority is that the weaker side when pushed back to the wall, may resort to unorthodox tactics that are adopted out of desperation. Thus, the repertoire of tactics used by insurgents may include, torture, rape, human shielding, and the use of weapons of mass destruction if available. Nevertheless, the lack of large-scale logistical requirements and the advantages of rapid speed and mobility are undeniable

advantages for the weaker participant in an asymmetric conflict. Additionally, the strong side belligerent may press home its advantage, employing even greater force, in an asymmetric conflict, in the face of diminishing resistance. In other words, the weaker the enemy the greater the effort and force pursued.

Newton's third law of physics holds that for every action there is an equal and opposite reaction.⁴¹⁵ So too in military strategy, the same principle applies. Therefore, while swift mobility and lack of logistical complications may be an advantage to insurgent forces, these same advantages can equally serve the stronger force when properly managed and well-organized. Some of the advantages of the weaker force, such as better knowledge of the terrain and environment, have been overcome with steady advances in technology, such as the forward-looking infrared radar of the Reaper drone (and previously the predator), however, these have also been compromised by adverse weather conditions, poor intelligence, and pilot error. The purpose of these comparative strategic analyses is to show that in asymmetric warfare things are not as asymmetric as they may first appear.

While technology may present certain advantages to the superior force, it is not, in and of itself, insurmountable. Liquid jelly napalm, first developed by scientists during WWII, was improved and used extensively during the Vietnam conflict, along with drone surveillance.⁴¹⁶ Neither of these important additions to the tactical toolbox was significant enough to avoid ultimate defeat at the hands of a determined, ideologically motivated, and well-organized resistance. Hammes cogently remarks, "True believers in technology see warfare as being reduced to a one-sided contest where the technologically superior side dictates all action."⁴¹⁷ Hopefully, the clarifications provided in this research will dispel any such conclusions.

Hammes further hammers home the point that “We continue focus on technological solutions at the tactical and operational levels without a serious discussion of the strategic imperatives or the nature of the war we are fighting.”⁴¹⁸ This is perhaps one of the most probing, concise and evocative statements contained within this entire research. Advanced technology can certainly play a leading role and offer significant advantages to the stronger side. When taken in isolation, however, it is but one, of a multitude of factors. Technology alone cannot account for the most decisive element—the “human factor” in warfare.

This obsession with an overreliance on technology as the “silver bullet” solution, to all our strategic woes, overlooks some very critical facts. Hammes continues by clarifying, “Because *JV 2010* (Joint Vision 2010, The DoD’s strategic outlook for the future at the time of writing) clearly prefers technology to people, it is a bit awkward to address the fact that information collection against today’s threats requires investment in human skills rather than technology.”⁴¹⁹ Hammes notes that this strong axis on technology was mitigated, albeit slightly, in the later *JV 2020* version of the same strategy report.

This human factor includes and is influenced by variables such as motivation, skill, resilience, knowledge of the terrain, external aid and assistance, support of the local population, ideology, and other both measurable and immeasurable characteristics. I would, however, take exception with the rather exclusive approach adopted by Hammes and suggest a caveat. While human source intelligence (HUMINT) is certainly preferable and perhaps even more reliable than that acquired solely by technological means, it is sometimes simply impossible to obtain. Technological intelligence should serve as a complement to HUMINT, and not be considered as a competitor. The problem, as Hammes so rightfully points out is the overreliance and blind faith

in technology. Tangentially, this observation raises the question as to what possible tactical responses exist to counter such superior technological asymmetry.

Summary

This chapter was dedicated to understanding several interrelated topics of strategic importance, most notably, the political and military process behind a targeted killing order and the subsequent ramifications related to initiating and conducting that process. While the chapter on targeted killing covered the operational and ethical aspects of targeted killing, this section was more closely focused upon the strategic and political characteristics.

The examination began with an exploration of the phenomenon of asymmetry. Asymmetry is often lost in the shuffle when speaking of more controversial topics such as robotic warfare, anticipatory self-defense, targeted killing and collateral damage. Nevertheless, asymmetry is central to all these topics and the advent of transnational armed conflict. Again this term, transnational armed conflict is a descriptive term of the art that I have adopted to describe the sort of current international conflicts taking place. This is not a recognized legal status such as that of IAC or NIAC.

It was further noted that modern warfare due to this specific asymmetric character is no less violent or lawless than that of previous conflicts. In some respects it is perhaps even more violent. Asymmetry creates a vicious self-sustaining cycle of attacks and reprisals, followed by counter attacks and yet even more reprisals in response to these counter attacks. When a belligerent develops a new technology to counter enemy tactics, the enemy responds by developing a countermeasure. Even some of the most sophisticated technology has been frustrated through the employment of often crude and basic counter-technology. Thus, while the face of modern

warfare may be different from that of its predecessors, the character, nonetheless, remains the same.

The discussion then turned to a consideration of the various types of asymmetry. According to Schmitt there exist two classes of asymmetry: *positive*, which reinforces the advantage of one belligerent over another and *negative* asymmetry, where an enemy's weakness can be exploited.⁴²⁰ Related to this the research postulated a few other variants or categories of asymmetry. These included: logistical, doctrinal or operational and technological asymmetry. These observations led to the consideration of the *asymmetric threshold*, as suggested by Gaillot. According to this view, there arises a certain point at which the asymmetry is theoretically so disproportionate that the conflict becomes "unfair."

This research argued that while proportionality must be respected, fairness was not a justifiable criteria or legal requirement of international humanitarian law. Fairness, in the sense of combatant equality, is a moral construct not a legal one. The harsh truth is that warfare has always been a matter of asymmetry; an attempt by one side to gain the upper hand over their adversary, either by strength of numbers or advances in battlefield technology.

Even were it possible to wage war with an equal opportunity afforded to both sides, two additional considerations preclude the success of such a hypothetical venture. First, leveling the playing field would necessarily result in a more protracted and drawn out conflict, which would inevitably produce far greater numbers of casualties on both sides. The second factor is related to the just-war requirement that the belligerent, defending a just cause, must foresee a reasonable chance of success, prior to engaging in hostilities. Surely, in a scenario with such a fifty-percent ratio as proposed by Gaillot the chances for success would be drastically reduced and counter the *jus as bellum*, just-war prescription.

Continuing with the investigation of the theme of asymmetry, the research turned to the paradox presented by remotely piloted aircraft (RPAs). The argument that guerilla fighters cannot surrender to pilotless aircraft was addressed. This is however an extremely weak argument since, they cannot surrender to bombers or fighter jets either. In fact, as this research as shown, there were instances of Iraqi soldiers doing just that—surrendering to pilotless aircraft, during the Persian Gulf War. Another often overlooked consideration in the asymmetry equation is the fact that while the pilots and sensor operators are maneuvering their craft from distant locations, that spatial separation does not render them immune to reprisals. This fact also need to be considered when considering the moral aspect of combatant equality. Enjoining this option, however, also carries the risk of extending the battlefield in an already rapidly expanding battlefield.

At the end of the day, UCAVs represent nothing more than an advance technological platform for kinetic engagement, much the same as any other aircraft, vehicle or ship. The level of its sophistication does not preclude its legal, moral or ethical employment. The decision to engage drones to accomplish lethal missions rests the responsibility of the military under the guidance of the executive branch of government. These different observations led to our oft-repeated concern expressed throughout this research that various factors including: a reduced risk to personnel; the facility offered, and the safety afforded by unmanned aerial combat vehicles, lowers the bar for resorting to armed conflict as the “go to” solution in the mediation of international disputes.

The following segment was concerned with the operative processes of the “kill chain” outside the recognize battle space. This refers directly to the chain of responsibility and decision-making involved in the processing of targets. This process has been graphically displayed in Appendix K for easier understanding. It was shown that the explanations provided by the Obama White

House, following the revelation of certain secret documents, differed from the reality. Contrary to the assertions initially made, it was shown that, while Obama was involved in each approval, he was not involved in the authorization of each individual strike. This discrepancy resented an important distinction placed questions as to his claims of having a tight control over the process.

The strikes outside the zones of actual combat allotted to the CIA, were the most controversial. The reason for this is the obvious violation of sovereignty they represent. This raised the lingering specter of the ongoing debate between the question of sovereignty and anticipatory self-defense strategy. This ongoing debate has never been adequately resolved and this research calls for enhanced research to address this contentious issue.

As for the process itself, the order for the approval of a target follows a well-designed hierarchy. Parts of this chain have allegedly been short-circuited depending upon the intelligence provided and the existing window of opportunity. In principle the process begins with intelligence gathering in the field by the Joint Special Operations Command (JSOC) the finished intelligence package is then distributed to the various commands in the target's geographical area of responsibility (AOR), The file is passed to the Joint Chiefs of Staff (JCS) and after processing it goes to the Secretary of Defense (SecDef), At this point the file is passed up to the National Security Council's Principals Committee (NSC/PC) for final approval. Logically it appears highly unlikely and somewhat strategically and operationally counterintuitive that every target on the kill list is approved in this manner, given the limited opportunity and time sensitive imperatives at stake. Still there has been no evidence, yet, to either confirm or deny such a conjecture.

The research then turned to the question of the kill chain process, within the actual recognized zones of armed conflict. The targeting analysis and selection process, unsurprisingly is very

similar to that employed when targeting outside the recognized zone. The targets in question are selected according to their importance and are filtered along the appropriate chain of command to verify their suitability according to the targeting selection standards (TSS).

According to their level of significance, importance or challenge posed, the various targets are designated a command priority status as follows, from most important to least important: Category 1, is attributed to Division level; category 2, to Brigade Combat Team level (BCT); categories 3, and 4 to Battalion Task Force level (BN TF), and finally, category 5 targets are assigned to Company level responsibility. This target selection process is equally applicable be it a kill or destroy operation, or a capture or disrupt intervention. The process inside the AOR, follows a similar but more streamlined application than that employed for the more delicate extra-operational activities. It is a five step process. The first two stages involve the nomination process. This is followed by the target being developed. In the third phase, the target obtains approval from the working groups and it is then passed for a review at a targeting Meeting. Final approval is given by the commanding officer at the Targeting Board.

Regardless whether inside or outside an actual zone of conflict a targeting cycle is employed in the conduct of operations. This cycle, like many others reflects a business management model of the ubiquitous decision-making process (identify; inform; evaluate; implement; reevaluate). The targeting process consists of six stages: Commanders Objective (Guidance and intent); Target Development (Nomination, Validation, Prioritization); Capabilities Assessment (includes weaponeering); Force Application (Planning and Assignment of roles); Force Planning and Mission Execution; Combat Assessment.

It is important to emphasize that there are two fundamental requirements related to the targeting process. The first is procedural the second is logistical. First there is a requirement for two forms of verifiable intelligence required in every targeting decision. The down side to this requirement is that this intelligence can be faulty whether it is human or technologically based. Additionally, much of the intelligence is supplied by a single source, the National Security Agency (NSA).

The second requirement is that of a dedicated satellite uplink to conduct operations. This uplink compensates for the vast differences in time and geographical distance which separate the pilot and target. Satellite relay stations such as that in Ramstein Air Force Base in Germany, help to provide this essential bridge for the conduct of operations in the field.

Next in line for examination was the extremely important strategic concept of Find, Fix, Finish, Exploit, Analyze, and Disseminate (F3EAD). This strategic concept has been attributed to General Matthew Ridgeway, commanding General during the Korean War, who in turn possibly developed them from precepts first promoted by Ulysses S. Grant. The principles they advance, however, date to the distant past.

The theoretical perspective was expanded to incorporate the vital field of intelligence. This move combined the best of both worlds; intelligence and military strategy. The definition is relatively straight forward. Find refers to the process of correctly identifying and validating the target. Fix refers to geolocating the threat and situating it within the threat environment. Finish refers to the actual process involved with eliminating the potential threat the target poses. Exploit analyze and disseminate are elements of the intelligence cycle. Exploit refers to putting lessons learned, and any intelligence fallout that may occur, to good use. Analyze refers to a post-strike consideration based on evaluating any mistakes which may have occurred in the conduct of the

operation and to avoid committing similar errors in future operations. Disseminate refers to getting the message and intelligence to those who require it on a “need to know” basis.

It was advanced that one strategic shortcoming of this formula is its finality. By eliminating targets, the door to future intelligence is definitively closed. In this regard many writers have urged caution and called for a better balance in the kill/capture paradigm. The Obama administration was especially guilty of relying upon the strike versus capture option in its policy. It was suggested that part of the reticence to take captives, besides the adoption of a decapitation strategy were the negative repercussions related to the scandals of Abu Gharib, Guantanamo, accusations of torture, the tactic of waterboarding and the process of extraordinary rendition.

In the segment entitled, *The Elephant and the Mouse*, the advantages and disadvantages of asymmetry were considered. While it may seem counterintuitive to speak of the advantages of asymmetry, as they relate to the weaker side, it was shown that the weaker side in fact disposes of several important advantages in an asymmetric conflict. It was mentioned that overwhelming strength, and superior technology carry their own burdens related to complexity and logistics.

The rapid mobility of guerilla forces is but one distinct advantage. They can quickly evade contact and capture and blend into the surrounding environment. The element of surprise and the ability to mount lightning fast strikes, are other benefits. Finally, insurgent elements most often have no fixed or static positions to defend, making them less vulnerable to attack by the stronger force. Time is on their side and as Mao Tse-tung, opined, they need merely to wage a war of attrition and out wait the diminishing resolve of their adversary. Another decided disadvantage to the adoption of drones as a strategy, as opposed to using them properly as a tactic, is the fact that insurgents without hope or choice, will often resort to barbaric responses in desperation.

The discussion then evolved to cover considerations on the current battlefields. It was advanced that, while modern technology can provide certain strong advantages it is not a “one-shot-one-kill,” solution to the complexities of fourth generation insurgent warfare.

Unsurprisingly there have been numerous calls for a more comprehensive approach to conducting armed conflict; one which combines the human element with that of advanced technology, rather than having the latter exercise primacy over the former.

Chapter VII

“Every conclusion drawn from our observations is, as a rule, premature, for behind the phenomena which we see clearly are other phenomena that we see indistinctly, and perhaps behind these latter, yet others which we do not see at all.”

—Charles-Marie Gustave Le Bon (1895)

CONCLUSIONS AND RECOMMENDATIONS

Examination of the Four Hypotheses

An interesting phenomenon is that while conducting a lengthy research project, such as this, answers to the proposed hypotheses evolve on a day to day basis and can result in unexpected findings. The responses themselves are perhaps developed out of necessity for finding solutions to the problems which plague us. This is particularly the case with questions relating to military phenomena since the battlefields represent living laboratories where theories are tested and validated or eventually disproven over the course of time. The first two hypotheses we presented at the outset of this research have been positively validated or are in the process of validation, while the third and fourth show a strong positive correlation. We shall examine each of these hypotheses in turn.

The first hypothesis

The first hypothesis is somewhat rhetorical in nature. The widespread use of drones will become ever more prevalent in the modern battlespace. Reduced risk to personnel, plausible deniability, and increased public support, foreshadows an increased use of armed drones as the “go to” response for conflict resolution.

Given the inherent success of this technology in the hunter-killer role and its associated political expediency, it is the opinion of this research that resort to the use of armed drones will only increase in the future.

The assertions of this hypothesis have certainly been confirmed by a wide variety of sources, and barring any unforeseen changes in the geopolitical, environmental, or economic climate, this hypothesis is destined to be a rule rather than an exception in the near and immediate future. This has been confirmed and cited by numerous official sources and academic writers and has followed a predictable trend since the inception of the drone campaigns in 2002. The future most likely will entail the increased use of a combination of small units of specialized forces guided by enhanced intelligence and supported by remotely piloted aircraft.

Reduced risk to personnel, plausible deniability, and increased public support, foreshadows an increased use of armed drones as the “go to” response for conflict resolution. Again, not only will drones become more prevalent, as was asserted in the initial hypothesis, they will be resorted to more frequently as a form of conflict resolution for the many important reasons that have been outlined within this research.

To politically risk-adverse governments, they represent the best return on investment (ROI). Given the fact that they avoid capture and excessive loss of or injury to belligerent troops and thus meet with widespread public approval. They are, therefore, both politically advantageous

and expedient. They offer a measure of political deniability with proper control and under the right circumstances. They are economically efficient and can be easily replaced when compared with alternative weapons systems. They are precise and multi-faceted; they can gather vital information and intelligence and strike a devastating blow to an unsuspecting enemy. Any disadvantages are far outweighed by the advantages they offer.

The problem is that they are a tactical instrument and relying upon them as a political strategy for conflict resolution is a very short-sighted policy. Such reliance, over the long term, does more harm than good. Additionally, the facility afforded, by their enhanced impact and cost-effectiveness, may well lead to their abuse and unfettered use as an instrument of choice due to their political expediency. A lack of profound strategic reflection combined with the long-term negative consequences of such abuse remains a clear and present danger. There has been a distinct failure on the part of politicians to strategically employ Occam's razor rather than considering a more comprehensive strategy. War, much like a novel, has a beginning, a middle, and an end. The conclusion is as equally important, if not more so than the beginning. To reduce international conflict these post-conflict considerations will require much greater effort and commitment.

Additionally, it is not only the United States, at this point, which is employing drones, but other states as well. While the use of armed drones, has remained relatively modest, if it is not regulated at the international level by a designated body, this stable balance will not continue in the future. This has certainly been the case with other previous military technology. From the advent of the Egyptian war chariot, Hannibal's use of elephants, and the Bezerrillo attack hounds employed by the conquistadors to nuclear and biological weapons, anti-personnel mines, and improvised explosive devices (IEDs), tactics and technology have always evolved to meet

battlefield requirements. If one side has advanced technological military hardware, then the other side wants it and shall inevitably procure it, or at least develop a form of counter technology.

This was evidenced in the Reagan Strategic Defense Initiative (SDI) initiative.⁴²¹

The Second Hypothesis

The Second hypothesis proposed that “A new, revised, and enforceable set of laws and rules of engagement should be developed and clearly defined. They shall succeed only if they are shaped through unified political will and coherent, but flexible policies.

This has been the thrust and the contention of this book. Thus, an increased resort to this lethal technology also calls for some sort of oversight in its application.

While there have been numerous efforts to develop some sort of coherent policy, outlined within the corpus of this title, none of them have had any significant or conclusive impact. While such efforts have been meritorious, a group of researchers bantering ideas back and forth over a period of ten years does little to advance the cause of establishing an effective and functional framework. Meanwhile innocent people die. The only way to instill a change is through international mediation in the form of treaties and protocols and the establishment of an international regulatory body with effective powers of enforcement. The time for doing so is already past, and it is now time to play catch up. The fact that such a need still exists is evidenced by the never-ending polemic surrounding their use and failure to achieve agreement, which attests to the continued importance of finding a resolution. This task of self-regulation cannot be left to the individual States, given that historically international oversight is at best a weak instrument and that such a policy would further prove counterproductive to their own vested geopolitical interests. The problem is there is no international body with the power or

authority to force states to toe the line. This calls to mind the earlier, Cold-War nuclear doctrine of Mutually Assured Destruction (MAD). Perhaps the same sort of self-interest and fear of proliferation could eventually motivate states towards regulation.

The Third Hypothesis

The third hypothesis stated, “Unmanned aerial vehicles will become more independent, precise, and increasingly autonomous in the political and military decision-making process.”

More production and greater use shall also require more intensive training and more hours “in the air.” Mockenhaupt writing in 2009 presciently underlined that “...in coming years, the Air Force figures it will need more than one million UAV hours annually to be prepared for future wars.”⁴²² Jane Mayer bore witness to this prediction as well when she added “The government plans to commission hundreds more [drones], including new generations of tiny ‘nano’ drones, which can fly after their prey like a killer bee through an open window.”⁴²³ Nanotechnology represents an important component in the evolution of robotic warfare. Examination of this topic must, unfortunately, be reserved for future research efforts.

While some critics discount the possibility of such seemingly outrageous developments—particularly that of complete robotic autonomy, history has often shown that society has a propensity for underestimating its own technological wizardry. Singer also underscores this important point, concerning the promise that future technology may hold, compared with rash judgments of the period. He compares this pessimism with the reluctance to adopt the machine gun during WWI and the tank to replace the faithful and trusted horse; both decisions, which had their own catastrophic consequences for the skeptics.⁴²⁴ That the widespread use of drones will

become ever more prevalent in the modern battlespace, cannot be questioned given daily accounts on their widespread employment in the conduct of various military operations.

It might be considered the logical consequence related to the political and military allure of armed drones. Not only will they become more ubiquitous and numerous, they also shall exhibit increased autonomy through the use of artificial intelligence (AI). While not yet a *“fait accompli”* the amount of research and effort dedicated to bringing these ends offers partial validation of this hypothesis. Nawaz, for instance, considers that “Drone warfare is a sign of the times. Unmanned weapons systems and aircraft, whether operating on land or sea, appear to be ascendant in terms of preference and costs.”⁴²⁵ Mary Ellen O’Connell cogently adds, “The next developments in drone technology will be improvements in precision, reliability, and automation.”⁴²⁶ Such development obviously portends an increase not only in numbers, as suggested in the first hypothesis but in usage as well.

This evolutionary process, combining artificial intelligence (AI) and autonomy, has also been proven throughout the foundational research conducted and presented within this work. The trend is a steady, ever-increasing pace, which places more than fifty different nations currently at various stages in the development of fully autonomous aircraft.⁴²⁷ Previous statements by the Obama administration, concerning possible international regulation, hint at a concern for this expanding trend of proliferation. Such a call for international regulation was one of the main objectives of the research behind this book and appears to be inevitable in the future given the current state of geopolitical relations. Singer presciently alluded to such a paradigm, “We may even one day see the need to set up an international body to help the world navigate the tough issues that surround robotics, much like the World Health Organization or the International Atomic Energy Agency.”⁴²⁸ All three of the initial hypotheses, therefore appear, to be validated

and provide the basis for further research on establishing the actual specific boundaries and limitations associated with this new technology and its use. These concerns at the international level, it should be noted, extend beyond the military use and the employment of drone warfare addressed in this research.

The Fourth Hypothesis

This hypothesis was developed at a later point in the research.

The war against terror is both ideological and kinetic. A more coherent approach, such as that afforded by effects-based operations, is required to achieve any measure of lasting success. It has become abundantly clear we can no longer rely merely upon a tactic to defeat a violent ideology. While counterterrorism efforts must, by necessity include a physical response, equal efforts must also be afforded to ideological countermeasures as well.⁴²⁹ Thus, as reiterated frequently throughout this research, a different strategy and new approaches to combat this plague are called for. “Unfortunately, political, demographic, and religious trends since World War II indicate that the future wars will be complex, confusing, and nasty 4GW struggles rather than the simpler conflicts of earlier generations”⁴³⁰ presciently remarks Hammes. If this is indeed true—and it certainly appears to be, then civilization has come full circle, returning to Hobbes’ foreboding prognosis of “*continuall feare, and danger of violent death; And the life of man, solitary, poore, nasty, brutish, and short.*”⁴³¹ Which has been resuscitated, despite the existence of sound and organized government. In other words, a reversion to absolute or total war as opposed to limited progressive warfare with clearly defined goals.

One readily available instrument resides in enhancing cross-border security. To eliminate the danger, we must also eliminate the threat. This can be accomplished by restricting immigration

and enforcing enhancing controls at border entry points. Of course, this will not eliminate the threat, but it will go far in reducing it. Enforcing stricter controls and measures of security are not racist policies, as some allege. They are sound practices for ensuring national security. It makes no more sense to offer shelter and comfort to terrorists than it does to feed a rabid dog or to harbor and nurture a deadly disease.⁴³² Restricting the entrance of the threat reduces our need to combat it after the fact. Additionally, those subversive radical elements—already embedded within and being nurtured by the system, preaching violence and inciting the flames of hatred must be dealt with in a firm manner, facing either prison sentences or if feasible expulsion. Such policies must, of course, be balanced with legitimate humanitarian needs. Given the current geopolitical climate and the existential threats posed to States, the interests of national security must prevail first and foremost. Those truly in need of assistance should not be ignored or turned away. Balance, as so often stressed throughout this research, is the key.

Specific Recommendations

The critics and proponents of drone warfare present ethical arguments, statistics, studies and various research as well as their own interpretations in support of their claims. Unfortunately, none of these is sufficient enough, either by themselves or in conjunction with one another, to garner full support. There is a need to respect the reality on the ground and the position of the current research has been the following in that regard: Drones are legal when used in accordance with the law of armed conflict: point of law; they can also be an effective tool as part of an overall strategy. They should be used with parsimony and are not a replacement of all types of combat operations. They should adhere, as best possible, even given the fog of war, to the rules of law relating to noncombatants, while respecting the principles of necessity and

proportionality. Drone strikes should be based upon solid intelligence which has been verified by *multiple* sources.

1. Removal of the applicability of signature strikes as a legitimate criterion

The humanitarian constraints which are integral to the laws of war, which clearly establish and define noncombatants, must be respected. They must be respected not merely because they are ethically and legally binding, but for more pragmatic reasons as well. They are the right thing to do. The respect for the principle of discrimination is incumbent upon all states according to the laws of war. The failure to apply and follow the rules regarding the respect of noncombatant systems would automatically delegitimize the user and open the door for widespread abuse and retaliation. Respect of these rules is based upon long-standing historical precedent. Signature strikes are perhaps more accurately described by their pejorative sobriquet of “crowd killing.”⁴³³ A pattern of life, while it can certainly provide positive intelligence cannot serve as the single criteria for justifying the legitimate use of state-sponsored force. The signature strikes were first authorized by President George W. Bush for use by the CIA in Pakistan in 2008. While they still exist, they have garnered less attention in recent years, yet nevertheless remain a distasteful part of the counterterrorism strategy.

2. Establishment of an independent, international body for oversight and regulation.

One of the core suggestions of this research has been geared toward the possible need for the creation of an international supervisory board for the control of robotics. Such a board could, in principle, be delegated by the UNSC, a “5th Gen” Court or Committee, to draft, oversee and enforce guidelines and restrictions on the use of robotic and cybernetic warfare. The creation of such a body necessarily would face an uphill battle given the reticence of States to concede any

power to international bodies when it is not in their own interest. Another possibility would be the establishment of domestic “drone courts,” as proposed by Amos Guiora. These courts could, in turn, be overseen through international arbitration.

For the moment the fact is that the drones are not autonomous, and there is a human in the loop. There exist two considerations that would eventually render oversight a more pressing issue. The first is a massive proliferation of the use of robotic weapons. While we have spoken here only of aircraft, this consideration must be expanded to cover all types of platforms including ground vehicles and maritime craft as well. Widescale research and production is not some distant and imaginary concept is currently in the process of being materialized. The powerful States, which do not already dispose of such technology are well on their way to acquiring it, either through production or purchase. Enhanced technology will make these craft stronger, stealthier, faster and more lethal than ever before; the future is now.

The second consideration concerns that of full autonomy. Full autonomy exists. Autonomy in this respect refers to artificial intelligence (AI) and independent decision-making by robotic entities. The development and implementation of such technology is not a question of if, but one of when. Further research into the advantages and disadvantages (not just the advancement and development) and the ethical components requires further research and study. Such research should be conducted at present and incorporated at the time of research and development (R&D) and not after the “craft has rolled out from its hangar.”⁴³⁴ Closely related to the concerns about autonomy are similar concerns relating to nanotechnology.

Concluding Remarks

Research Questions

This research has been designed to examine the legal, ethical, moral, technological, and strategic aspects of these precise and lethal weapons, their intimate relationship with terrorism and to seek a response to the following questions:

1. *What are the existing moral, ethical, legal and technological boundaries involved in the use of unmanned aerial vehicles (UAVs) and uninhabited aerial combat vehicles (UCAVs)?*

Response: Are drones legal? The response is yes...but. The “but” in this instance, refers to the limitations and boundaries clearly established and laid out in the ground work of the current research. They are legally permissible when: used in a responsible and discriminate matter as a tactical weapon of choice. When employed as a counterterrorism strategy destined to save lives and restore justice. When they flout international law by the blatant disregard of sovereignty to satisfy vested national interests, they are neither legal nor ethically justifiable. They are ethically and morally repugnant when used excessively and in an indiscriminate manner or to execute and assassinate heads of state and impose policy in States with whom they are not at war.

There are no different or distinct legal boundaries which apply to the use of armed robotic aircraft as opposed to any other type of weapons system. They are bound by the same conventions which apply to bombers, ships and cruise missiles. On the other hand, there are a number of reflections which have been made as to the ethical and strategic value of such systems. Greater clarification and research will be required to elucidate the best possible practices in the use of such armament. This is particularly the case in regard to fully autonomous weapons systems. We have emphasized that while armed drones may be a legally permissible response to a threat they may not always be the most optimal political, strategic, or ethical

solution. The same reflections also extend to, as yet, untested and untried systems of the futures such as satellite warfare.

Are drones ethical and moral? Again, the response is a resounding yes, but only under the provisions specified and in conjunction with the guidelines provided throughout the body of this research. They are morally and ethically incumbent when they are used in accordance with the ideals of justice. When they are used to end suffering, alleviate hardship and restore justice. The moral and ethical use of drones in the combat against international terrorism correlates strongly with the legal justifications. As we have emphasized repeatedly throughout this research the relationship between, morality, ethics and law, while not identical is a very close one.

2. How do these boundaries relate to autonomy and discretion?

Response: Fully autonomous weapons systems will eventually place great strains upon both international law and international relations. The most pressing issue is one of responsibility and accountability. Who will be held accountable in the case of severe malfunction and violations of international law...engineers? Politicians? The military commander on the ground? IT technicians and data programmers? Perhaps all, none, or a mixture of these. Such ambiguity relating to legal, ethical, and strategic responsibility, discretion, and accountability needs to be addressed with great urgency. Fully autonomous systems are currently in use, while others have advanced significantly along the research and development chain. The best possible course of action is taken prior to some unforeseen catastrophe. Waiting for the “other shoe to drop,” should not be an option; it is waiting too long. Should other states begin to develop and employ robotic weapons systems with the same gusto and margin of flexibility as was exhibited by the Obama

administration, the result would be international chaos. Such lethal technology already exists in many states, all that is missing is foresight and international guidance.

3. Furthermore, how do these disparate phenomena interact and what specific criteria can be formally established and articulated between them?

Response: While the legal and ethical considerations are very closely linked they are by no means identical. As we mentioned earlier in this work, while ethical considerations are often later framed as legal edicts this is not a ubiquitous process by any means. Something may be entirely legal yet wholly unethical and vice versa. The key is in attempting to maintain a balance. There must be a greater regard for balancing international law with the power and vested interest of the individual states. This represents a herculean task and it is doubtful, given the historical record, that success may ever be completely guaranteed. As mentioned and proposed throughout the body of this text various international organs, agencies and commissions could, and indeed should, be involved in addressing these important issues relating to the legal and ethical use of all robotic development in general and lethal robotics in particular. Furthermore, while ethical implications are not legally binding they should induce pause for reflection. The ultimate goal of warfare, justice, has always been superseded by and relegated to an inferior position when held against the interests of state power.

Discourse by itself, regardless how clear or convincing, is simply an exercise in cognitive futility. It is simply not enough unless it is linked to some concrete proposals and offers of tentatively viable solutions. This research originally proposed and called for a modification and redrafting of the existing laws of war—that they be updated by international consensus to better

reflect the reality of armed conflict in the 21st century. A radical change of the legal regime could be avoided if a much more effective system of enforcement and control be implemented.

Also suggested were several initial steps which, with a modicum of goodwill, could serve to both enhance international security while limiting the exercise of abusive power and the expansion of armed conflict. This is a tall order bordering on the Utopian and dependent upon a global effort. If we do not plant the seed, however, the tree shall never grow, and it shall certainly never bear fruit. There are no absolute truths, no entirely right or wrong answers, merely more questions in the search for elucidation to many of these ethical, moral, and legal dilemmas. “Right,” or “wrong,” is a sliding scale and most often depends upon where you stand according to your own set of perceptions and beliefs at the time you express them.

Of course, some things are clearly wrong, cannot be tolerated and need to be rectified. This is the principle behind both natural law and common law. Slavery, genocide, terrorism (in its true sense), and piracy are *malum in se*—clearly wrong and need to be eradicated, but they must not become the springboard for yet further abuse and open the door to the expansion of national agendas. While theory lies in the domain of speculation, the time to pass from theory, to implementation by actors of change is largely overdue. The problems are real, the victims are real and the human loss and suffering on all sides is very real—everyone bleeds red. A new, viable and normative standard of ethical behavior is needed to reduce violence and enhance geopolitical stability. The most powerful nations must be the harbingers of peace and democracy, as well as the ones who defend the helpless and dispense justice where and when it is needed.

Many of the sources utilized within this book offer valuable insights. When examined collectively they offer possibilities for the formation of a logical and cohesive approach towards

defining a strategic policy regarding targeted killing and the issue of drone warfare. Drone warfare and targeted killing, both evil necessities, in the battle against transnational terrorism, are intimately linked as though they were some sort of Siamese twin of 5th—Generation warfare wreaking vengeance and dispensing justice to those who cannot defend themselves.

The findings of this research call for a blend of optimistic hopefulness, which is morally and ethically balanced by the constraints of power politics. Although laws appear to be monolithic, nothing in life is immutable and life itself is patterned upon a constant process of change and evolution. People change and so too must the societies in which they live. We have seen the important influence that ideas and perceptions hold over the development of normative ethics. Ethics, the foundational cornerstone of law, are nebulous and adapt accordingly to encompass new realities. Ethical changes will inevitably exercise a significant impact upon the laws they generate. We may hope one day to see an improved, more just and balanced strategy; a strategy fosters a more morally acceptable, ethically sound and strategically wise approach to conflict management and resolution. While there is indeed reason to be optimistic, there is also reason to fret over excessive complacency and back peddling which are wont to haunt all efforts at improvement.

It is important to point out that this dissertation has not merely been meant to serve an academic exercise in defining the distinction between existing positive law values, or those laws already existing, and normative values, or those that ought to exist. It is meant, rather, to serve as a real wakeup call for real action—a call for an active, efficient and effective restructuring of the laws of war—that they continue to carry the light of humanity into the darkest reaches of human conflict. Again, such a restructuring could be avoided if the proper enforcement mechanisms were to be implemented and seriously applied.

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APPENDIX A - GLOSSARY

4GW: (Also referred to as “netwar”) Fourth Generation Warfare: widely considered as guerilla type insurgency warfare commencing with Mao Tse-tung. Thomas Hammes defines 4GW as: the use of “all available networks—political, economic, social, and military—to convince the enemy’s decision makers that their strategic goals are either unachievable or too costly for the perceived benefit.”⁴³⁵

9-Line Command: The sequential checklist and command to be entered when engaging a target

AAR: Air-to-air refueling

AASM: Armement Air-Sol Modulaire (Air-to-Ground Modular Weapon)

ABI: Activity Based Intelligence

ACF: Anti-Coalition Forces

AFO: Advance Force Operations (most often occurring in zones that are not official battle-zones).

AGI: Artificial General Intelligence (Strong AI)

AGF: Anti-Governmental Forces

AGM: Air to Ground Missile

AI: Artificial Intelligence/Airborne Interceptor

ANSA: Armed non-state actor

AO: Area of Operations

AOI: Area of Influence

AOR: Area of responsibility

APG: Aerial Precision Geolocation.

AQAP: al-Qaeda in the Arabian Peninsula (formerly AQY)

AQI: al-Qaeda in Iraq

AQIM: al-Qaeda in the Islamic Maghreb

AQSL: al-Qaeda Senior Leadership

AQY: al-Qaeda in Yemen

ARGUS-IR/IS: Autonomous Real-time Ground Ubiquitous Surveillance – Infrared/ Imaging System (successor to Gorgon Stare)

ASCOPE: Areas, Structures, Capabilities, Organizations, People and Events. (Mission Variables).

ASEA: Active Electronically Scanned Array

ATO: Air Tasking Order:

ATR: Automatic target recognition

AUMF: S.J. Res. 23 (107th): Authorization for Use of Military Force

ATOLS: Automatic Take-off and Landing System

AUV: Autonomous Underwater Vehicle

AUVSI: The Association for Unmanned Vehicle Systems International

AWS: Autonomous Weapons Systems

Azimuth: Is basically a triangulation between True North (vector), the position of the aircraft to the level of the horizon and the Ground Control station (GCS).

APPENDIX A - GLOSSARY

BAI: Battlefield Air Interdiction

BAMS: Broad Area Maritime Surveillance (unmanned aerial system)

BDA: Battle Damage Assessment

Bellum iustum: Just War Theory comprised of jus ad bellum, jus in bello and jus post bellum

BIJ: Bureau of Investigative Journalism, based in the UK

Blinking: Spaces of interrupted FMV coverage when there are insufficient assets, but potentially anything that slows or degrades the intelligence process (McChrystal, 2013)

BLW: Blinding Laser Weapon

BRAA: Bearing, range, altitude and azimuth

BVR: Beyond visual range

BWC: Biological Weapons Convention, 1972

C2: Command and Control

C3I: Command Control Communication and Intelligence

C4: collaboration, communication, cooperation, and coordination

C4ISR: Command, control, communications, computers intelligence, surveillance and reconnaissance

CA: Combat Assessment

CAPs: Combat Air Patrols

CAPECON: Civil UAV Applications and Economic Effectiveness of

Potential Configuration Solution – European Commission.

CAS: Close air support

CBP: Customs and Border Patrol

CCF: Continuous combat function

CCO: Complex Contingency Operation

CCWC: Conventional Weapons Convention, 1980

CDE: Collateral Damage Estimates

CDM: Collateral damage methodology

CETMONS: Consortium on Emerging Technologies, Military Operations, and National Security

CEP: Circular Error Probable. Based on the radius of a circle. The calculation being that at least 50% of rounds dropped or fired will land within the CEP.

CIL: Customary International Law

CIVCAS: Civilian Casualties

CJCS: Chairman of the Joint Chiefs of Staff

CMT: Continuous memory task

CNO: Computer Network Operations

COA: Course of Action

COAC: Combined Air and Space Operations Center

CODE: Collaborative Operations Denied Environment. This is a swarm technology being developed by DARPA.

APPENDIX A - GLOSSARY

COF: Correlation of Forces (Соотношение сил/Sootnosheniye sil, in Russian) a Cold War comparative power doctrine developed by the former Soviet Union and similar in approach to that of EBO's except having a decidedly Marxist-Leninist axis. "A relative alignment of two opposing forces, or groups of forces."⁴³⁶

COIN: Counterinsurgency

COMINT: Communications Interception

COMSEC: Communications Security

CONOPS: Concept of Operations

COTS: Commercial off-the-shelf hardware or technology.

CPU: Central Processing Unit

CSAR: Combat search and rescue

CTL: Candidate Target List

CWC: Chemical Weapons Convention, 1993

D3: Dull, Dirty and Dangerous

D3A: Decide, Detect, Deliver and Assess (US Army FM 3-60 The Army Targeting Process Nov. 2010).

D4: Dull, Dirty, Dangerous and Dollars

DAESH: acronym for the Arabic phrase al-Dawla al-Islamiya al-Iraq al-Sham (Islamic State of Iraq and the Levant). Disliked by ISIS synonymous group) due to its pejorative semantic associations.

DARPA: Defense Advanced Research Projects Agency

DAS: Defensive Aids Suite(s)

DASS: Defensive Aids Sub-System(s)

DCGS: Distributed Common Ground System – A (Army); AN/GSQ-272 Sentinel (Air Force). The primary ISR gathering system for these two military branches

DCI: Director of Central Intelligence (CIA)

DDE: Doctrine of Double Effect. The proportional allowance of serious harm in the quest for positive consequences.

DE: Direct Energy (weapons)

DEAD: Destruction of enemy air defenses

DHI: Declared Hostile Individuals

DIA: Defense Intelligence Agency

DITSUM: Daily Intelligence Summary (DIA)

DMO: Discreet Military Operations

DNR: Dialed Number Recognition

DoD: US Department of Defense

DOJ: US Department of Justice

DPH (-ing): Direct participation in hostilities

DSA: Detect Sense and Avoid technology

EBO: Effects-Based Operations: Combines the 5 elements considered

APPENDIX A - GLOSSARY

to be related to National power, to wit: Military, Diplomatic, Economic, Psychological and Informational.

EC: Electronic Combat

ECM: Electronic Counter-Measures

ECP: Effective Collection Priority

EEI's: Essential elements of information. At the tactical level, this could be the movement of an HVT or courier, an IED emplacement or alternatively a random heat signature picked up by the IR detector.

EKIA: Enemy Killed in Action

ELOS: Electronic Line of Sight

ELSUR: Electronic Surveillance

EMD: Effective Miss Distance

EMP: Electro-magnetic pulse

ENMOD: Environmental Modification

EO: Electric orbital. Executive Order

ERMP: Extended Range Multipurpose. Such as the US Army Warrior platform, and the later version, the MQ-1C Grey Eagle

EWIA: Enemy Wounded in Action

F2T2EA: find, fix, track, target, engage, and assess

F3EAD: Find, Fix, Finish, Exploit Analyze and Disseminate (also referred to as Fead aka feed)

FATE: Future Aircraft Technology Enhancements

FEBA: Forward edge of the battle area

FIBUA: fighting in built-up areas

FISA: Foreign Intelligence Surveillance Act, 1978.

FLET: Forward Lines of Enemy Troops

FLIR: Forward looking Infrared Radar

FMV: Full Motion Video

FOB: Forward Operations Base

FOIA: Freedom of Information Act

FOPEN: Foliage penetration radar

FRL: Former regime Loyalists (Saddam Hussein supporters)

FS: Fire Scout, Rotary UAV

FSCOORD: fire support coordinator

FSO: Full Spectrum Operations (Combat power through: offense, defense, stability, and civil support)

FTO: Foreign Terrorist Organization

FY: Fiscal Year

GBU: Guided Bomb Unit

GCHQ: Government Communications Headquarters (UK)

GCS: Ground Control Station (sometimes also referred to as "the box")

GDT: Ground data terminal

G-LOC: Abbreviation for G-force, Gravity-Induced Loss of Consciousness

APPENDIX A - GLOSSARY

GMTI: Ground Moving Target Indicator

GRASP: General Robotics, Automation, Sensing and Perception

GWT: Global war on terrorism

HALE: High-altitude long endurance

HAMAS: Harakat al-Muqawamah al-Islamiyyah

HCI: Human – computer interface

HCN: Host country nationals. refers to those war zone nationals who were working on base.

HF: Human factor

HFACS: Human Factors Analysis and Classification System

HMLV: High Maneuverability Lethal Vehicle (concept)

HN: Host Nation, or host national

HPM: High power microwave systems

HPT: High Payoff Target: is one whose loss to the enemy will significantly contribute to the success of the friendly course of action

HPTL: High Payoff Target List

HRC: The Human Rights Council of the United Nations

HSI: Human System Integration

HUD: Heads up Display. Located on the pilot's center screen when flying an RPA. It shows the current aircraft readings and is projected atop of an existing image.

HUMINT: Human Intelligence

HVD: High Value Detainee

HVT: High Value Target

I2P2: Imminence and Intent, Preemption and Prevention

IAC: International armed conflict: conflict involving 2 or more states

IADs: Integrated air defense system

IAW: Independent Autonomous Weapon

IC: Intelligence Community

ICC: International Criminal Court: Responsible for the prosecution of international crimes.

ICCPR International Covenant on Civil and Political Rights

ICISS: International Commission on Intervention and State Sovereignty

ICJ: International Court of Justice: The judicial body responsible for the adjudication and settlement of inter-State claims.

ICRAC: International Committee for Robot Arms Control

ICRC: International Committee of the Red Cross

ICT: info-communications technologies

IDF: Indirect fire. The enemy has no specific target, such as with a mortar attack

IED: Improvised Explosive Device

IHL: International humanitarian law

APPENDIX A - GLOSSARY

IHRL: International human rights law

IL: International Law

ICL: International Customary Law

ILC: International Law Commission

IO: International Organizations

IPB: Intelligence Preparation of the Battlefield

IR: Infrared.

IRGC: Iranian Revolutionary Guard Corps

IRTPA: Intelligence Reform and Terrorism Prevention Act of 2004

IS: Islamic State, general umbrella term for the different terrorist organizations such as ISIL. ISIS, Daesh, etc....

ISAF: International Security Assistance Force

ISI: Inter-Services Intelligence (Pakistan)

ISIL: Islamic State of Iraq and the Levant: See IS

ISIS: Islamic State in Syria. alternatively: Islamic State in Iraq and al-Sham

ISR: Intelligence Surveillance and Reconnaissance

ISTAR: Intelligence, surveillance, target acquisition, and reconnaissance

Ius cogens: peremptory norms

IW: Irregular Warfare

Jackpot: When an intended target is struck and eliminated they are referred to as a "jackpot"

JAG: Judge Advocate General. The legal branch of the U.S. Military

JAOC: joint air operations center

JCS: Joint Chiefs of Staff

JDAM: Joint Direct Attack Munition

JFC: Joint Force Commander

JFCB: Joint Force Coordinating Board: "A group formed by the joint force commander to accomplish broad targeting oversight functions that may include but are not limited to coordinating targeting information, providing targeting guidance and priorities, and refining the joint integrated prioritized target list. The board is normally comprised of representatives from the joint force staff, all components, and if required, component subordinate units. Also called JTTCB."⁴³⁷

JFE: joint fires element

JIOC: joint intelligence operations center

JIOWC: Joint Information Operations Warfare Command

JIPOE: joint intelligence preparation of the operational environment

JIPTL: joint integrated prioritized target list

JOC: Joint Operations Center

JOPES: Joint Operation Planning and Execution System

APPENDIX A - GLOSSARY

JPEL: Joint Prioritized Effect List – basically the hit list for designated targets seeking specific effects

JPRC: Joint Personnel Recovery Center. Responsible for CSAR missions.

JSOA: Joint Special Operations Area

JSOC: Joint Special Operations Command

JSTARS: Joint Surveillance Target Attack Radar System

JTAC: Joint terminal attack controller. the point of contact between the pilot and the joint operations center which provides authorizations to “go hot” (fire).

JTF: Joint Task Force

JTL: Joint Target List

Jus ad bellum: Just declaration of war

Jus ad vim: Force short of war

Jus ex Bello: Continuance or cessation of hostilities

Jus in bello: Just conduct during war

Jus Post Bellum: Just conduct following war

JWT: Just War Theory

KEEL® Technology “Knowledge Enhanced Electronic Logic”

KLE: Key Leader Engagement: Power relations between unit commanders and key civilian figures, such as at a Jirga (traditional group palaver)

KST: Known or Suspected Terrorist

Kt: Knots. 1 Knot equals 1 nautical mile or approximately 1.51 mph or 1.852 km/h

LAR: Lethal Autonomous Robot

LCC: Life Cycle Cost

LGB: Laser Guided Bomb

LMM: Lightweight Multirole Missile

LMO: Legitimate military objective

LNO: Predator/Reaper Liaison Officer. The function coordinates Reaper missions in that specific region.

LOAC: Law of armed conflict

LOCUST: Low-Cost UAV Swarm Technology. A swarm technology program sponsored by the U.S. Navy’s Office of Naval Research

LOS: Line-of-sight

LOW: Law of war

LRE: Launch and Recovery Element

LWR: Laser Warning Receiver

M2M: Man, to Machine: A view of integrated and cohesive joint teamwork between man and machine.

MA: Manned Aircraft

MAAP: master air attack plan

MALE: Medium-altitude long endurance

MAM: Military Aged Male

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MANPADS Man Portable Air Defense Systems

MASINT: Measures and Signals Intelligence

MATC: Marine Air Traffic Control

MAUV: Maritime unmanned aerial vehicle

MAV: Micro air vehicle

MCC:

MCE: Mission control element

MCO: Major Combat Operations

MDMP: Military Decision-making Process

MEA: munitions effectiveness assessment

MEMS: Microelectromechanical systems

METT-TC: Acronym reminder to field commanders of priorities: Mission, Enemy, Terrain, Troops – Time available and civilian considerations

MFAS: Multi-function active-sensor radar system.

MISREP: Mission Report

MITL - Man-in-the-loop

Morality of Altitude: psychological separation of pilot from destruction.

MLAW Missile Launch and Approach Warner

MOE: measure of effectiveness

MOP: measure of performance

MTI Moving Target Indication

MTOW: Maximum takeoff weight

MTS-A: Multi-spectral Targeting System

MON: Memorandum of Notification

MUAV: Miniature unmanned aerial vehicle

NAI: Named Area of Interest

NCW: Net-centric Warfare: Theory of technology as the primary factor in increasing battlefield efficiency. Closely related to RMA.

NGA: National Geospatial Intelligence Agency

NGO: Nongovernmental Organization

NIAC: Non-international armed conflict. Internal state conflict, e.g., insurgency

NIE: National Intelligence Estimate

NPR: National Public Radio

NRO: National Reconnaissance Office

NSA: National Security Agency

NSC/PC: National Security Council Principals Committee

NSL: No strike list

NSS: National Security Strategy

NUAV: Nano-unmanned aerial vehicles

NUC: nonuniformity correction. The 23 second recalibration process

APPENDIX A - GLOSSARY

related to the targeting pod on Predators and Reapers.

ODNI: Office of the Director of National Intelligence

OGC: Office of General Counsel (CIA)

OE: Operational Environment

OLC: Office of Legal Counsel (DOJ)

ONR: Office of Naval Research

OOA: Out of Area

OOB: Order of Battle. The description of a forces' total available military manpower and equipment.

OODA: Observe, orient, decide and act

OODR Observe, Orient, Decide, React

OPFOR: Opposing Forces

OPLAN: Operation plan

OPORD: Operation order

PA: Probability of arrival

PAM: Precision Attack Munition

PB: Patrol Base

Pd: Probability of damage

PDD: Presidential Decision Directive

PEST: Political, Economic, Social and Technological factors related to EBO operations and the general evolution of warfare.

PGM: Precision Guided Munition

PID: Positive identification

PIL: Public International Law

PIO: Pilot induced oscillation. An overcorrection on the part of a pilot often induced from countered heavy crosswinds or turbulence. This has been replaced in the USAF to infer pilot-in-the-loop oscillation, thus moving away from a blame mindset. At its most basic form PIO is pilot overcompensation.

PIR: Priority intelligence Requirement

PK: Probability of Kill

PMESHII-PT: Political, Military, Economic, Social, Infrastructure, Information, Physical Environment and Time (Operational Variables).

POC: Point of contact/Predator Operations Center

POL: Petroleum, oil, and lubricants

POO: Point of origin: Triangulation of incoming fire.

PPSL: Predator Primary Satellite Link.

PRF: Pulse repetition Frequency. The infrared system in weapons can detect the PRF in a laser beam (sort of Morse code for weapons). This means that an alternative aircraft can use their laser to guide the weapons of another aircraft. This is referred to as "lasing" and can be performed by high altitude aircraft such as the Predator and Reaper.

PRISM: Officially labeled by the SIGAD, US-984XN. A widespread FBI-based spying program which

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parses foreign data from numerous US internet servers. In 2012 this program was responsible for 1,477 products captured from the internet

PSYOPS: Psychological Operations

QC: Queens Counsel recognized and appointed by the Crown. Merit based

R2P: The Right to Protect, also RtoP and RTP; concept adopted by the UN in 2005. Ties state sovereignty to the protection of its population.

R&D: Research and development

RDT&E: Research development test and Evaluation

Reachback/ Remote split Operations. This is a system whereby takeoff and landing are done in-theatre while actual in-flight control is handled as far as 7500 miles away.

RFI: Request for information

RISTA Reconnaissance, Information Surveillance and Target Acquisition

RoE: Rules of engagement

ROVER: Remote operated video enhanced receiver

RMA: Revolutions in military affairs

ROI: Report on Investigation

ROYG: Republic of Yemen Government

RPA: Remotely piloted aircraft

RPV: Remotely piloted vehicle

RSO: Remote split operations

RTB: Return to base. UAV's are programmed to return directly to base should they lose the satellite connection

RTOL: Rotary Takeoff and Landing Vehicle

RtoP or R2P: Responsibility to Protect

RUAV: Rotary unmanned aerial vehicle

RUSI: Royal United Services Institute. Founded 1831, oldest strategic think tank of its type.

RVT: Remote video terminal

SAR: Synthetic Aperture Radar

SCOTUS: Supreme Court of the United States

SCS: Special Collection Service. A highly specialized USIC interagency service, first established in 1970. Joint oversight by the CIA and NSA. Part of a larger parent program designated "Stateroom," and part of the ECHELON network.

SDR: Surveillance Detection Route (counter surveillance TTP)

SEAD: Suppression of enemy air defenses

SELECTORS: Metadata indicators: computer activity, email addresses, cell phone numbers and messages, employed in SIGINT and gathered in the F3EA process for identification of targets

SI: Swarm Intelligence

APPENDIX A - GLOSSARY

SID: Signals Intelligence Directorate of the NSA

SIE: Stateless international entity

SIGAD: SIGINT Activity Designator

Signature Strike: A method of targeted individuals based upon patterns of suspicious activities.

SITREP: Situation Report

SKA: Skills, Knowledge, Action

SMAVNET: Swarming Micro Air Vehicle Network

SO: Sensor Operator the other half of theUCAV team along with the pilot

SOCOM: Special Operations Command

SOD: Systemic Operational Design. An Israeli system which applies strategic direction and policy to operation ends. Similar in scope to EBO. Like the OODA loop it is cyclic: design, plan, act and learn.

SOFA: Status of Forces Agreement

Spin-up: Refers to preparing the AGM Hellfire missiles for launch-

SRMP: Strategic Risk Management Planning or Process

SROE/SRUE: Standing rules of Engagement/Use of Force

SRS: Swarm Robotic Systems

SSCI: Senate Select Committee on Intelligence

SSE: Sensitive Site Exploitation

SSO: Special Service Operations

STAR: Sensitive target approval and review

STUAS: Small Tactical Unmanned Aircraft Systems

SUAS: Small unmanned aircraft system

SV: Signals Intelligence Directorate, Oversight & Compliance

SWEAT-MSO: Relates to counterinsurgency strategy and basic infrastructure needs. Sewers, Water, Electricity, Academic, Trash, Medical Facilities, Safety and Other

TAC: Transnational armed conflict

TACWAR: Tactical Warfare System

TADS: Terrorist Attack Disruption Strikes. Signature strikes in Yemen

TAI: Target area of interest

TAO: Office of Tailored Access Operations. Cyber intelligence section of the NSA

TAR: Targeting Rationale

TDN: target development nomination

TF: Task Force

TIC: Troops in contact. Ground troops engaged in direct contact with the enemy

TIDE: Terrorist Identities Datamart Environment

TK: Targeted Killing

TLAM: Tomahawk, Land Attack Missile

APPENDIX A - GLOSSARY

TLC: Tomahawk launching canister

TNL: target nomination list

TOC: Tactical Operations Center.
Controls the operations and movements of ground units.

TOCA: Transnational Organized Criminal Activity (or analysis)

TOUCHDOWN: A strike which eliminates a target based upon cell phone signals emission and capture

TSDB: Terrorist Screening Database

TSS: Target Selection Standards.
Criteria designation whether a given entity can be considered a target.

TSTs: Time sensitive targets

TTPs: Tactics, Techniques and Procedures.

UAS: Unmanned Aircraft System: consists of: GCS, PPSL, 4 Sensor/weapons craft, operations and maintenance crews and spare equipment.

UAV: Unmanned aerial vehicle

UCAV: Uninhabited combat aerial vehicle

UCLASS: unmanned Carrier Launched Airborne Surveillance and Strike System

UCMJ: Uniformed Code of Military Justice: (US Military body of law)

UCV: Unmanned combat vehicles

UL: Ultralight aircraft

UMS: Unmanned systems

UMV: Unmanned Vehicle

UNHCR: United Nations Commission of Human Rights

UNSC: United Nations Security Council.

UNSCR: United Nations Security Council Resolution

UPSTREAM: Communications captured by the NSA from fiber cable transmissions (as distinct from the PRISM operation).

URAV: Uninhabited Reconnaissance Air Vehicle

USAV: Unmanned Strike Air Vehicle

USP: US Person

UTA: Unmanned/uninhabited Tactical Aircraft

UTAV: Unmanned Tactical Air Vehicle

UxS: Unmanned vehicle systems (examples: “x” is “aerial”, “aircraft”, “underwater”, “combat air”, “manned”, etc.

VCT: Video capture technology. E.g., Gorgon Stare.

VTOL: Vertical Takeoff and Landing vehicle

VTUAV: vertical take-off and landing tactical unmanned aircraft vehicle

WAPS: Wide-Area Persistent Surveillance systems.

Wetware: hardware/software concept as applied to human biology

APPENDIX A - GLOSSARY

WEZ: Weapons Engagement Zone.
Usually delimited to an effective
range of less than a 1 km radius.

WMD: Weapons of mass destruction

WSO: Weapon Systems Officer

XFC: Experimental Fuel Cell

APPENDIX B – THEORETICAL FRAMEWORK

Elements from structurally applicable philosophical frameworks have been considered. They have been either adopted, incorporated, enhanced, derived from or either partially or entirely discarded as irrelevant:

1. Utilitarianism: is a theory of principles founded upon normative ethics—the way things should be ideally, not necessarily how they are. The most renown proponents of the theory are Jeremy Bentham and John Stuart Mills. Sometimes, the theory is expressed as the *greatest good for the greatest number*. It is strongly correlated with consequences. There are several distinct subdivisions to this philosophy, including act utilitarianism, rule utilitarianism, total and consequentialism, which itself is depicted in the axiom “the ends justifies the means.” This perspective is strongly related to that of consequentialism.
2. Liberalism: Was born out ideology developed during the age of enlightenment. The two most prominent features are individual liberty and the concept of equality. It is a philosophy which privileges the rights of the individual over those of the collectivity. The preeminent representative of liberalism is John Locke. Many of the

popular revolutions found their motivation in or were influenced by liberal ideology, including the British Bloodless Revolution and the French and American revolutions, and much later the Russian or Bolshevik Revolution. In the early 20th century, liberalism was not far removed from the ideologies of socialism. There are different forms of liberalism which represent a large swath of views and philosophical outlooks.

3. Liberal multiculturalism: While there is no real consensus among political philosophers, as to what precisely multiculturalism entails, the term has been widely used as catchall phrase relating to what are considered disadvantaged or minority groups. This includes Native and indigenous tribes and peoples, the homosexual community, Black and Latin Americans, religious sects, as well as the elderly and disabled among others. Increasingly, the term has become nearly synonymous with the international phenomenon of widespread Muslim Immigration. This school of thought largely emphasizes advancing the rights and privileges of minority groups to the disadvantage of the indigenous population. Thus, more stabilizing features of

APPENDIX B – THEORETICAL FRAMEWORK

social integration, adaptation, and assimilation are sacrificed in favor of the supposed advantages associated with multicultural diversity.

4. Liberal multilateralism: Considered by some authors as global governance or international governance or more pejoratively as “globalists,” or the one world government. It is the opposite of realist unilateralism. The NATO organization is an example of multilateralism, as are the World Bank, the World Trade Organization (WTO), and the World Health Organization (WHO). The most prominent example being that of the United Nations. Of course, other forms of world leadership, such as unilateral, or bipolar balances of power are repugnant to multilateral adherents with patriotic nationalism topping the list of odious institutions. Much like Internationalists they too believe in the benefits of one world governance. While, multilateralism supposedly gives voice to the “little people,” that is the smaller states, how much this is the case remains highly questionable in the face of vested state interests. The best-known proponent of this school is Joseph Nye.

5. Liberal Internationalism: The cornerstone philosophy of democratic politics. Liberal internationalism stands at the polar extreme from realism. It favors the concept of international organizations overseeing and controlling the actions of states, in exchange for the surrender of sovereignty. This is sometimes depicted as the “One World Government.” One of the first utopian supporters of such an approach was U.S. President Woodrow Wilson, with his largely ineffectual League of Nations, which gave way to the equally rather dysfunctional United Nations. While military intervention is eschewed in favor of non-interventionism, liberal internationalism does condone armed force in the case of humanitarian intervention and restrictive national self-defense. Despite this being a largely pacifist doctrine, liberal internationalism, dragged the U.S. into armed conflicts on no less than 4 occasions under the Clinton Administration: Haiti, The Kosovo intervention, Bosnia and in Somalia.
6. The Ethics of Duty theory: otherwise, referred to as deontology. One of the most well-known proponents and developers of this theory was Immanuel Kant. Kant used pure reason and free will as

APPENDIX B – THEORETICAL FRAMEWORK

the foundation for the development of his categorical imperatives. It is a rule-based theory and stands in marked contrast to other theories such as consequentialism and utilitarianism. Some acts are inherently wrong in themselves regardless of whether they result in a positive outcome or not. Conversely, with deontological principles we are meant to adhere to a specific set of rules, regardless the outcome. This principle has great merit for military science.

7. Complexity theory: First developed in the 1960s, is known under several appellations. It is multidisciplinary in approach and derived from organizational theory, chaos theory and strategic risk management processes and fuzzy logic among others. Part of the central focus is how independent actors or elements function as a part of system. This also relates to the concept of nanotechnology and the concept of an integrated mothership. The simplest representation of this theory is the recognition that complex systems, such as autonomous drones, are a web of interdependent component parts dynamically interacting. They interact according to some basic

rules, which in turn produce complex behavior; behavior which cannot be derived from consideration of the individual components themselves. In a word understanding order derived from apparent chaos.

8. Chaos theory: relates to the random nature of events that are outside the understanding of formal science. In this sense Chaos theory is closely related to complexity theory. One of the defining features of chaos theory is unpredictability. It is unsurprising then, that chaos theory concerns itself with unpredictable and randomly generated phenomena such as, the stock market, weather, elements from nature, human thought rather than with more scientifically based measurable phenomena. Fractal mathematics, also referred to as evolving or expanding symmetry, is related to chaos theory. Fractals often occur in nature. Accordingly, minor changes at the outset can result in major impacts. A fractal represents an infinite, complex, recursive pattern. More simply, regarding autonomous drones, it represents an endless feedback loop endlessly recreating a simple process. Fractals are extremely complex but are repeated via a very simple process.

APPENDIX B – THEORETICAL FRAMEWORK

9. Game theory (Neumann and Morgenstern): is a well-established theoretical paradigm and model of international relations. It is employed across a wide spectrum of disciplines including: biology, psychology, economics, political science. As a social science application much of its focus centers upon “zero-sum games. Quite simply, Zero-sum games are models whereby the benefits or advantages accrued by one individual correspondingly relate negatively to losses or a disadvantage for another. Game theory incorporates the principles of the rational choice theory (RCT) and the rational actor.
10. Postcolonialism theory: Is relatively self-explanatory. It relates to the impact and consequences of imperialism and colonial control over indigenous ethnic groups and how such events relate to international relations. Scholar Edward Saïd’s *Orientalism* (1978), is a description of just such interaction and preconceptions.
11. Isolationism: Modern interpretation of earlier political views such as that promulgated by George Washington’s farewell address and the Monroe

Doctrine has been largely revived and advanced by the writer Patrick Buchanan, strongly influenced by Patrick Kennedy’s *The Rise and fall of the Great Powers* (1987). This theory projects a withdrawal of U.S. involvement in international affairs.

12. Classical realism: Realism concerns the philosophy of interstate relations. The most notable and best-known proponents of realism are Thucydides, Thomas Hobbes, St. Augustine and Niccolò Machiavelli with other notable adherents such as Hans. J. Morgenthau and Henry Kissinger. The struggle for vested interest results in a balance of power through interstate relations and the tension this competition engenders lies at the very heart of realist theory. States are anarchic in nature and warfare is an inevitable phenomenon related to that conflict. Realists tend to be moral relativists as well (see below). Other branches which developed from Classic realism include neorealism (or structural realism), neoclassical realism, democratic realism and modern democratic realism.
13. Communitarianism: relates to the fractional, ethnic and multicultural dimensions of

APPENDIX B – THEORETICAL FRAMEWORK

international relations. The early principles trace their origins as far back as Aristotle, with further development being made by the famed German idealist philosopher Georg Hegel. Later developments can be traced to philosopher John Rawls, and his work “*A theory of Justice*,” Rawls is the archetype of the ultimate liberal socialist.

Communitarianism reflects the interplay of religion, ethnicity and culture and their impact upon power politics. Samuel P. Huntington’s seminal opus *The Clash of Civilizations* relates precisely to this theme and clearly elucidates the dangers represented by such phenomena.

14. Neorealism: sometimes referred to as “structural realism,” is a theory relating to international relations. The core element is relationship of power and governance and how they interact. It was first developed in 1979, by Kenneth Waltz, in his work, “*Theory of International Politics*.”
15. Democratic realism: Notably represented in the writings of Robert G. Kaufman, an ardent supporter of George Bush’s neo-con policies, posits, and supports what he depicts as an ostensibly benign unipolar position of power bestowed by right

upon the U.S. He views the United States as a prudent unilateral enforcer of Judeo-Christian morality. Principles backed by force for effecting regime change. It is power politics disguised as a moral imperative.

These sentiments were echoed by the controversial political commentator Charles Krauthammer, who coined the term “Reagan Doctrine, and who is the quintessential Democratic Realist. He is perhaps best known for his monograph on foreign policy, “*Democratic Realism: An American Foreign Policy for a Unipolar World*. Krauthammer, despite falling into the neoconservative realm of political thought, is equally critical of neoconservatives as he is of political realists. “The rationality of the enemy is something beyond our control. But the use of our power is within our control. And if that power is used wisely, constrained not by illusions and fictions but only by the limits of our mission—which is to bring a modicum of freedom as an antidote to nihilism—we can prevail.”⁴³⁸

16. Democratic globalization is a liberal neo-pacifist social movement which sees global citizens as the individual arbiters of their own destiny. According to this movement individuals should be vested

APPENDIX B – THEORETICAL FRAMEWORK

with powers of autonomy and self-determination. Following such a perspective means that international institutions, such as NGO's and multinational corporations would no longer have free rein but would also be subject to the desires of institutionalized democracy where individuals would be able to exercise an impact upon such entities. Related to this social movement, there has been a screed entitled *Manifesto for a Global Democracy* published.

17. Moral democratic realism (as typified by the Reagan and Bush administrations according to Robert G. Kaufman): the spread of liberal democratic values Founded more explicitly upon Judeo-Christian ethics than democratic realism. Tighter geopolitical limits on the use of US power (as evidenced by Reagan). The spread of liberal democratic institutionalism, supported by regime change, where necessary.

18. Revolution in Military Affairs theory (RMA): Is an organizational concept based upon radical advances in technology as a driver of change. It was first developed by Soviet military thinkers, notably by Marshal Nikolai Ogarkov during the latter part of the 20th century. It expanded as a school of

thought to other major superpowers including China and the U.S. Today it is a core principle to 5th Generation (5G) Warfare. This perspective includes advances sought in organizational approaches; the multidimensional battlespace (including spatiotemporal considerations); Intelligence, surveillance, target acquisition and reconnaissance (ISTAR) capacity; robotics, nanotechnology, biotechnology, cybertechnology (including net-centric warfare), among others. This perspective tends to favor technological progress over that of traditional military doctrine and battlefield tactics. It should, however, be noted, as Thomas Hammes points out that RMA is little more than the product of an evolutionary process by the military responding to different needs in the battlespace.

19. Identity politics: This represents what some refer to as minority politics (although they are not exclusive to minorities). Identity politics stand in contradistinction to main party politics. Environmental and religious parties are an example. People from various political alliances based upon common values such as race, religions,

APPENDIX B – THEORETICAL FRAMEWORK

sex or ideology. This is closely related to the concept of liberal multiculturalism.

20. Moral Relativism: Holds that decision-making and judgments regarding moral or ethical issues are judged as either correct or incorrect, according to a specific framework, such a cultural, linguistic, historical, ethnic, or personal and as such represent a specific perspective. They are thus, subjective by nature and one is no more valid than any other. Adopting such a position is to admit there are no universal morals that they are specific to each culture and under each set of circumstances.

APPENDIX C – LEGAL DOCUMENTATION

The Hague Conventions (1899, consisting of 4 articles and 3 additional protocols and the Conventions of 1907 comprising 13 articles) Entered into force January 26, 1910. Those which apply most closely to the in-bello principles and IHL are: II, IV,2; IV,3; XIV; and the additional Geneva Protocol of 1925. Refer for instance to:

1. http://avalon.law.yale.edu/20th_century/pacific.asp
2. http://avalon.law.yale.edu/20th_century/hague072.asp
3. http://avalon.law.yale.edu/20th_century/hague03.asp
4. http://avalon.law.yale.edu/20th_century/hague04.asp
5. http://avalon.law.yale.edu/20th_century/hague05.asp
6. http://avalon.law.yale.edu/20th_century/hague06.asp
7. http://avalon.law.yale.edu/20th_century/hague07.asp
8. http://avalon.law.yale.edu/20th_century/hague08.asp
9. http://avalon.law.yale.edu/20th_century/hague09.asp
10. http://avalon.law.yale.edu/20th_century/hague10.asp
11. http://avalon.law.yale.edu/20th_century/hague11.asp

12. Note that Convention XII was never enacted

13. http://avalon.law.yale.edu/20th_century/hague13.asp

14. <http://www.icrc.org/IHL.NSF/FULL/245?OpenDocument>

S.S. Lotus (Fr. v. Turk.), 1927 P.C.I.J. (ser. A) No. 10 (Sept. 7). http://www.worldcourts.com/pcij/english/decisions/1927.09.07_lotus.htm

The Convention for the Protection of Cultural Property (May 14, 1954); First and Second Additional Protocols (May 14, 1954 and March 26, 1999, respectively). The first deals with the export of cultural property from states occupied in a time of war, while the second, more recent, deals with significant works of art and monuments of particular value to humanity during periods of non-international armed conflicts (NIAC), such as the Buddha's of Bamiyan near to the Hazarajat region of central Afghanistan, destroyed by the Taliban

The Geneva Conventions (1949) and their additional protocols I (opened for signature Dec. 12, 1977) II (June 8, 1977), and Protocol III (December 8, 2005) relating to the adoption of an Additional Distinctive Emblem

Protocol for the Prohibition of the Use of Asphyxiating, Poisonous or Other Gases and Warfare (June 17, 1925)

Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological

APPENDIX C – LEGAL DOCUMENTATION

(Biological) and Toxin Weapons and on their Destruction (April 10, 1972, this Convention, also referred to as the BWC, largely superseded and replaced the earlier, June 17, 1925, Geneva Protocol to The Hague Convention, concerning the use of Chemical and Biological agents in warfare)

The International Covenant on Civil and Political Rights (ICCPR, 1976)

The Convention on of Military or Any Other Hostile Use of Environmental Modification Techniques (December 10, 1976)

The Convention on the Rights of the Child (November 20, 1989) and the Optional Protocol to the convention of the Rights of the Child (May 25, 2000), These two documents relate to children in warfare and the use of child soldiers)

The Convention on the Prohibition of the Use, Stockpiling, Production, and Transfer of Anti-Personnel Mines and on their Destruction (September 18, 1997)

The Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects (October 10, 1980. Also referred to as the CCWC, including Protocols I-IV, covering non-detectable fragments, mines boob traps and other devices (May 3, 1996), incendiary weapons, Blinding Laser Weapons (October 13, 1995)

Amendment to the Convention on Prohibitions and Restrictions on the Use of Certain Conventional Weapons Deemed to Be Excessively Injurious or to Have Indiscriminate Effects (December 21, 2001, with Protocols I, II and III) Protocol expanding the CCWC (December 21, 2003. Protocols I, II, and III during NIAC)

Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (January 13, 1993. Also referred to as the CWC)

The Rome Statute of the International Criminal Court (July 17, 1998. Sometimes referred to as the “Rome Treaty”)

The Convention on Cluster Munitions (May 30, 2008)

Charter of the United Nations; June 26, 1945 (notably Articles 2(4), 39, 42 and, 51 and its attendant subsections), 111 Articles

International Committee of the Red Cross, *Interpretive Guidance on the Notion of Direct Participation in Hostilities Under International Humanitarian Law* (2009)

The Congressional, Authorization for Use of Military Force (2001)

United States. September 2002. *The national security strategy of the United States of America*. [Washington]: President of the U.S.

APPENDIX C – LEGAL DOCUMENTATION

The 2002 war resolution (initially intended for Saddam Hussein and the invasion of Iraq)

Executive Order 12333 (Plus previous and subsequent renditions)

Title 18 USC §1119 Executive Order: Further Amendments to Executive Order 12333, United States Intelligence Activities

Covert Action Statute (CAS), 50 U.S.C. §413b

Deputy Secretary of Defense. 2012. *Defense Support of Civil Authorities (DSCA)*. DoD Directive 3500.1. Washington, DC: Deputy Secretary of Defense, September 21. <http://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodd/302518p.pdf>

The Prosecutor v Duško Tadić, Case No.: IT-94-1-A

Hamdi v. Rumsfeld 542 U.S. 507 (2004),

Hamdan v. Rumsfeld, 548 U.S. 557, 558, (2006). These last two sources, indirectly related, serve as the underlying foundation for various legal positions as they relate to the handling of prisoners and their rights. Congressional testimony and other official references complete the sources consulted for establishing a sound working legal framework. This important judicial decision clarified that the war against terrorism could not be categorized as “international” since there were not

state-sponsored belligerents on either side of the conflict.

Case Concerning Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v. United States of America); *Merits*, International Court of Justice (ICJ), 27 June 1986, available at: <http://www.refworld.org/docid/4023a44d2.html> [accessed 9 December 2016]

United States Diplomatic and Consular Staff in Tehran, Judgment, *I. C. J. Reports* (1980)

Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda), Judgment, *I.C.J. Reports* (2005)

The Lieber Code, General order 100. The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies, (Washington, D.C.: Government Printing Office, 1899), Series III, Volume 3, pp 148-164.

ICRC Customary Law Database: <http://www.icrc.org/customary-ihl/eng/docs/home>

Sanremo Handbook on Rules of Engagement - International Institute www.iihl.org/wp-content/uploads/2015/12/ROE-HANDBOOK-ENGLISH.pdf

Handbook on International Rules Governing Military Operations: <https://www.icrc.org/eng/assets/files/publications/icrc-002-0431.pdf>

APPENDIX C – LEGAL DOCUMENTATION

Operational Law Handbook, 2015
https://www.loc.gov/rr/frd/Military_Law/pdf/OLH_2015_Ch5.pdf

ICRC Interpretive Guidance on the Notion of Direct Participation in Hostilities: (December 21, 2010) pp. 41-69 “hostile intent”

<http://www.icrc.org/eng/resources/documents/publication/p0990.htm>

Acceptance of Compulsory Jurisdiction of International Court of Justice, (United States) August 2, 1946. Senate Resolution 196-Seventy-Ninth Congress

Oil Platforms (*Islamic Republic of Iran v. United States of America*), Judgment, I. C. J. Reports 2003, p. 161

ICISS. *The Responsibility to Protect: Report of the International Commission on Intervention and State Sovereignty*. Ottawa: International Development and Research Centre (IDRC), 2001

APPENDIX D

TREATIES, ACTS & CONVENTIONS AGAINST TERRORISM

The following, non-exhaustive, list of international and domestic treaties, Acts, and Conventions were designed to address the growing problem of international terrorism: As can be seen most States have developed some sort of domestic legislation and/or are also adherents to international treaty obligations. These documents have been examined in part or in whole as applicable for the purposes of the current research.

International & Regional Legislation -

Convention on Offences and Certain Other Acts Committed On Board Aircraft (aka, The Tokyo Convention, 1963) This was considered as the first international treaty against terrorism.

Convention for the Suppression of Unlawful Seizure of Aircraft 860 U.N.T.S. 105 (aka, The Hague Convention, 1970)

Organization of American States Convention to Prevent and Punish Acts of Terrorism Taking the Form of Crimes Against Persons and Related Extortion that are of International Significance (1971)

Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation (1971)

Convention on the Prevention and Punishment of Crimes Against

Internationally Protected Persons (1973)

European Convention on the Suppression of Terrorism (1977, and later Protocol of 2003)

International Convention against the Taking of Hostages (1979)

Protocol for the Suppression of Unlawful Acts of Violence at Airports Serving International Civil Aviation, supplementary to the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation (1988)

Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (1988)

Convention on the Marking of Plastic Explosives for the Purpose of Detection (1991)

International Convention for the Suppression of Terrorist Bombings (1997)

The Convention for the Suppression of Terrorist Bombing (1997)

Arab Convention on the Suppression of Terrorism (Cairo, 1998)

The Convention for the Suppression of the Financing of Terrorism (1999)

Organization of African Union Convention on the Prevention and Combating of Terrorism (1999., and the 2004 Protocol)

Convention of the Organization of the Islamic Conference on

APPENDIX D

TREATIES, ACTS & CONVENTIONS AGAINST TERRORISM

Combating International Terrorism
(Ouagadougou, 1999)

Treaty on Cooperation among States
Members of the Commonwealth of
Independent States in Combating
Terrorism (Minsk, 1999)

Inter-American Convention Against
Terrorism AG/RES. 1840 (XXXII-
O/02., 2002)

Protocol to the Convention for the
Suppression of Unlawful Acts
against the Safety of Maritime
Navigation (2005)

International Convention for the
Suppression of Acts of Nuclear
Terrorism (2005)

Council of Europe Convention on the
Prevention of Terrorism (2005)

The ASEAN Convention On Counter
Terrorism (Cebu, Philippines, 2007)

Convention on the Suppression of
Unlawful Acts Relating to
International Civil Aviation (2010)

Protocol Supplementary to the
Convention for the Suppression of
Unlawful Seizure of Aircraft (2010)

Protocol to Amend the Convention
on Offences and Certain Acts
Committed on Board Aircraft (2014)

Domestic Level Legislation -

South African Terrorism Act No 83
(1967)

Antiterrorism Act, Pub. L. No. 102-
572, §1003, 106 Stat. 4522. (1991,
codified as
amended at 18 U.S.C. §§ 2331-38
(2006)).

Antiterrorism and Effective Death
Penalty Act Pub. L. No. 104-132,
110 Stat. 1214 (1996, codified as
amended in scattered sections of 18,
21, 28, 42 U.S.C.).

The Terrorism Act, of the United
Kingdom, (2000)

The US Patriot Act (2001, plus
extensions and sunset provisions)

The USA Freedom Act, (H.R. 2048,
Pub. L. 114–23., 2015)

The Authorization for the Use of
Military Force (AUMF 2001/2002)

The Anti-Terrorism Act of Canada,
Bill C-36 (2001)

The Anti-terrorism, Crime and
Security Act (2001) U.K.

Belgium Anti-Terrorism Act (2003)

The Prevention of Terrorism Act
(2005) U.K.

Australian Anti-Terrorism Act
(2005)

The Terrorism Act (2006) U.K.

The Counter-Terrorism Act (2008)
U.K.

The Terrorist Asset-Freezing
(Temporary Provisions) Act (2010)

APPENDIX D

TREATIES, ACTS & CONVENTIONS AGAINST TERRORISM

The Protection of Freedoms Act
(2012) Limited, reduced and thus,
restricted many of the previous anti-
terrorism provisions

Canada, Bill S-7, the Combating
Terrorism Act, (2012)

Canada, Bill C-51, the Anti-
Terrorism Act, (2015)

China, Anti-terrorism Act (2015)

APPENDIX E – GOOGLE EARTH INTELLIGENCE



Figure 1: The Federally Administered Territories of Pakistan - Overview

APPENDIX E – GOOGLE EARTH INTELLIGENCE

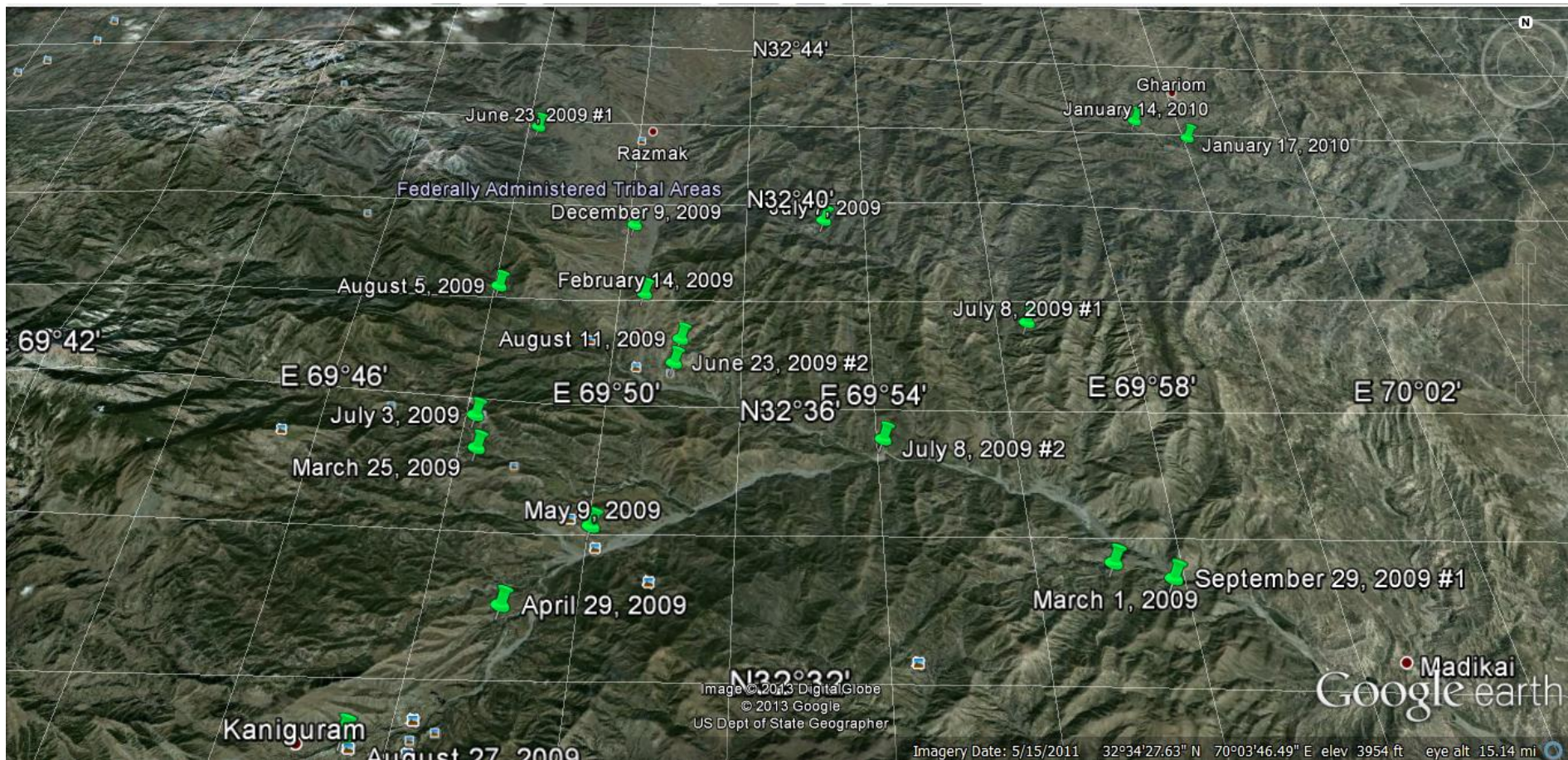


Figure 2: The Federally Administered Territories of Pakistan- Area of Drone Strikes 2009 – 2010

Green pins mark various drone strikes.

APPENDIX E – GOOGLE EARTH INTELLIGENCE



Figure 3: Yemen - Overview

APPENDIX E – GOOGLE EARTH INTELLIGENCE

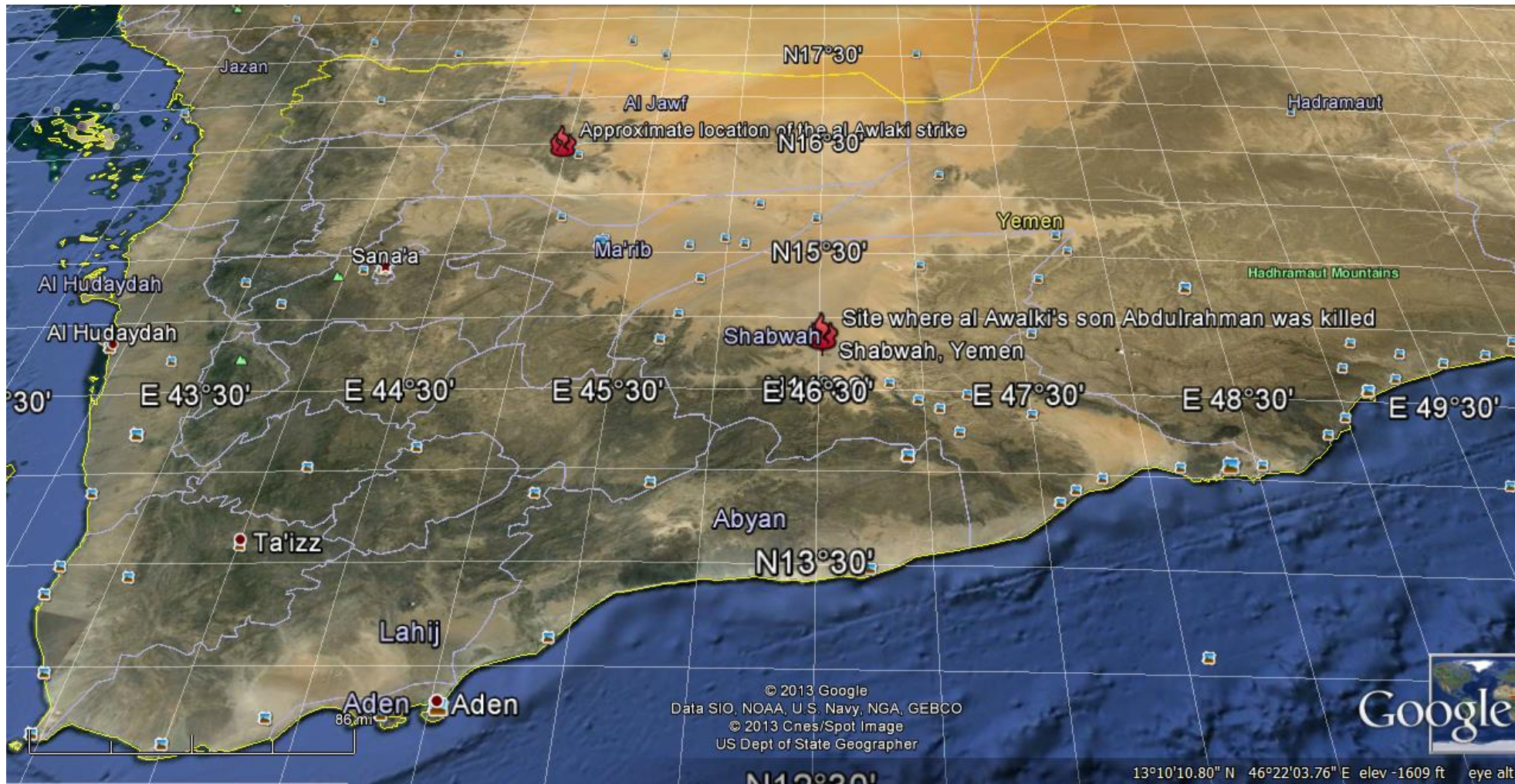


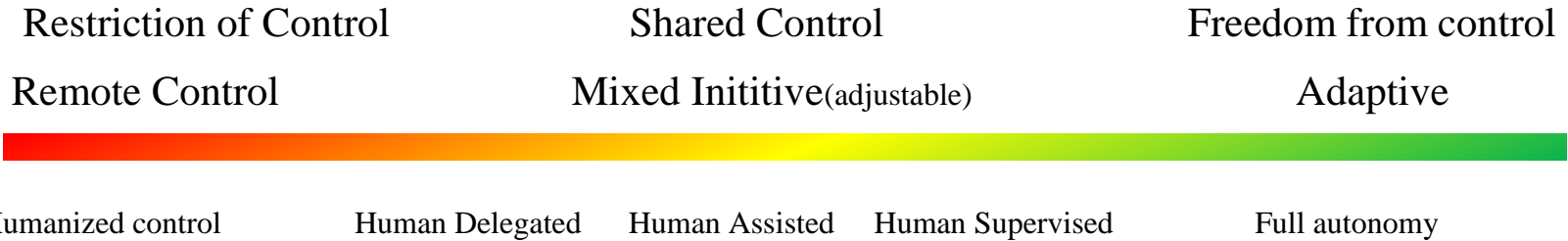
Figure 4: US Drone strikes which killed al-Awlaki (Sept 30, 2011) and his son (Oct 14, 2011).

APPENDIX F – COMPSIM TECHNOLOGY COMPARISON CHART

Technology Comparison					
	<u>Neural Nets</u>	<u>Fuzzy Logic</u>	<u>Bayesian Belief Nets</u>	<u>AI - Forward / Reverse Chaining</u>	<u>KEEL</u>
General Concept	Pattern Matching	Geometric Fuzzification / Defuzzification	Probabilities of Probability	Trial and Error	Adaptive Functional Relationships between Data Items
Source of Understanding	Patterns	Human Designer	Human Designer / Statistics	Human Designer	Human Designer
Pattern Training Required	Major Problem	No	No	No	No
Explainable Decisions	No	Difficult	Difficult	Somewhat	Fully Explainable
Small Memory Footprint	?	?	?	No	Best
Easily Extensible	Must start over with retraining	Somewhat	Statistics may have to be regenerated	Possibly	Yes
Performance	Determined by Application	Determined by Application	Determined by Application	Worst	Determined by Application
Suitable for Control	Yes	Yes	Probably Not	Probably Not	Yes
Interactive Development	No	No	Somewhat	Partial	Yes
Portable Design (device, software, web)	Probably Not	Probably Not	Probably Not	Probably Not	Yes (one design, many output formats)
Weaknesses	Pattern Training / Surprise Information	Validated Reasoning	Statistics may not be available for non-linear systems; Difficult to explain	Fragile / Brittle - Hard to maintain	Remain to be evaluated in testing

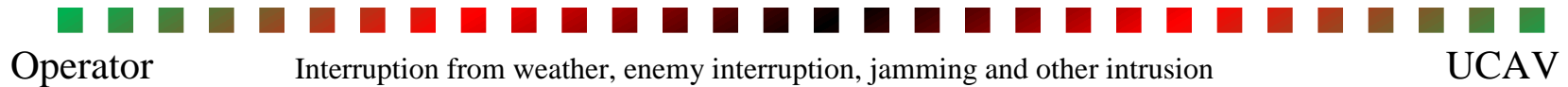
APPENDIX G – AUTONOMY MATRIX & BANDWIDTH MODEL

Autonomy matrix†



HA: operator responsible for take-off and landings little else. HD: Operator only provides instructions and coordinates. HS: Operator merely serves in a supervisory and oversight capacity. MI: Human provides the mission program, but no oversight required. Adaptive is the ability to actually learn and is thus, beyond the function of ‘mere’ autonomy.

BANDWIDTH DISRUPTION MODEL††

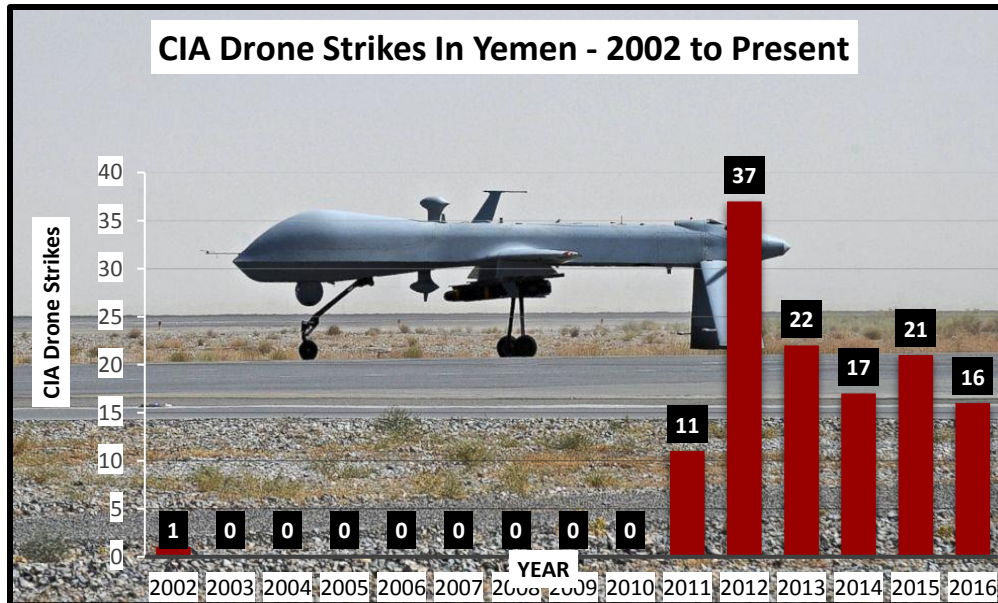
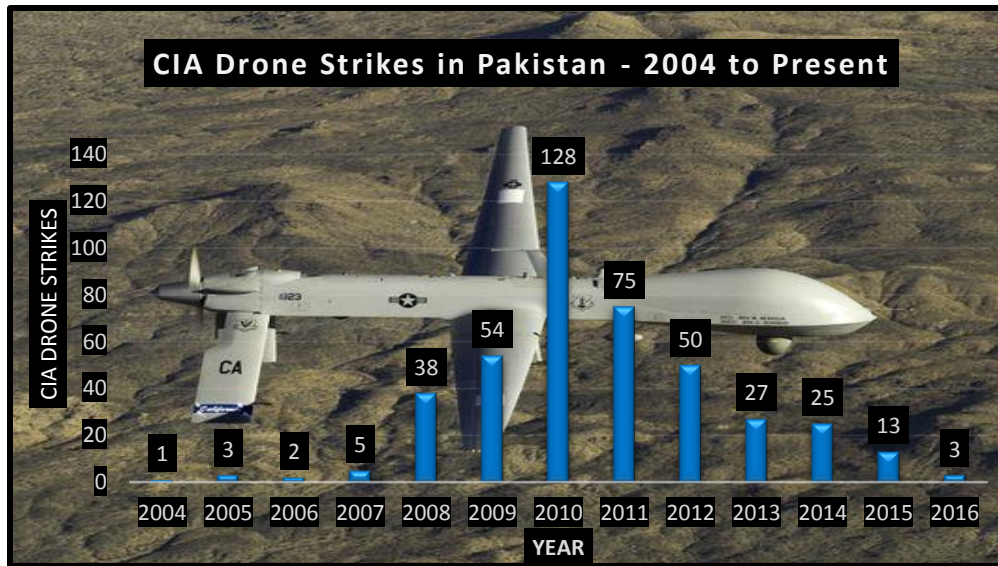


Communications are reduced or cutoff completely due to intervening forces. This is a strong argument for autonomy such as proposed by KEEL® technology

†Based upon the model outlined in: Singer, Peter W. *Wired for War: The Robotics Revolution and Conflict in the 21st Century*. New York: Penguin Group (USA) Inc., 2009.

††Ibid.

APPENDIX H – CIA DRONE STRIKES PAKISTAN & YEMEN



†The information provided above was drawn from statistics provided courtesy of the Bureau of Investigative Journalism.

APPENDIX I - SCALE OF INTENT: Basic Model

Levels of Threat, Intent and Imminence

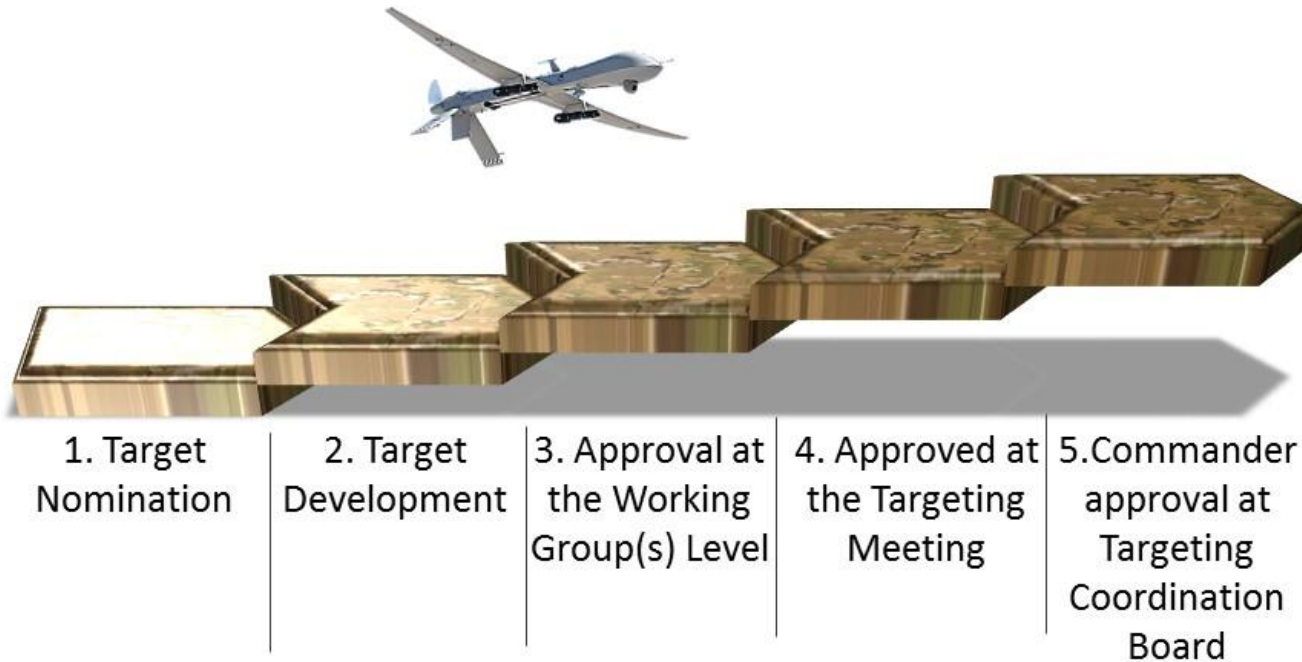
1. As the intent increases/decreases, so does the threat and level of imminence.
2. As the level of threat increases/decreases, so too does the inherent right to self-defense.



A vast array of actions may serve to prompt state self-defense: Cyber-attacks, counterfeiting a state's currency cross border raiding, harboring or supplying logistical support to enemy and insurgent warriors, interfering with national interests or vital resources. Today' interpretations of what defines imminence and intent are very broad and wide ranging.

APPENDIX J – TARGET SELECTION PROCESS & THE “KILL CHAIN”

TARGET SELECTION PROCESS - Battlefield



APPENDIX K – TARGET SELECTION PROCESS & THE “KILL CHAIN”

TARGET SELECTION – Outside Designated Warzones According to Secret Documents



1. TF-48-4



2. TF-9-22



3. GCC



4. JCS



5. SECDEF



6. NSC
PDC-PC



7. POTUS



Key: TF-48-4: JSOC Task Force ; T-9-22: JSOC Task Force (JSOC: Joint Special Operations Command); GCC: Geographic Combatant Command (CENTCOM/AFRICOM); SEDEF: Secretary of Defense NSC PDC/PC National Security Council Principals Deputy Committee/Principals Committee (13) Members; POTUS: President of the United States

Appendix L – CREECH AFB DRONE OPS



Figure 6 Note the Predator drone clearly visible in the background

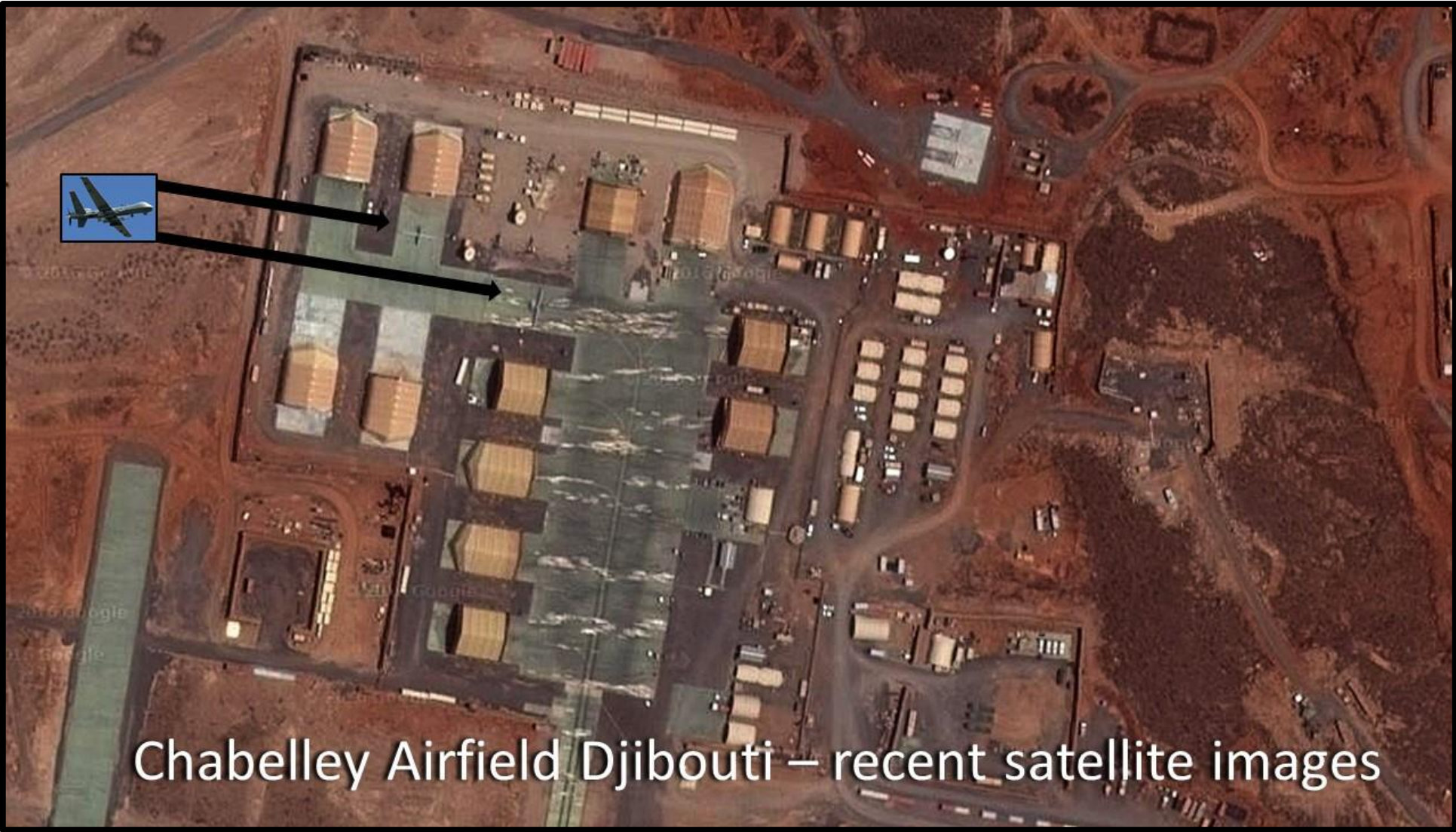
APPENDIX M – RAMSTEIN SATELLITE RELAY STATION



APPENDIX N – CHABELLEY DRONE BASE DJIBOUTI

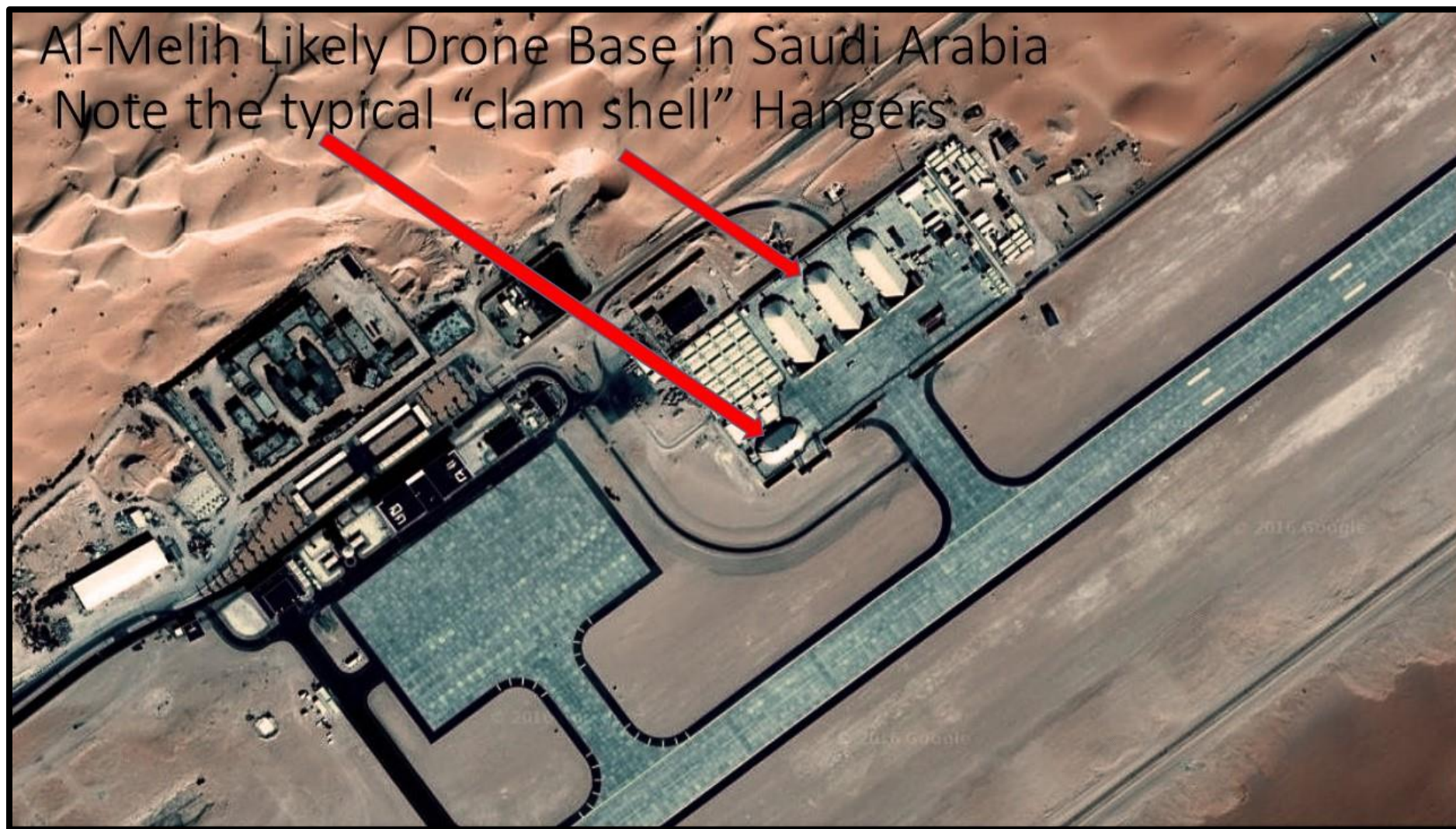


APPENDIX N – CHABELLEY DRONE BASE DJIBOUTI

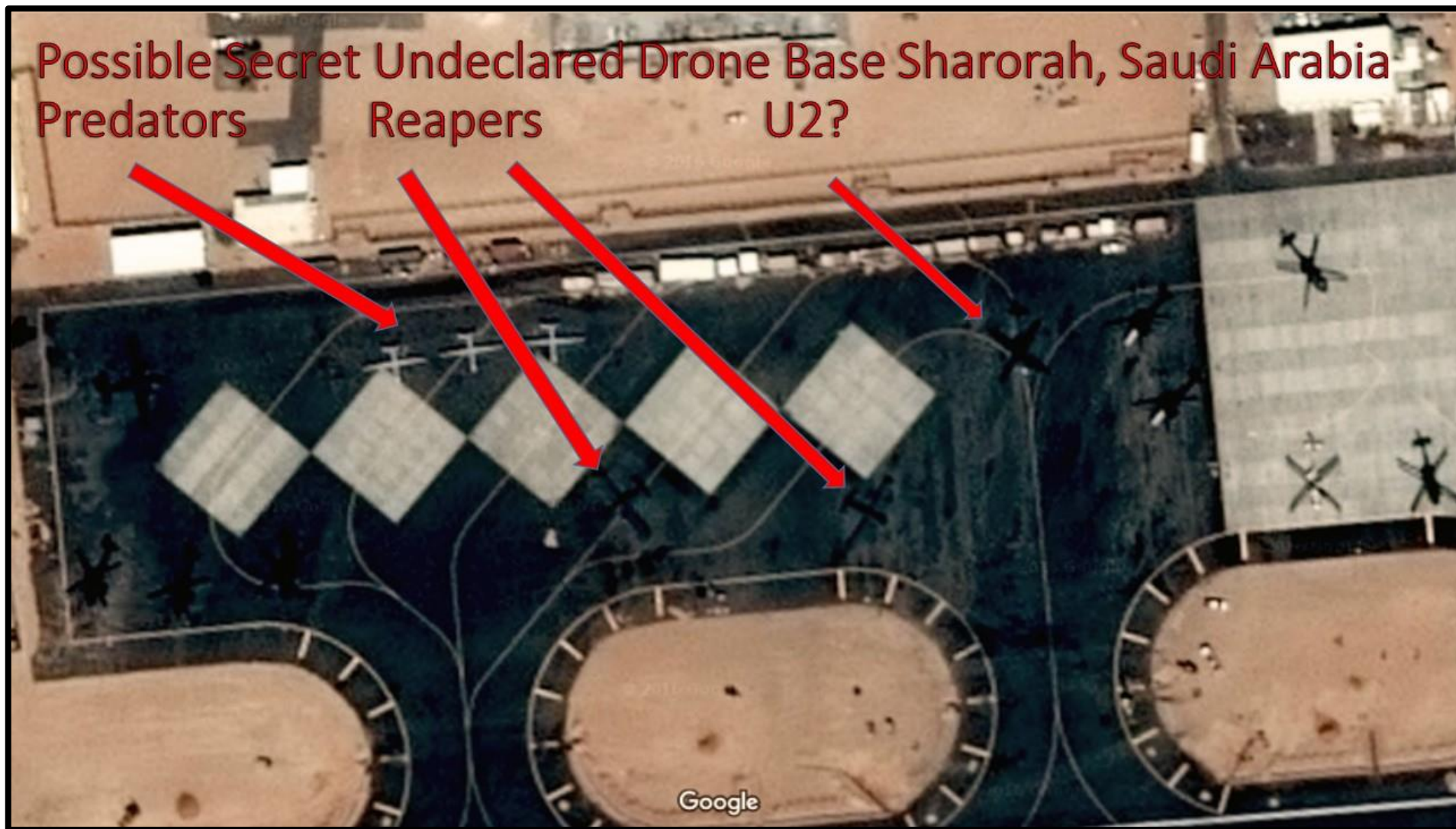


Chabelley Airfield Djibouti – recent satellite images

APPENDIX O – LIKELY DRONE BASE IN SAUDI ARABIA

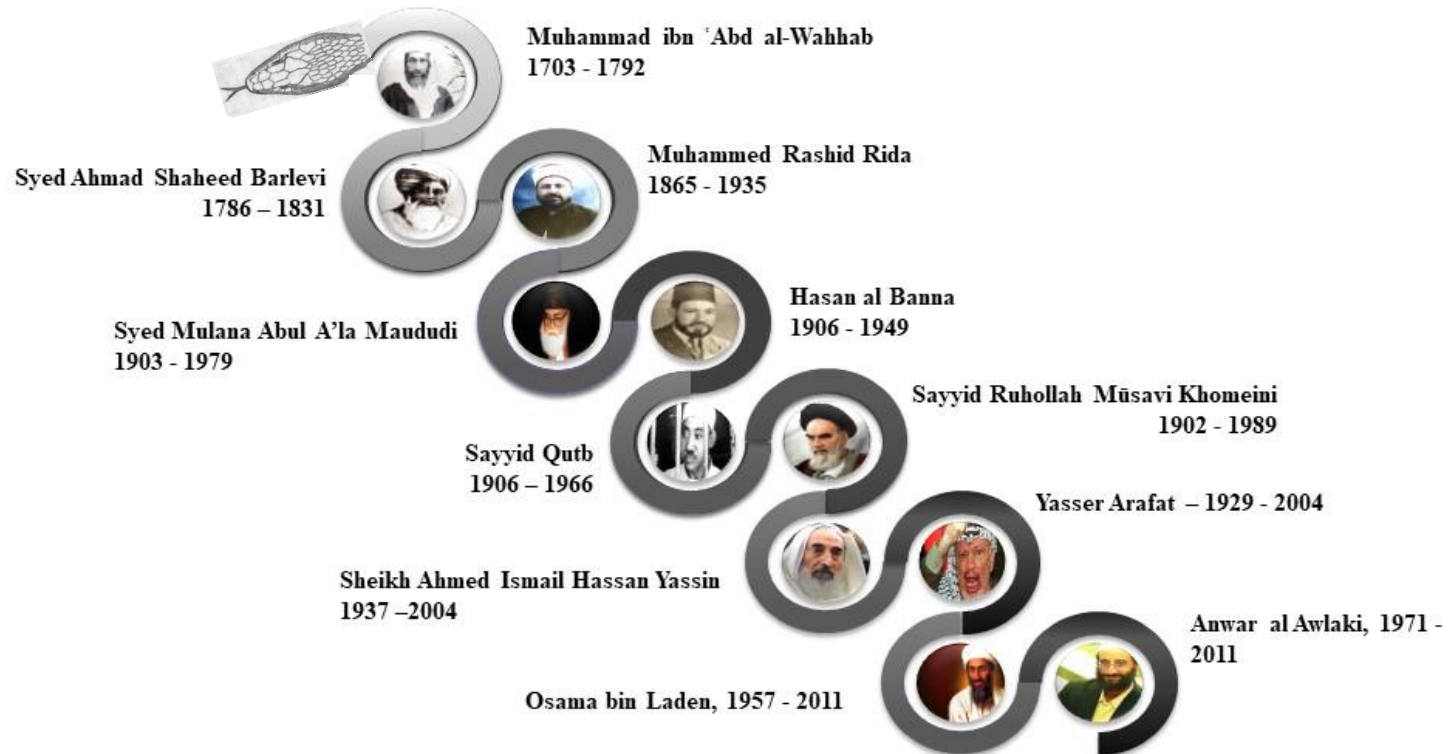


APPENDIX O – LIKELY DRONE BASE IN SAUDI ARABIA



APPENDIX P – AN EVOLUTIONARY TIMELINE TO TERROR

An Evolutionary Timeline To Terror



Historical Influences – Theoterrorist Ideology

Endnotes:

¹ This statement by General McChrystal may not be immediately comprehensible to those with limited military

strategic knowledge. The point he is making here relates to the organization of combat operations, which is divided from top to bottom as, Strategic, Operational and Tactical. Starting at the top there is the strategic approach which defines the conduct and general principles involved in a war or campaign. In contrast, the tactical approach focuses on the use of troops and equipment in the immediate battle-space. The point he appears to be making here is that drones, or any other weapon, or formation, cannot be used to strategically conduct a campaign, as is largely the case under the current Obama administration, it should be part of a multi-faceted approach which includes an organizational array of various instruments, and approaches besides just one specific technology.

² Saul, Ben. *Defining Terrorism in International Law*. Oxford: Oxford University Press, 2008.

³ For a more detailed discussion and clarification of these various resolutions see: *UN Documents for Terrorism: Security Council Resolutions*. UN Security Council Report, New York: United Nations Security Council, 2018; Stroligo, Klaudijo. *Guidelines Regarding the Necessary Steps to be Taken for Effective Implementation of the UN Security Council Resolutions on Terrorism*. MOLI-UA2, Ljubljana: The Council of Europe, 2007; and Umarov, K. (2018). *Fact Sheet on the Security Council Committee Pursuant to Resolutions*. New York: United Nations Security Council

⁴ Refer for instance to: http://legal.un.org/icc/statute/99_corr/3.htm

⁵ While these terms and even extended versions of them have existed for some time in police, security management, and the intelligence field, I have developed my own variation in this respect.

⁶ Taylor, Maxwell. *The Fanatics: A behavioural approach to political violence*. London: Brassey's, 1991: p. 193.

⁷ These were the words uttered by King Henri IV of France in 1598 when Grotius, at age 15, visited the court as part of a Dutch delegation. The exact phrase expressed by the king was “Behold the miracle of Holland.” Indeed, that same year the gifted Grotius obtained his Doctor of Law degree while studying in Orleans.

⁸ Transnational armed conflict is a precept that has become of increasing importance following the attacks of September 11, 2001. According to such a view, the conflict with groups of international terrorists, such as al-Qaeda and IS, should be regulated by international humanitarian law, rather than international human rights law. This view sees transnational armed conflict as a new type of conflict; one which falls into a legal vacuum between international armed conflict and non-international armed conflict (NIAC) and thus, implying that the current laws relating to the international use of force are inadequate. Increasing commentary on this perspective is now available. See for instance: <https://hhi.harvard.edu/publications/transnational-armed-groups-and-international-humanitarian-law>, (link broken); alternative link: available here: <https://archive-ouverte.unige.ch/unige:6418>. See also Corn, Geoffrey S., et al. *The War on Terror and Laws of War*. 2nd. New York: Oxford University Press, 2015: p. 71-73.

⁹ Scahill, Jeremy. *The Assassination Complex*. New York: Simon and Schuster, 2016: p. 2

¹⁰ While Taylor does not specifically address the asymmetric relationship between terrorism and UCAVs his thoughts helped to elucidate this possibly interactive relationship. Taylor, Maxwell. *The Fanatics: A behavioural approach to political violence*. London: Brassey's, 1991: p.190.

¹¹ Hammes, Thomas X. *The Sling and the Stone*. St. Paul, Minnesota: Zenith Press, 2004: p. xiii.

¹² Clausewitz, Carl von. *The Essential Clausewitz*. Edited by Joseph I. Greene. Mineola: Dover Publications Inc., 2003: p. 16.

¹³ Term developed by Professor Paul Cliteur. Refer to: Cliteur, Paul, “The Challenge of Theoterrorism” in: *The New English Review*, 30 May 2013.

¹⁴ Sageman, Marc. *Understanding Terror Networks*. Philadelphia: University of Pennsylvania Press, 2004: p.80.

¹⁵ Joseph S. Nye, Jr., and David A Welch. *Understanding Global Conflict and Cooperation*. 8th. Boston: Longman, 2011. Nye developed this term back in 2003 to counter the misconceived perception that conflict resolution could be

carried out exclusively using soft power instruments, such as diplomacy. In this regard, he follows and elaborates upon the line of thought originally developed by Samuel Huntington.

¹⁶ See among others: "Bush, the Truth and Iraq's Weapons of Mass Destruction: President Bush did not lie, but he and his administration are guilty of numerous deliberate deceptions." *www.wsj.com*. February 15, 2015. Passim, <http://www.wsj.com/articles/bush-the-truth-and-iraqs-weapons-of-mass-destruction-letters-to-the-editor-1423868736> (accessed January 3, 2016); "Justifications for War: WMDs and Other Issues." *www.globalpolicy.org* (multiple useful sources). January 3, 2016. <https://www.globalpolicy.org/political-issues-in-iraq/justifications-for-war-wmds-and-other-issues.html> (accessed January 3, 2016); Lacey, Jim. "Bin Laden struck first, but Saddam was at least as big a terror threat." *www.nationalreview.com*. September 14, 2011. <http://www.nationalreview.com/article/277115/saddam-what-we-now-know-jim-lacey> (accessed January 3, 2016); Rosen, Armin. "Here's the full version of the CIA's 2002 intelligence assessment on WMD in Iraq." <http://uk.businessinsider.com>. March 20, 2015. <http://uk.businessinsider.com/heres-the-full-version-of-the-cias-2002-intelligence-assessment-on-wmd-in-iraq-2015-3?r=US&IR=T> (accessed January 3, 2016); Silberman, Laurence H. "The Dangerous Lie That 'Bush Lied'." *www.wsj.com*. February 8, 2015. <http://www.wsj.com/articles/laurence-h-silberman-the-dangerous-lie-that-bush-lied-1423437950> (accessed January 3, 2016); The National Security Archive. "Iraq and Weapons of Mass Destruction: National Security Archive Electronic Briefing Book No. 80." *The National Security Archive*. Edited by Jeffrey Richelson. February 11, 2004. <http://nsarchive.gwu.edu/NSAEBB/NSAEBB80/> (accessed January 3, 2016).

¹⁷ Parallel reflection echoed by Taylor in Taylor, Maxwell. *The Fanatics: A behavioural approach to political violence*. London: Brassey's, 1991; p. 1.

¹⁸ Dill, Janina. *Legitimate Targets? Social construction, international law and US bombing*. Cambridge: Cambridge University Press, 2015: 290.

¹⁹ See: Tuomi, I. (2002). "The Lives and Death of Moore's Law". *First Monday*. 7 (11). doi:10.5210/fm.v7i11.1000. Generally, see also: Cringely, Robert X. 2001. "Be Absolute for Death: Life after Moore's Law." *Communications of The ACM* 44, no. 3: 94-95. *Academic Search Premier*, EBSCOhost (accessed November 23, 2016).

²⁰ Zenko, Micha. *Between Threats and War: U.S. discreet military operations in the Post-Cold War World*. Stanford: Stanford University Press, 2010: p.88.

²¹ The albatross, the bird of misfortune, was made famous in the epic poem, *The Rime of the Ancient Mariner*, by Samuel Taylor Coleridge in 1834. One may ask Why the unfortunate albatross has been saddled with such a negative view. The fact is that the albatross is considered, at its most basic form as a symbol of divinely inspired innocence and creation. It is a symbol of good luck by sea-farers as it follows their vessel to sea. However, in the Coleridge poem, the sailor who killed the bird with his crossbow, visited misfortune upon his comrades. Therefore, the albatross (which now embodies the concept of sin) carried bad luck. (*Ah! well a-day! what evil looks Had I from old and young! Instead of the cross, the Albatross About my neck was hung*). Today, the expression to wear or have an albatross hung around one's neck carries the meaning of being cursed and bearing a sense of self-inflicted psychological oppression.

²² For further information on Abraham Karem see: Potts, Andy. "The Drone Father." *economist.com*. Dec 1, 2012. <https://www.economist.com/news/technology-quarterly/21567205-abe-karem-created-robotic-plane-transformed-way-modern-warfare> (accessed July 26, 2017).

²³ National Commission on Terrorist Attacks upon the United States, Thomas H. Kean, and Lee Hamilton. *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks Upon the United States*. [Washington, D.C.]: National Commission on Terrorist Attacks upon the United States, 2004; p.211

²⁴ Hammes, Thomas X. *The Sling and the Stone*. St. Paul, Minnesota: Zenith Press, 2004: p. 201.

²⁵ LaSorsa, Joseph M. "An Intelligent Solution." *Security Management*, January 2017: p.34.

²⁶ Byrne, James, and Gary Marx. "Technological Innovations in Crime Prevention and Policing. A Review of the Research on Implementation and Impact." *Cahiers Politicestudies* 3, no. 20 (2011): 17-40; Greenfield, Patricia. "Is Technology Producing A Decline In Critical Thinking And Analysis?" *Science News*, 2009: n.p.; Kurweil, Ray. *The Singularity is Near*. New York: Penguin Press, 2006; Santoni de Sio F., Faulmüller N. and Vincent N.A (2014), How cognitive enhancement can change our duties. *Front. Syst. Neurosci.* 8:131

²⁷ Refer to the following for instance: Coeckelbergh, M. 2009. 'Personal Robots, Appearance, and Human Good: A Methodological Reflection on Roboethics' in: *International Journal of Social Robotics* 1(3): 217-221; Passim; Coeckelbergh, Mark. 2010. 'You, Robot: On the Linguistic Construction of Artificial Others' in: *AI & Society* (online 10 August 2010); Wynsberghe, Aimee van. *Designing Robots with Care: Creating an Ethical Framework for the Future Design and Implementation of Care Robots*. Doctoral Dissertation, Enschede: Twente University, 2012. More generally refer to: <http://ethicsandtechnology.eu/spotlight/the-ethics-of-robots/>; Verbeek, Peter-Paul. "Persuasive Technology and Moral Responsibility: Toward an ethical framework for persuasive technologies." *Persuasive 2006*, 2006: 1-15. Also generally for issues on morality refer to: Gross, Micheal L. *Moral Dilemmas of Modern War*. 1st. Cambridge: Cambridge University Press, 2010.

²⁸ Wynsberghe, Aimee van. *Designing Robots with Care: Creating an Ethical Framework for the Future Design and Implementation of Care Robots*. Doctoral Dissertation, Enschede: Twente University, 2012, p. 245.

²⁹ Refer for instance to: Udeanu, Gheorghe, Alexandra Dobrescu, and Mihaela Oltean. *Unmanned Aerial Vehicles in Military Operations*. Scientific Research, Sibiu, Romania: Nicolae Balescu Land Forces Academy, 2016.

³⁰ N.A. *U.S. Air Force Fact Sheet: MQ-1B Predator*. Fact Sheet, Langley: Air Combat Command, U.S. Air Force, N.D; N.A. *U.S. Air Force Fact Sheet: MQ-9 Reaper*. Fact Sheet, Langley: Air Combat Command, U.S. Air Force, N.D; N.A. *U.S. Air Force Fact Sheet: RQ-4 Global Hawk*. Fact Sheet, Langley: Air Combat Command, U.S. Air Force, N.D.

³¹ Richelson, Jeffery T. *The US Intelligence Community*. Boulder: Westview Press, 2012.p. 185

³² Dill, Janina. *Legitimate Targets? Social construction, international law and US bombing*. Cambridge: Cambridge University Press, 2015: p.227.

³³ Patterson, Dennis. "Theories of Law: Natural Law, Legal Positivism, The Morality of Law Dworkin's "Third Theory of Law" Legal Realism and Critical Legal Studies." *www.jus.unitn.it*. 2004-2005. www.jus.unitn.it/users/patterson/.../analyticjurissupplemental.pdf (accessed May 24, 2018): p.13.

³⁴ Brunstetter, Daniel, and Megan Braun. "The Implications of Drones on the Just War Tradition." *Ethics & International Affairs* 25 (2011): p. 345 -346.

³⁵ The concept of the "magic bullet," or "*Zauberkegel*" also referred to variously as the silver bullet, was developed by the Nobel Prize laureate (1908), Paul Ehrlich, during a speech in 1906. He advanced the theory that it was possible to eradicate microbes within the body, without harming the body itself. This led to his development of the first medication available for the treatment of syphilis (Salvarsan). Silver bullet is also known in popular mythology as the antidote for eliminating werewolves. The reference to silver bullets as a solution for complex problems appears in writing of the 17th century. The mystical properties of silver can be traced back as far as early Graeco-Roman civilization.

³⁶ Chamayou, Grégoire. *A Theory of the Drone*. New York: The New Press, 2013; p. 191 To see the original use of this concept refer to: Friedman, Benjamin H. "Etzioni and the Great Drone Debate." *The National Interest*. October 5, 2011. <http://nationalinterest.org/blog/the-skeptics/etzioni-the-great-drone-debate-5982> (accessed May 22, 2016).

³⁷ Betz, Eric. "Drone Wars." Edited by Timothy E. Kidwell. *Drone 360* (Kalmbach Publishing) 1, no. 1 (2016): p. 56

³⁸ Carr, Caleb. *The Lessons of Terror: A history of warfare against civilians*. New York: Random House, 2003: p. 17.

³⁹ Emmerson, Ben. *Promotion and protection of human rights and fundamental freedoms while countering terrorism*. 3rd Annual Report, New York: United Nations, 2013.

⁴⁰ Sterio, Milena. "The United States' Use of Drones in the War on Terror: The (il)legality of targeted killings under international law." *Case Western Reserve Journal of International Law* 45 (2012): p.200

⁴¹ While such criteria appear to most Westerners as being based upon spurious claims at best, the Islamists consider them entirely justified according to their belief system and values. See: Cliteur, Paul, and Herrenberg, Tom, eds., *The Fall and Rise of Blasphemy Law*, with a foreword by Flemming Rose, Leiden University Press, Leiden 2016.

⁴² 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. Measures taken by Members in the exercise of this right of self-defence shall be immediately reported to the Security Council and shall not in any way affect the authority and responsibility of the Security Council under the present Charter to take at any time such action as it deems necessary in order to maintain or restore international peace and security. Refer to:

<http://www.un.org/en/documents/charter/chapter7.shtml>. See also: Coleman, Stephen. *Military Ethics: An introduction with case studies*. New York: Oxford University Press, 2013; p. 72

⁴³ Byman, Daniel. *Al Qaeda, the Islamic State, and The Global Jihadist Movement: what everyone needs to know*. New York: Oxford University Press, 2015: pp.222-223

⁴⁴ Ross, Brian, James Gordon Meek, and Luiz Martinez. "'Jihadi John' Believed Killed in US Drone Strike, US Officials Say." *abcnews.go.com*. November 12, 2015. <http://abcnews.go.com/International/jihadi-john-believed-killed-us-drone-strike/story?id=35170345> (accessed April 28, 2016). Passim; Telegraph Reporters. "Air strike 'reduced Jihadi John to a greasy spot on the ground'." *www.telegraph.co.uk*. April 17, 2016. <http://www.telegraph.co.uk/news/2016/04/17/air-strike-reduced-jihadi-john-to-a-greasy-spot-on-the-ground/> (accessed November 19, 2016).

⁴⁵ See: <http://abcnews.go.com/GMA/video/mother-james-foley-strike-targeted-jihadi-john-35175287>. This appears to be a case of Stockholm syndrome, whereby the victims identify with their captors.

⁴⁶ Gross, Micheal L. *Moral Dilemmas of Modern War*. 1st. Cambridge: Cambridge University Press, 2010. p. 103

⁴⁷ Neff, Stephen C. *War and the Law of Nations*. Cambridge: Cambridge University Press, 2008. Passim; Thomas, Ward. *The Ethics of Destruction: Norms and force in international relations*. 10th. Ithaca: Cornell University Press, 2001; Baker, Deane-Peter, ed. *Military Ethics*. Sydney: UNSW Press, 2015; Byers, Michael. *War Law: Understanding international law and armed conflict*. New York: Grove Press, 2005; Corn, Geoffrey S., et al. *The War on Terror and Laws of War*. 2nd. New York: Oxford University Press, 2015; Elshtain, Jean Bethke. *Just War Against Terror: The burden of American power in a violent world*. New York: Basic Books, 2008; Gross, Michael L. *Moral Dilemmas of Modern War*. 1st. Cambridge: Cambridge University Press, 2010; Howard, Michael, George J Andreopoulos, and Mark R Schulman. *The Laws of War: Constraints on Warfare in the Western World*. New Haven: Yale University Press, 1997.

⁴⁸ Carr, Caleb. *The Lessons of Terror: A history of warfare against civilians*. New York: Random House, 2003: p. 245.

⁴⁹ Brooks, Rosa. "Take Two Drones and call Me in the Morning." *www.foreignpolicy.com*. September 13, 2012. <http://foreignpolicy.com/2012/09/13/take-two-drones-and-call-me-in-the-morning/> (accessed April 15, 2016).

⁵⁰ Lin, Patrick, George Bekey, and Keith Abney. "Robots in War: Issues of Risk and Ethics." *Ethics and Robotics* (R. Capurro and M. Nagemborg (Eds.), 2009: 49-67.

⁵¹ The OODA loop is the famous concept of "observe, orient, decide and act," paradigm developed by John Boyd. Anderson, Kenneth, and Matthew Waxman. *Law and Ethics for Robot Soldiers*. Policy Review Public Law Research Paper, SSRN, 2012. Refer also to: Keeley, Thomas. *Giving devices the Ability to Exercise Reason*. white paper, _____

Brookfield: Compsim LLC, 2009, 6; Singer, Peter W. *Wired for War: The Robotics Revolution and Conflict in the 21st Century*. New York: Penguin Group (USA) Inc., 2009: 356

⁵² Corn, G. S. et al., 2015. *The War on Terror and Laws of War*. 2nd ed. New York: Oxford University Press. See also: <https://hhi.harvard.edu/publications/transnational-armed-groups-and-international-humanitarian-law>

⁵³ See for instance: Bennoune, Karima. *Your Fatwa Does Not Apply here: Untold stories from the fight against Muslim fundamentalism*. New York: W.W. Norton & Company [2015], 2013; or Glazov, Jamie, *United in Hate: The Left's Romance with Tyranny and Terror*, WND Books, Los Angeles 2009; also, Abdel-Samad, Hamed, *Islamic Fascism*, Prometheus Books, Amherst, New York 2016; and, Roy, O. (2001). *The Failure of Political Islam* (Fifth ed.). (C. Volk, Trans.) Cambridge: Harvard University Press.

⁵⁴ Dill, Janina. *Legitimate Targets? Social construction, international law and US bombing*. Cambridge: Cambridge University Press, 2015: p.309

⁵⁵ Miller, Greg, Ellen Nakashima, and Karen DeYoung. "CIA drone strikes will get pass in counterterrorism 'playbook,' officials say." *The Washington Post*, January 2013.

⁵⁶ David Sterling was the founder of the famed British Special Air Services(SAS) and this motto has been attributed to him.

⁵⁷ Hart, H.L.A., "Positivism and the Separation of Law and Morals", in: *Harvard Law Review*, 71 (1958), also in: H.L.A. Hart, *Essays in Jurisprudence and Philosophy*, Clarendon Press, Oxford, 1983, pp. 49-87.

⁵⁸ Koskenniemi, Martti, *From Apologia to Utopia: The Structure of Legal Argument*, Reissue with a new Epilogue, Cambridge University Press, Cambridge 2005 (1989), pp. 562-617.

⁵⁹ Koskenniemi, Ibid., p. 562.

⁶⁰ Koskenniemi, Ibid., p. 562.

⁶¹ Koskenniemi, Ibid., p. 564.

⁶² See: Dworkin, Ronald, "Hard Cases", in: *Taking Rights Seriously*, Harvard University Press, Cambridge (Mass) 1978, pp. 81-131. His work on interpretation culminated in his main work: Dworkin, Ronald, *Law's Empire*, The Belknap Press of Harvard University Press, Cambridge, Mass., London, England 1986, especially pp. 45-87 on "interpretive concepts".

⁶³ Hart, H.L.A., *The Concept of Law*, Oxford University Press, Oxford 1961.

⁶⁴ Dworkin, Ronald, "The Model of Rules I", in: *Taking Rights Seriously*, Harvard University Press, Cambridge (Mass) 1978, pp. 14-46.

⁶⁵ Dworkin, Ronald, *Is Democracy Possible Here? Principles for a New Political Debate*, Princeton University Press, Princeton and Oxford 2006, p. xi

⁶⁶ Dworkin, Ibid., p. 1.

⁶⁷ Dworkin, Ibid., p. 5.

⁶⁸ Dworkin, Ronald, "The Forum Principle", in: *New York University Law Review*, Vol. 56, 1981, pp. 469-518, p. 471.

⁶⁹ Dworkin, Ibid., p. 471.

⁷⁰ Dworkin, Ronald, "Law as Interpretation", in: *Critical Inquiry*, September 1982, pp. 179-200, p. 179.

⁷¹ Dworkin, "Law as Interpretation", p. 180.

⁷² Dworkin, "Law as Interpretation", p. 181.

⁷³ Dworkin, "Law as Interpretation", p. 182.

⁷⁴ Dworkin, "Law as Interpretation", p. 183.

⁷⁵ Dworkin, "Law as Interpretation", p. 183.

⁷⁶ Dworkin, "Law as Interpretation", p. 191.

⁷⁷ Dworkin, "Law as Interpretation", p. 194.

⁷⁸ Dworkin, Ronald A., "'Natural' Law Revisited", in: *University of Florida Law Review*, Winter 1982, Volume XXXIV, Number 2, pp. 165-188.

⁷⁹ Dworkin, “‘Natural’ Law Revisited”, p. 165. See also: Hart, H.L.A., “Positivism and the Separation of Law and Morals”, in: *Harvard Law Review*, 71 (1958), pp. 593-629.

⁸⁰ A bit of an exaggeration, perhaps, because authors like Lon Fuller (*The Morality of Law*, Revised edition, Yale University Press, New Haven and London 1964), John Finnis (*Natural Law and Natural Rights*, Clarendon Press, Oxford 1980), and Gustave Radbruch (“Five Minutes of Legal Philosophy, in: Feinberg, Joel, & Gross, Hyman, eds., *Philosophy of Law*, Fourth Edition, Wadsworth Publishing Company, Belmont, California 1991, pp. 103-105) all placed themselves into the natural law tradition that also Dworkin endorses with his article.

⁸¹ Dworkin, “‘Natural’ Law Revisited”, p. 165.

⁸² Dworkin, “‘Natural’ Law Revisited”, p. 168.

⁸³ Dworkin, “‘Natural’ Law Revisited”, p. 178.

⁸⁴ Dworkin, “‘Natural’ Law Revisited”, p. 178.

⁸⁵ Dworkin, “‘Natural’ Law Revisited”, p. 183.

⁸⁶ Dworkin, “‘Natural’ Law Revisited”, p. 187.

⁸⁷ Koskenniemi, *Ibid.*, p. 564.

⁸⁸ Dworkin, Ronald, *Law’s Empire*, The Belknap Press of Harvard University Press, Cambridge, Mass., London, England 1986.

⁸⁹ Dworkin, Ronald, “Introduction: The Moral Reading and the Majoritarian Premise”, in: Ronald Dworkin, *Freedom’s Law: The Moral Reading of the American Constitution*, Harvard University Press, Cambridge Mass 1996, pp. 1-38.

⁹⁰ A series of treaties (The Peace of Münster; The Treaty of Münster, and Treaty of Osnabrück which marked the end of the Thirty Years War, also referred to also as the Treaty of Munster and Osnabruck, signed between May and October of 1648.

⁹¹ A rather devious “backdoor” agreement drawn up between Britain and France and to which Russia was a consenting party (November 1915- March 1916; eventually signed in May of 1916). This agreement designated future spheres of influence. The deal was brokered by a British diplomat Mark Sykes and his French counterpart, François Georges-Picot. The revelation of the plot was disclosed by the Bolsheviks following the revolution in Russia in 1917.

⁹² This agreement was confirmed by the Allies following WWI, during a conference in San Remo in 1920. The basis was the establishment of a Jewish homeland in Palestine.

⁹³ A series of diplomatic exchanges between July 1915 and March 1916, during which the two principle protagonists: Hussein bin Ali, the Sharif of Mecca, and Lieutenant Colonel Sir Henry McMahon, the British High Commissioner to Egypt, discussed the division of spoils of the soon to be dispossessed Ottoman Empire (officially dissolved November 1, 1922). Ostensibly favorable to Arab political and geographic interests.

⁹⁴ The Treaty of Versailles was the political instrument produced from the Paris Peace Conference marking the end of WWI. Signed June 28, 1919, symbolically and precisely five years following the assassination of the Archduke Franz Ferdinand which initially led to the outbreak of hostilities.

⁹⁵ Taylor, R., and J Reising. *Introduction*. RTO-TR-HFM-078, Neuilly-sur-Seine: NATO Research and Technology Organization, 1985: p. 1-9

⁹⁶ Note that the term kinetic is a specific technical term of the art. It is used to describe physical activity relating to the military, the police, medicine and pedagogical theory.

⁹⁷ Huntington, Samuel P. *The Clash of Civilizations and The Remaking of World Order*. New York: Simon and Schuster, 2011; p. 92.

⁹⁸ Carr, Caleb. *The Lessons of Terror: A history of warfare against civilians*. New York: Random House, 2003: p. 21.

⁹⁹ Occam's razor, alternatively known as the law of parsimony, is attributed to William of Okham 1287–1347. The principle relies upon the selection of the simplest response to a given number of hypothetical possibilities. A sort of lazy person's guide to logic. It is heuristic (a short cut facility in nature).

¹⁰⁰ Brooks, Rosa. "Take Two Drones and call Me in the Morning." *www.foreignpolicy.com*. September 13, 2012. <http://foreignpolicy.com/2012/09/13/take-two-drones-and-call-me-in-the-morning/> (accessed April 15, 2016).

¹⁰¹ Walzer, Michael. *Just and Unjust Wars: A moral argument with historical illustrations*. 5th. New York: Basic Books, 2015:p. 85 (in reference to pre-emptive strikes), pp. 216, 218 (relation to reprisals). This is also stated in the preface of his earlier fourth edition, where he formulates "elements of the containment system as 'measures short of war.'"; See also: Brunstetter, Daniel, and Megan Braun. "The Implications of Drones on the Just War Tradition." *Ethics & International Affairs* 25, no. 3 (2011): p. 343

¹⁰² The intelligence cycle contains the following procedures: Requirements, Planning, Collection, Processing and Exploitation, Analysis and Production, finally Dissemination.

¹⁰³ See: https://www.hrw.org/sites/default/files/supporting_resources/financial-statements-2016.pdf

¹⁰⁴ Ballesteros Andres, Restrepo Jorge A, Spagat Michael, Vargas Juan F (2007) *The Work of Amnesty International and Human Rights Watch: Evidence from Colombia* (http://www.ngo-monitor.org/data/images/File/evidencefromcolumbia_feb2007.pdf).

¹⁰⁵ For an interesting report on this phenomenon refer to: Cohen, Dara Kay, and Amelia Hoover Green. "Dueling Incentives." *Journal of Peace Research* 49, no. 3 (2012): 445-58.

¹⁰⁶ See her report here: <http://forward.com/opinion/israel/146339/gazas-tunnel-economy-is-booming/>

¹⁰⁷ Cliteur, Paul, and Tom Herrenberg. "On the Life and Times of Dutch Blasphemy Law (1932-2014)." Chap. 4 in *The Fall and Rise of Blasphemy Law*, edited by Paul Cliteur, & Tom Herrenberg, 71-109. Leiden: Leiden University Press, 2016:pp. 94-95.

¹⁰⁸ *Ibid.*, p. 94.

¹⁰⁹ Grossman, Lev. *Drone Home*. February 11, 2013. <http://www.time.com/time/magazine/article/0,9171,2135132,00.html> (accessed February 7, 2013).

¹¹⁰ Schmitt, Michael N. "Human Shields in International Humanitarian Law." (January 4, 2009). *Columbia Journal of Transnational Law*, Vol. 47, 2009. Available at SSRN: <https://ssrn.com/abstract=1600258> 47 (2009): p. 25.

¹¹¹ Harvard University. *Manual on International Law Applicable to Air and Missile Warfare*. Bern: Harvard University: Program on Humanitarian Policy and Conflict Research (HPCR), 2009.

¹¹² For a further discussion on the rather Manichean aspects of the left versus right political dichotomy, the reader is directed to: Eysenek,H.J. *The structure of Human personality*. Wiley. London 1953. See also: Taylor, Maxwell. *The Fanatics: A behavioural approach to political violence*. London: Brassey's, 1991 p. 92 and passim.

¹¹³ Donne, John. *The Works of John Donne*. vol III. Henry Alford, ed. London: John W. Parker, 1839. 574-5. This expression which lent itself to the famous Ernest Hemmingway title, was also part of and encompassed in *Meditations*, a set 23 prose dedicated to Prince Charles, son of King James the first. It was a part of his "Meditation XVII" from *Devotions Upon Emergent Occasions*, written while sickly and near death, though he eventually survived. The bell relates to the tolling of a funeral bell.

¹¹⁴ *Ibid.* infra note 238.

¹¹⁵ Ackerman, Spencer. "41 Men Targeted but 1,147 People Killed: US drone strikes – the facts on the ground." *The Guardian*, 2014: n.p.

¹¹⁶ McCurley, T. Mark. *Hunter Killer*. New York: Dutton, 2015: p.152.

¹¹⁷ O'Connell, Mary Ellen. *Unlawful Killing with Combat Drones*. Research Paper, Notre Dame: Notre Dame Law School, 2010.pp. 1, 4

¹¹⁸ *Ibid.*, p. 1

¹¹⁹ Enemark, Christian. "Drones, Risk, and Perpetual Force." *Ethics & International Affairs* (Cambridge University Press) 28, no. 3 (2014): p. 366

¹²⁰ Elshtain, Jean Bethke. *Just War Against Terror: The burden of American power in a violent world*. New York: Basic Books, 2008: p. 67

¹²¹ This concept has been generally attributed to Carl von Clausewitz. See: Clausewitz, Carl von. *The Essential Clausewitz*. Edited by Joseph I. Greene. Mineola: Dover Publications Inc., 2003.

¹²² CJCSI 3160.01, *No Strike and the Collateral Damage Estimation Methodology*. See: https://www.aclu.org/files/dronefoia/dod/drone_dod_3160_01.pdf

¹²³ McKenzie, Nick. "Military dispute over casualties." *The Sydney Morning Herald*, May 2009: [Online] <http://www.smh.com.au/national/military-dispute-over-casualties-20090517-b7en.html>.

¹²⁴ O'Connell, Mary Ellen. *Unlawful Killing with Combat Drones*. Research Paper, Notre Dame: Notre Dame Law School, 2010. p. 24

¹²⁵ See art. 51 and 57 of the Additional Protocol of the Geneva Conventions, in particular art. 57 par. 2 sub b.

¹²⁶ Brunstetter, Daniel, and Megan Braun. "The Implications of Drones on the Just War Tradition." *Ethics & International Affairs* 25 (2011):p. 348.

¹²⁷ Ackerman, Spencer, and Sune Engel Rasmussen. "Kunduz Hospital Attack: MSF's questions remain as US military seeks no charges." *The Guardian*, April 2016: Online.

¹²⁸ US Army Training and Doctrine Command (TRADOC). *Field Manual No. 3-0. Operations: Part Two, Chapter 4-12*. Washington D.C.: Headquarters Department of the Army, 2001.

¹²⁹ Hesco barriers were the large wire framed, protective gabions with a canvas interior filled with sands and rocks in order to provide protection, while the larger concrete and reinforced iron devices were referred to as "T" walls, due to their distinctive shapes.

¹³⁰ Chivers, C.J. "Mao's Rockets and the Eastern Afghan Border War (Parts I and II)." <https://atwar.blogs.nytimes.com>. October 26 - 27, 2011. https://atwar.blogs.nytimes.com/2011/10/26/maos-rockets-and-the-eastern-afghan-border-war-part-i/?_r=0 AND; <https://atwar.blogs.nytimes.com/2011/10/27/maos-rockets-and-the-eastern-afghan-border-war-part-ii/> (accessed May 5, 2017).

¹³¹ A Banzai attack was a suicide tactic employed by Japanese soldiers in WW2. They would send human waves. Literally Banzai in Japanese means a long life of 10,000 years, in other words eternity. Ban =10,000 and Sai = Years

¹³² See: Molier, Gelijjn. "The War on Terror and Self-Defence against Non-State Actors." Chapter 10, In *Terrorism: Ideology, law and policy*, edited by Ellian Afshin, Gelijjn Molier, & David Suurland. Dordrecht: Dordrecht: Republic of Letters Publishing, 2011: p/ 312.

¹³³ From H. Grotius, *De Iure Belli Ac Pacis*, Bk II, Ch I, pt. III, at 72 as cited in Schachter, Oscar. "Self-Defense and the Rule of Law." *The American Journal of International Law* 83, no. 2 (1989): p.259.

¹³⁴ Considerations relating to the Kellogg-Briand pact between the U.S. and France are relevant in this regard. Schachter, Oscar. "Self-Defense and the Rule of Law." *The American Journal of International Law* 83, no. 2 (1989): p. 261. Consider also: "Kellogg-Briand Pact." *Encyclopedia of Russian History*. . *Encyclopedia.com*. 10 Oct. 2018 <<http://www.encyclopedia.com>>.

¹³⁵ Refer to: *Case Concerning Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v. United States of America)*; *Merits*, International Court of Justice (ICJ), 27 June 1986, available at: <http://www.refworld.org/docid/4023a44d2.html> [accessed 9 December 2016] p. 93, para 195. See also: http://www.lawofwar.org/nicaragua_v_us.htm

¹³⁶ Dill, Janina. *Legitimate Targets? Social construction, international law and US bombing*. Cambridge: Cambridge University Press, 2015: p.292.

¹³⁷ This 108-page report developed by the International Commission on Intervention and State Sovereignty (ICISS) concerns state obligations of the Right to Protect (R2P). While addressing civilian casualties, oppression and the obligations of states to provide security it logically, by extension, must necessarily also refer to the right to protect a nation's own citizens in the guise of self-defense *against external agents* and dangers as well, notwithstanding the fact that the report fails to directly address such an issue.

¹³⁸ This term has been variously translated, however the sense in nearly identical writ large. It has been attributed to the Roman writer, philosopher and politician Cicero and more precisely his work: *De Legibus* (bk III: III; viii), where the term is preceded by the Latin word "Ollis," an archaic form of *illis* relating to an article referring to "those persons."

¹³⁹ Cullen, Peter M. "The Role of Targeted Killing in the Campaign Against Terror." *Joint Forces Quarterly*, 2008. p. 24

¹⁴⁰ Brooks, Rosa. "Take Two Drones and call Me in the Morning." *www.foreignpolicy.com*. September 13, 2012. <http://foreignpolicy.com/2012/09/13/take-two-drones-and-call-me-in-the-morning/> (accessed April 15, 2016).

¹⁴¹ Friedman, Benjamin H. "Etzioni and the Great Drone Debate." *The National Interest*. October 5, 2011. <http://nationalinterest.org/blog/the-skeptics/etzioni-the-great-drone-debate-5982> (accessed May 22, 2016).

¹⁴² Radsan, Afsheen John, and Richard Murphy. "The Evolution of Law and Policy for CIA Targeted Killing." *Journal of National Security Law and Policy* 5 (2012): p. 442

¹⁴³ Reed, Esther D. "Just War Reasoning in an Age of Risk." *New Blackfriars* 96, no. 1062 (March 2015):p.210.

¹⁴⁴ Harding, Thomas. "Col Gaddafi killed: convoy bombed by drone flown by pilot in Las Vegas." *The Telegraph*, October 2011.

¹⁴⁵ While a term normally associated with economic theory, the noninterference aspect of this concept is particularly apt in this circumstance.

¹⁴⁶ Byers, Michael. *War Law: Understanding international law and armed conflict*. New York: Grove Press, 2005: p.64

¹⁴⁷ Letter to the Security Council of the permanent representative of the United States of America to the United Nations of 23 September 2014. S/2014/695.

¹⁴⁸ Peritz, Aki, and Eric Rosenbach. *Find, Fix, Finish: Inside the counterterrorism campaigns that killed Bin Laden and Devastated al-Qaeda*. Philadelphia: PublicAffairs, 2012p. 186

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¹⁸² See article 50 of the Articles on State Responsibility. J. Crawford, *The International Law Commission's Articles on State Responsibility: Introduction, Text, and Commentaries*, Cambridge: Cambridge University Press 2002, pp. 281-302, in particular pp. 288-289.

¹⁸³ Art. 51 states: Article 51 states: Nothing in the present Charter shall impair the inherent right of individual and collective self-defence if an armed attack occurs against a member of the United Nations, until the Security Council has taken the measures necessary to maintain international peace and security. Measures taken by Members in the exercise of this right of self-defence shall be immediately reported to the Security Council and that shall not in any way affect the authority and responsibility of the Security Council under the present Charter to take at any time such actions as it deems necessary in order to maintain or restore international peace and security.

¹⁸⁴ A. Randelzhofer, "Article 51" in B. Simms, *The Charter of the United Nations. A Commentary*. Oxford: Oxford University Press, 2002, p. 792; G. Wettberg, *The International Legality of Self-Defence Against Non-State Actors. State Practice from the U.N. Charter to the Present*, Berlin: Peter Lang 2007, p. 20; J. Kammerhofer, "Uncertainties of the Law on Self-Defence in the United Nations Charter," *Netherlands Yearbook of International Law (XXXV)* 2004, p. 194. Contra, although not very convincing: S. D. Murphy, "Self-Defence And The Israeli Wall Advisory Opinion: An Ipse Dixit from the ICJ?" *American Journal of International Law (99)* 205, p. 70

¹⁸⁵ *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America)*, *Merits, Judgment*, ICJ Reports 1986, par. 195. Hereafter "Nicaragua Case." Emphasis mine.

¹⁸⁶ Wettberg 2007, p 65-65, 66.

¹⁸⁷ Y. Dinstein, *War, Aggression, and Self-Defence*, Cambridge: Cambridge University Press 2005, [p. 230-231; Gray 2008, p. 155; Kammerhofer 2004, pp 175-178; R. Van Steenberghe, "Current Legal Developments. Self-Defence in Response to Attacks by Non-State Actors in the Light of Recent State Practice: A Step Forward?," *Leiden Journal of International Law(22)*, 2010 p. 203.

¹⁸⁸ Idem.

¹⁸⁹ *Case Concerning Oil Platforms (Islamic Republic Of Iran v United States of America)*, International Court of Justice, 6 November, 2003, par. 64 (Hereafter "Oil Platforms Case"). In the same sense: *Case concerning Armed Activities On the Territory of the Congo (Democratic Republic of Congo v Uganda)*, International Court of Justice 19 December, 2005 par 146 (Hereafter "Armed Activities Case.")

¹⁹⁰ Oil Platforms Case, par. 72.

¹⁹¹ K. Zemanek, "Armed attack" in: Max Planck Encyclopedia of International Law, pp.2-3, par. 10. On: www.mpepil.com.

¹⁹² Nicaragua Case, par. 113. emphasis mine.

¹⁹³ Nicaragua Case, par. 115. emphasis mine

¹⁹⁴ J. Crawford, *The International Law Commission's Articles on State Responsibility. Introduction, Text and Commentaries*, Cambridge: Cambridge University Press 2002, p. 110.

¹⁹⁵ Crawford, 2002, p. 110, par.1

¹⁹⁶ Crawford 2002, p. 110, par. 1

¹⁹⁷ Crawford, 2002, p. 110 par.1

¹⁹⁸ *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, International Court of Justice 6 July 2004, par 139 (Hereafter: "Wall Opinion"); *Armed Activities Case*, par. 146; *Case Concerning The Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v Serbia and Montenegro)*, International Court of Justice 26 February, 2007, par. 400, 406.

¹⁹⁹ The General Assembly of The United Nations. "Definition of Aggression and Annex." *Resolutions Adopted on the Reports of the Sixth Committee 2319th Plenary Meeting*. New York: The United Nations, 1974; p.143. See also: Wilmshurst, Elizabeth. "Definition of Aggression, United Nations General Assembly Resolution 3314 (XXIX)." *University of Minnesota Human Rights Library*. December 14, 1974. <http://legal.un.org/avl/ha/da/da.html> (accessed December 14, 2016).

²⁰⁰ The expression “Between a rock and a hard place” is a common metaphor used to indicate lesser-evilism or the need to choose between two unappealing choices. While both are inherently bad (dilemmata, or two lemmas or propositions) one is often worse than the other, or the lesser of two evils. It is an old mariner aphorism. It is derived originally from mythology and Homers Odyssey, specifically, describing Odysseus’s need to pass between Scylla and Charybdis (*incidit in scyllam cupiens vitare charybdim*). Other variants include “Between the devil and the deep blue sea, Morton’s Fork and Hobson’s choice. The first recorded usage of the expression, between a rock and a hard place, is found in American Dialect Society's publication *Dialect Notes V*, 1921.

²⁰¹ The legal philosopher John Austin had a profound impact on British and American jurisprudence. According to his views, law should be scientific, empirically based and manmade, independent of any moral influence or strictures. Austin considered law as a balance between power, rules and obedience. It is not surprising, therefore that Austin contested the validity of natural law and developed his theory of legal positivism. Austin was influenced by Jeremy Bentham and John Stuart Mills.

²⁰² See generally: Molier, Geliijn. "The War on Terror and Self-Defence against Non-State Actors." In *Terrorism: Ideology, law and policy*, edited by Ellian Afshin, Geliijn Molier, & David Suurland, 305-336. Dordrecht: Dordrecht: Republic of Letters Publishing, 2011.

²⁰³ Di Meglio JA, LTC Richard P, et al. *Law of Armed Conflict Deskbook: 2012*. Edited by MAJ William J. Johnson, & MAJ Andrew D. Gillman . Charlottesville, Virginia: International and Operational Law Department. The United States Army Judge Advocate General's Legal Center and School, 2014: p.34; In this regard see also: Orakhelashvili, Alexander. "Natural Law and Customary Law." *ZaöRV* 68 (2008): p. 77.

²⁰⁴ Orakhelashvili, Alexander. "Natural Law and Customary Law." *ZaöRV* 68 (2008): p.77

²⁰⁵ Walzer, Michael. *Just and Unjust Wars: A moral argument with historical illustrations*. 5th. New York: Basic Books, 2015: pp. 250 - 267

²⁰⁶ *Ibid.*, pp. 250 – 264.

²⁰⁷ Van Den Hole, Leo. "Anticipatory Self-Defense under International Law." *American University International Law Review*, 2003: p. 79

²⁰⁸ Byers, Michael. *War Law: Understanding international law and armed conflict*. New York: Grove Press, 2005: p.54.

²⁰⁹ Ellian, Afshin, and Molier, Geliijn, eds., Afshin, Elllian, and Geliijn Molier. *The State of Exception and Necessity Under International Law In The State of Exception and Militant Democracy in a Time of Terror*. Dordrecht: Republic of Letters Publishing, 2012" p. 152.

²¹⁰ Letter between Secretary Webster and Lord Ashburton, August 6, 1842 cited in Arend, Anthony Clark. "International Law and the Preemptive Use of Military Force." *The Washington Quarterly*, 2003: p. 91; Refer also to: Arend, Anthony Clark. "International Law and the Preemptive Use of Military Force." *The Washington Quarterly* (Council on Foreign Relations), 2003: 89-103. Refer also to Coleman, Stephen. *Military Ethics: An introduction with case studies*. New York: Oxford University Press, 2013; p. 76.

²¹⁰ Arend, Anthony Clark. "International Law and the Preemptive Use of Military Force." *The Washington Quarterly*, 2003: p. 101.

²¹¹ Byers, Michael. *War Law: Understanding international law and armed conflict*. New York: Grove Press, 2005: p.67

²¹² Tladi, Dire. "The Nonconsenting Innocent State: The Problem with Bethlehem's Principle 12." *The American Journal of International Law*, July 2013.p.573.

²¹³ Refer to: <http://www.icj-cij.org/docket/?sum=367&p1=3&p2=3&case=70&p3=5>

²¹⁴ See for instance: Rouillard, Louis-Philippe. "The Caroline Case: Anticipatory self-defence in contemporary international law." *Miskolc Journal of International Law* 1, no. 2 (2004): 104-120. Passim; Bethlehem, Sir Daniel. "Principles Relevant to the Scope of A States' Right of Self-defense against an Imminent or Actual Armed Attack by Non-state Actors." *The American Journal of International Law* 106, no. 769 (2012): 1-8. Byers, Michael. *War Law: Understanding international law and armed conflict*. New York: Grove Press, 2005. Coleman, Stephen. *Military Ethics: An introduction with case studies*. New York: Oxford University Press, 2013. Corn, Geoffrey S., et al. *The War on Terror and Laws of War*. 2nd. New York: Oxford University Press, 2015. Neff, Stephen C. *War and the Law of Nations*. Cambridge: Cambridge University Press, 2008.

²¹⁵ Bethlehem, Sir Daniel. "Principles Relevant to the Scope of A States' Right of Self-defense against an Imminent or Actual Armed Attack by Non-state Actors." *The American Journal of International Law* 106, no. 769 (2012). p. 4

²¹⁶ Ibid.

²¹⁷ Attributed to: Ashley S. Deeks, "Unwilling or Unable": Toward a Normative Framework for Extraterritorial Self-Defense, 52 Va. J. Int'l L. 483, 486 (2012).

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²¹⁹ Letter dated 23 September 2014 from the Permanent Representative of the United States of America to the United Nations addressed to the Secretary-General, UNDoc.S/2014/695, 23 September 2014.

²²⁰ Refer for instance to: Schmitt, Michael. *Counter-Terrorism and the Use of Force in International Law*. Vol. 79, in *International Law Studies*, by Fred L Borch, & Paul S Wilson, 7-73. Newport: US Naval War College, 2003.

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²²⁴ Vitoria, Law of War., as cited in Neff, Stephen C. *War and the Law of Nations*. Cambridge: Cambridge University Press, 2008: p. 61.

²²⁵ Maple, David R. "Realism, War and Peace." In *The Ethics of War and Peace*, 54-77. Princeton: Princeton University Press, 1998: p.59

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²³³ Mayer, Jane. "The Predator War: What are the risks of the C.I.A.'s covert drone program?" *The New Yorker*, October 2009.

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²⁴¹ The non-intervention principle is a principle of international law which recognizes and gives primacy to the respect of territorial sovereignty. It restricts any external interference, by other states, in the internal affairs of sovereign nations. See: www.judicialmonitor.org/archive_spring2014/generalprinciples.html

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²⁴³ *Ibid.*, p. 81.

²⁴⁴ O'Connell, Mary Ellen. "Unlawful Killing with Combat Drones: A case study of Pakistan, 2004-2009." *Notre Dame Law School Legal Studies Research Paper No. 09-43*, 2010: p. 15.

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²⁴⁸ Operation Neptune Spear. May 2, 2011.

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²⁵⁹ Guiora, Amos. "Targeted Killing as Active Self-Defense." *Case Western Reserve Journal of International Law* 36, no. 2 (2004): p. 319.

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²⁶⁴ For an outstanding analysis on this topic refer to: Price, B. C. (2012, Spring). Targeting Top Terrorists: How leadership decapitation contributes to counterterrorism. *Quarterly Journal: International Security*, 4(36), 9-46. <https://www.belfercenter.org/sites/default/files/files/publication/Price.pdf> (accessed March 3, 2018). See also Johnston, P. B. (2012, Spring). Does Decapitation Work?: Assessing the effectiveness of leadership targeting in counterinsurgency campaigns. *International Security*, 36(4), 47-79. Retrieved from <https://www.belfercenter.org/sites/default/files/files/publication/Johnston.pdf>, March 3, 2018.

²⁶⁵ Price, Bryan C. "Targeting Top Terrorists: How leadership decapitation contributes to counterterrorism." *Quarterly Journal: International Security* 4, no. 36 (Spring 2012): 9-46.

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- ³⁸⁵ After some research the term reverse asymmetry was quoted by Michael Raska in a different register; that of Israel's strategic attempts to balance its disadvantages related to limited numbers of its IDF forces. For more on this variant Raska, Michael. "CO12219 | Creating Reverse Asymmetry: Patterns of IDF's Military Innovation." *www.rsis.edu*. December 5, 2012. <https://www.rsis.edu.sg/rsis-publication/idss/1878-creating-reverse-asymmetry-pa/> (accessed May 24, 2018).
- ³⁸⁶ An EMP attack, is an electromagnetic pulse attack. While the possibility exists theoretically for such an attack, it has, yet, never materialized. A zero-day vector represents a grave unique and unforeseen threat for which no viable security solution has ever been developed. While this is often used to describe IT threats, I have expanded its definition to include physical threats as well. This concept is also referred to as a day-zero exploit or a zero-hour attack.
- ³⁸⁷ Duguay, Yves. "World Water Woes." *Security Management*, 2017: p. 42.
- ³⁸⁸ For specific examples of such war crimes see: Kaphle, Anup. "These dramatic images show apparent mass execution of Iraqi soldiers by ISIS." *www.washingtonpost.com*. June 15, 2014. <https://www.washingtonpost.com/news/worldviews/wp/2014/06/15/these-dramatic-images-show-apparent-mass->

execution-of-iraqi-soldiers-by-isis/?utm_term=.d456a99596d5 (accessed May 23, 2018); Alternatively, for disproportionate responses refer to: vonZielbauer, Paul. "American Soldier Is Found Guilty in Iraqi Killings." *www.nytimes.com*. April 15, 2009. <https://www.nytimes.com/2009/04/16/world/middleeast/16sergeant.html> (accessed April 24, 2013).

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³⁹⁰ Galliot, Jai C. "UNINHABITED AERIAL VEHICLES AND THE ASYMMETRY OBJECTION: A RESPONSE TO STRAWSER," *Journal of Military Ethics* 11, no. 1 (March 2012): 58-66, doi:10.1080/15027570.2012.683703 (accessed March 7, 2013). p.59.

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³⁹² Lin, Parick. "Robots, Ethics & War." *The Center for Internet and Society at Stanford Law School*, December 2010.p.53.

³⁹³ Strawser, Bradley Jay. "Moral Predators: The Duty to Employ Uninhabited Aerial Vehicles." *Journal Of Military Ethics* 9, no. 4 (2010): p. 359.

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³⁹⁷ Tabassum, Zakaria. "As drone monopoly frays, Obama seeks Global Rules." Edited by Warren Strobel, & Mohammad Zargham. *Reuters*, March 2013: n.p.

³⁹⁸ Zakaria, Tabassum. "As drone monopoly frays, Obama seeks global rules." *Reuters*, March 2013: n.p.

³⁹⁹ Wong, Kristina. "Kill Team: Obama war chiefs widen drone death zones." *The Washinton Times*, December 2012: n.p.

⁴⁰⁰ See for instance: Klaidman, Daniel. "The Silent Killers." *Newsweek* 159, no. 23/24 (May, 2012): 38-44.

⁴⁰¹ Peritz, Aki, and Eric Rosenbach. *Find, Fix, Finish: Inside the counterterrorism campaigns that killed Bin Laden and Devastated al- Qaeda*. Philidelphia: PublicAffairs, 2012; p. 4.

⁴⁰² Sroberts. *Sroberts.github*. March 24, 2015. <https://sroberts.github.io/2015/03/24/f3ead/> (accessed June 29, 2016).

⁴⁰³ Scahill, Jeremy. *The Assassination Complex*. New York: Simon and Schuster, 2016: p. 114.

⁴⁰⁴ Peritz, Aki, and Eric Rosenbach. *Find, Fix, Finish: Inside the counterterrorism campaigns that killed Bin Laden and Devastated al- Qaeda*. Philidelphia: PublicAffairs, 2012; p. 8.

⁴⁰⁵ McChrystal, Stanley General. *My Share of the Task*. 1st. New York: Penguin, 2013: p. 177.

⁴⁰⁶ Literally and quite appropriately the” place of the ravens.”

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⁴⁰⁸ This title is drawn and modified from one of Aesop's Fables. Here the fabled Lion in the story has been replaced by an elephant to emphasize the disparity of size. Historically the Fables are attributed to a Slave of ancient Greece between the 7th and 6th centuries B.C. The stories were first developed in the oral tradition and later transcribed into writing. This of course led to many twists and variations on the original tales. With the advent of Gutenberg's printing press the fables were disseminated world-wide. This fable depicts the story of a lion who shows mercy upon a mouse, pleading to be speared. The lion shows mercy to the mouse and fate has it that later the lion caught in the net of hunters is freed by the mouse. A subtle wink at the principle of asymmetry.

⁴⁰⁹ Sun Tzu, *The Art of War*, Samuel B. Griffith, trans., London: Oxford University Press, 1971, pp. 66-67.

⁴¹⁰ Griffiths in: Tse-tung (Zedong), Mao. *On Guerilla Warfare*. Translated by Samuel B. Griffith. Middletown, Rhode Island: BN Publishing, 2007 [1937]: p. 7.

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⁴¹² Marchant, Gary E., et al. "International Governance of Autonomous Military Robots." *The Columbia Science and Technology Review* XII, no. 7 (2011): p. 3.

⁴¹³ Ibid., p.5.

⁴¹⁴ Hammes, Thomas X. *The Sling and the Stone*. St. Paul, Minnesota: Zenith Press, 2004: p. 3.

⁴¹⁵ Sir Isaac Newton's 3rd law of physics. Presented in his treatise, *Principia Mathematica Philosophiae Naturalis*, published in 1686. <https://www.grc.nasa.gov/www/k-12/airplane/newton.html>

⁴¹⁶ Known as the "Firefly" and produced by Ryan aeronautics, the unmanned aircraft, never a great success for numerous reasons as outlined in Peter Singer's *Wired for War*: pp 54-55.

⁴¹⁷ Hammes, Thomas X. *The Sling and the Stone*. St. Paul, Minnesota: Zenith Press, 2004: p.191.

⁴¹⁸ Ibid.

⁴¹⁹ Ibid., p.7.

⁴²⁰ Schmitt, Michael. "Asymmetrical Warfare And international Humanitarian Law." *Air Force Law Review* 62 (2008): p. 2

⁴²¹ This Initiative was aimed at curtailing the mutually assured destruction pact (MAD) between the nuclear powers, that President Reagan considered to be a "suicide pact." Negatively labeled as "Star-Wars schemes by Democratic opponent Edward Kennedy in a March 24, 1983, article published by *The Washington Post*. The SDIO, the organization in control of the SDI initiative and research was renamed Ballistic Missile Defense Organization (BMDO), by the subsequent Clinton administration. This change also reflected a more important policy shift away from national defense strategy to a theater-centric model.

⁴²² Mockenhaupt, Brian. "We've Seen the Future and It's Unmanned." *Esquire*, November 2009: 131-162.

⁴²³ Mayer, Jane. "The Predator War: What are the risks of the C.I.A.'s covert drone program?" *The New Yorker*, October 2009. [Http://www.newyorker.com/reporting/2009/10/26/091026fa_fact_Mayer#ixzz2MCx8Wqsc](http://www.newyorker.com/reporting/2009/10/26/091026fa_fact_Mayer#ixzz2MCx8Wqsc).

⁴²⁴ As Lisa Jardine writes, there was also widespread panic when the handgun was invented. It could kill kings from a distance, as was the case with the Dutch William of Orange. See: Jardine, Lisa, *The awful End of Prince William the Silent: The First Assassination of a Head of State with a Handgun*, HarperCollins, London 2005.

⁴²⁵ Nawaz, Shuja. "Drones Inside Pakistan." *Georgetown Journal of International Affairs*, 2011: p.85.

⁴²⁶ O'Connell, Mary Ellen. "The International Law of Drones." *The American Society of International Law* 14, no. 36 (2010).

⁴²⁷ See for instance: Lin, Patrick. "Drone-Ethics Briefing: What a Leading Robot Expert Told the CIA." *The Atlantic*, 2011: n.p.

⁴²⁸ Singer, Peter W. *Wired for War: The Robotics Revolution and Conflict in the 21st Century*. New York: Penguin Group (USA) Inc., 2009: p. 412.

⁴²⁹ Cliteur also suggests that, "The struggle against terrorism is also an ideological struggle. What we encounter in contemporary religious terrorism is not a "clash of civilizations," to use the famous words of Samuel Huntington, but it is certainly a battle between ideologies." Cliteur, Paul. "Cultural Counter - Terrorism." In *Terrorism: Ideology. Law and Policy.*, edited by Afshin Ellian, Gelijs Molier, & David Surland, 457-490. Dordrecht: Republic of Letters Publishing., 2011: p. 458.

⁴³⁰ Hammes, Thomas X. *The Sling and the Stone*. St. Paul, Minnesota: Zenith Press, 2004: p. 75.

⁴³¹ Hobbes, Thomans. *The Leviathan: Or the matter forme & power of a Common-wealth ecclesiasticall and civill*. London: Andrew Crooke, 1651: XIII.9

⁴³² This was, in fact, a similar assertion made by Paul Pillar, Deputy Director of the CIA counterterrorist Center from 1993 – 1999. Paul pointed out that speaking of a war against terror was misleading and suggested that "Perhaps a better analogy is the effort by public health authorities to control communicable diseases." See: Pillar, P. (2003). *Terrorism and U.S. Foreign Policy*. Washington D.C.: Brookings Institution Press; Pbk. Ed edition; p.218. Also cited in: Coll, Steve. *Ghost Wars: The secret history of the CIA, Afghanistan, and bin Laden, from the Soviet invasion to September 10, 2001*. New York: Penguin, 2004; p.433.

⁴³³ A term employed by CIA personnel which was often heard in the field.

⁴³⁴ Based upon the idiomatic expression "before the horse has bolted from its stall," infers rectifying a problem that has already occurred. *Farlex Dictionary of Idioms*. S.v. "closing the stable door after the horse has bolted." Retrieved April 2 2018 from <https://idioms.thefreedictionary.com>

⁴³⁵ Hammes, Thomas X. *The Sling and the Stone*. St. Paul, Minnesota: Zenith Press, 2004.

⁴³⁶ Deane, Michael J. *The Soviet Concept of the Correlation of Forces*. Technical Note: SSC-TN-4383-1, Washington D.C.: Stanford Research Institute, 1976.

⁴³⁷ Dictionary of Military and Associated Terms, s.v. [sub verbo, or under the word or heading] "joint targeting coordination board." Retrieved June 30, 2016 from <http://www.thefreedictionary.com/joint+targeting+coordination+board>

⁴³⁸ Krauthammer, C. (2004) "An American foreign policy for a unipolar world," American Enterprise Institute for Public Policy Research February (p.5–8)

De Grotius Sanctie:

Deus Ex Machina. Wettelijk, ethisch en strategisch gebruik van drones bij transnationale bewapende conflicten en terrorismebestrijding.

Abstract/Samenvatting

De opkomst van gerobotiseerde oorlogsvoering hangt nauw samen met het ontstaan van transnationale bewapende oorlogsvoering. Na de gebeurtenissen van 11 september zijn beide fenomenen drastisch toegenomen. Toen ik met dit onderzoek begon, was het gericht op het gebruik van bewapende drones en het wettelijk, ethisch en strategisch gebruik hiervan. Het werd echter al snel duidelijk dat over drones spreken zonder terrorisme in ogenschouw te nemen niet alleen contra-intuïtief zou zijn, maar ook contraproductief. Het gebruik van bewapende drones als een voorkeurswapen in de strijd tegen terrorisme is grotendeels ontwikkeld als reactie op een nieuw soort oorlogsvoering: een oorlogsvoering die geen regels, morele principes of grenzen respecteert.

Naast de strategische, operationele en tactische inzet van drones bestaat er een scala aan gerelateerde onderwerpen om te onderzoeken. Er waren vragen met betrekking tot concepten als dreiging, opzet, preventief aanvallen, zelfverdediging, nevenschade, doelgericht doden, autonomie en nationale soevereiniteit. Ik heb hierbij gepoogd een goede balans te vinden tussen deze gerelateerde kwesties. De focus van dit onderzoek ligt primair op de juridische, ethische en strategische aspecten van het gebruik van op afstand bestuurbare, bewapende voertuigen. Het beperken van de discussie en analyse tot deze drie onderwerpen was alleen al een grote uitdaging.

Er is veel literatuur geproduceerd over het gebruik van drones, maar veel hiervan slaagt er niet in het onderwerp coherent en onpartijdig te benaderen. Zoals verwacht maakte het onderwerp veel debat los, met criticasters en voorstanders die sterk verdeeld waren over de kwestie. Net als in de derde wet van Newton heeft elk argument tégen het gebruik van drones een gelijkwaardige tegenpool vóór de inzet ervan. Het doel van dit onderzoek is om deze verschillende zienswijzen op een onpartijdige manier te identificeren en analyseren evenals te onderzoeken wat de mogelijke juridische, ethische en strategische opties zijn. Waar er mogelijkheid bestaat om aanbevelingen te doen en conclusies te trekken, probeert dit onderzoek dat te doen.

The Grotius Sanction

The legal, ethical, and strategic use of drones in transnational armed conflict and counterterrorism.

Abstract/Summary

The advent of robotic warfare is closely related to the appearance of transnational armed conflict. Following the events of 9/11 both these phenomena witnessed a spectacular increase in activity. When I first began this research, it was dedicated to the questions surrounding the use of armed drones and their legal, ethical and strategic use. It soon became apparent that to speak of drones, without referring to terrorism would not only be counterintuitive, it would also be counterproductive. The use of armed drones as a weapon of choice in the combat against terrorism was developed largely as a response to a new type of warfare; a warfare that respected neither rules, morals, or boundaries.

In addition to the actual strategic, operational, and tactical deployment of drones, there existed a host of related topics to examine as well. There were questions relating to the concepts of imminence, intent, preemption, self-defense, collateral damage, targeted killing, autonomy, and national sovereignty. I attempted to strike a fair balance with regard to these related issues. The focus of this research centered primarily on the legal, ethical, and strategic aspects of the use of remotely piloted armed vehicles. Limiting the discussion and analysis to these three topics was itself a major challenge.

There has been much literature produced relating to the use of drones, however, much of it fails to adopt a cohesive and unbiased approach to the topic. As might be surmised the topic raises a very heated debate with critics and proponents adamantly divided on either side of the issue. Much like Newton's third law of gravity, for every argument against the use of armed drones, there exists an equal and opposite argument supporting their use. The purpose of this research is to expose and analyze these various viewpoints in an unbiased manner and examine what possible legal, ethical, and strategic options exist. Where there exists an opportunity to make recommendations and draw conclusions this research has attempted to respond to these gaps.

Curriculum Vitae

James Patrick Allen Welch (Dorchester, 5 January 1955) attended the New York State public education system from which he graduated in 1972. He then went on to complete 20 years of Military service with the United States Marine Corps. Following three years of active service James was transferred to the temporary reserves due to injuries sustained in the line of duty. His first encounter with higher education resulted in obtaining an Associate of Arts degree (AA) from Adirondack community College.

James served in the role of a “stay-at-home-father” raising his two children. He subsequently taught immersion English in the Belgian public-school system (2007-2010) and was sworn in as a translator/interpreter with the Belgian federal police and courts (2009). In 2010 James was deployed to the combat zone of Iraq, as an Army Education counselor. He began work on his Bachelor of Science degree with the University of Maryland. James was once again deployed to a combat zone this time in Afghanistan (2011-2012). Embedded with the US Army and working for various agencies, he continued his educational goals. During the last semester of studying for his BSc James also undertook two master’s degrees as well. James was awarded his BSc (magna cum laude) in May 2012, an MA in international area studies with Oklahoma University (magna cum laude) May 2013, an MA in intelligence studies with American Military University (summa cum laude) May 2013.

James taught policing on a wide variety of topics, in the UAE during two years from 2013-2015. James currently works in an on-call basis, as a sworn cultural and linguistic adviser to the US Department of Defense, He has recently taken a position with the Rabdan Academy in Abu Dhabi, UAE as a senior lecturer delivering master level lectures on various aspects of policing and national security.