BEYOND PRECISION:

Issues of Morality and Decision Making in Minimizing Collateral Casualties

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ABOUT THE AUTHOR

Lieutenant Colonel Dwight Roblyer was the National Defense Fellow at the University of Illinois at Urbana-Champaign during the 2002-2003 academic year. He served as a visiting researcher in the Arms Control, Disarmament, and International Security (ACDIS) Program, marking the twentieth anniversary of this fellowship and of the exchange of ideas between the Air Force and ACDIS. Lt. Col. Roblyer did research on the moral dimensions of the military’s approach to minimizing collateral casualties and damage. His research was partially supported by a research grant from the Air Force Institute of National Security Studies.

Lt. Col. Roblyer spent the five years preceding this fellowship in two assignments at the Pentagon. Initially he worked in the headquarters of the Air Force with command and control policies and funding that directly supported the people and systems discussed in this paper. Following that, he served on the Joint Staff where he designed and conducted politico-military tabletop war games for two years. It was in this forum, listening to senior defense leaders wrestle with difficult issues both before and after the start of the Global War on Terrorism, that his interests were piqued regarding this research topic.

Lt. Col. Roblyer was commissioned in May 1984, and was a Distinguished Graduate of the Air Force Reserve Officer Training Corps (ROTC) at Texas A&M University where he earned a Bachelor of Arts in Physics with a minor in psychology. He entered the space operations field as the Air Force was creating Air Force Space Command and helped certify its first squadron of military communication satellite operators. In 1992, Lt. Col. Roblyer received a Masters of Science in Space Operations from the Air Force Institute of Technology. Since then, his experience broadened to include space-based missile warning operations and a staff position at the headquarters of Air Force Space Command, where he is scheduled to return in June 2003.
Coalition aircraft [had] regularly been the target of hostile fire from the Deh Rawod area... Gunfire from various caliber weapons was observed throughout the day and at night, including mortars and AAA [anti-aircraft artillery] fire... Several compounds in the Deh Rawod area were positively identified as sources of this AAA fire. AAA fire had emanated from these compounds on repeated occasions over the previous two days and the source of the fires did not change. In all cases, the locations of these compounds were such that they could range and threaten coalition ground and airborne forces... As coalition ground and airborne forces approached the area, fire erupted from some of the compounds. By firing, these AAA batteries established that they were manned, armed, and operational. Their proximity to the objectives, landing zones, and blocking positions made them a threat to inbound coalition forces. Consequently, these sites were valid targets and AC-130 aircraft were directed toward them.

Significant efforts were expended to ensure only the compounds that were the sources of fire were targeted. At the first targeted compound, the apparent location of most of the deaths and injuries, AAA fire was directed at the AC-130 as it approached. At one location, however, the AC-130 arrived at a target and found it to be “cold” and elected not to strike it.

The AC-130 was not able to observe the AAA weapon itself. Rather, the ground location of the source of the fire was identified and fires were directed to that area. Just as the weapon itself is not seen, it is also not possible to determine if the fires from the AC-130 have damaged or destroyed the weapon. Consequently, personnel at the weapon’s location were the primary targets. Unfortunately, it [was] also not possible to distinguish men from women or adults from children...

The dead and wounded later observed by coalition forces were mostly women and children. Coalition medical personnel treated the wounded. Four wounded children were medically evacuated by helicopter... Further, the local Afghans maintained that most of the dead had already been buried – although no fresh gravesites were observed.¹

So read excerpts from the military’s official report of one tragic incident in Oruzgan Province of Afghanistan during the ongoing United States military air operation against the Taliban and the al Qaeda terrorists they harbored. The civilian deaths were not intentional; the report highlights several preliminary steps taken to avoid just such a result. However, there have been multiple reports of attacks by the American air forces against enemy military targets in Afghanistan that have resulted in the accidental deaths of, and injuries to, civilians. Such incidents during war are deeply troubling, but usually do not violate the international humanitarian laws that govern conduct in war. Nevertheless, the United States military continues to seek out ways to reduce these incidences of collateral casualties while also considering them an unavoidable cost of protecting vital national interests. While much has been done in the way of technology and procedure to minimize undesired suffering of innocents, additional benefit is available from increasing attention to the ethical plight of the military members making decisions about targeting. This is not only right in accordance with morality, international law, and the national values of the United States, but it will also further its national interests.

Even combat in the name of the highest human values, such as liberty and justice, continues to sometimes result in consequences to innocent bystanders that appear inconsistent with those values. Such outcomes in the course of American military operations in Afghanistan continue to pose a particular moral dilemma for Americans, their government, and their military. A public opinion poll in October 2002 concluded that the United States continues to view itself as a virtuous nation that overwhelmingly acts as a force for good around the world.² This

¹
self-assessment is emphatically reflected in the ranks of the United States military, where all members are trained and required to act legally, especially in the midst of combat. Military members also take great pride in their moral standards, as well as in the virtues they seek to live out. Yet in the aftermath of the terrorist attacks against America on September 11, 2001, domestic and international critics have challenged some of the military strikes launched by the air forces of the United States on moral grounds. Some of them seem to ask: “Given the reports of civilian casualties, was that the right thing to do?” Both at home and abroad, the United States is being morally judged, not just by how technologically advanced its bombs may be, nor solely by the standards of international law, but by the rightness of its perceived intents and motives in launching military air strikes, and especially by the “rightness” of the consequences that result from those operations.

Objectives and Structure
This paper will analyze how the United States military currently endeavors as a moral agent to “do the right thing” while preparing for air strikes. While the machines of air war can be further improved, much of the moral burden of collateral casualties and damage falls on the military decision makers who employ them. Military members make or support many of the decisions about where, when, and how those machines will strike. These decisions often exist in the moral territory beyond the black-and-white bounds of legal standards where multiple right objectives compete for priority. It is also the moral dimensions of accumulated individual decisions that perhaps register the most clearly in any determination of the overall morality of an organization—or a country. Thus, in order to win wars while protecting innocent lives, the people of the United States desire a military that strives to attain the highest moral standards, and military members involved in the targeting decision process deserve the best moral preparation and decision-making tools their nation can provide.

While the military and the media have focused repeatedly on the technological advances that have increased the precision of attacks from the air, the present research has examined the moral aspects of the military’s procedures to minimize the incidences of unintentional civilian deaths and injuries resulting from attacks from the air. The author will argue that the United States has developed an approach that is strongly grounded in international law, but one that offers opportunities for improvement when viewed from a moral perspective focused on the decision-making process. These improvements do not seek to prescribe specific standards for weighty moral matters surrounding the issues of collateral casualties and damage. Instead, the intent is to examine the institutional setting within which individuals make very difficult decisions under very difficult conditions. This paper then offers recommendations intended to better equip current and future military specialists and leaders to consider and weigh the moral implications of the issues they face involving the avoidance of collateral civilian casualties. These recommendations may not only further reduce collateral casualties, but also strengthen the moral grounding for future American military actions and better support the national interests of the United States.

This paper begins with a brief survey of the nature of undesired civilian death and injury resulting from wartime attacks from the air, and then examines the goals and the characteristics of air operations in Afghanistan in support of Operation Enduring Freedom (OEF). Following this is a review of the moral principles and legal standards that exist, against which the wartime actions of the United States are often compared. Next, the paper describes the process currently employed to plan air strikes, citing as primary sources the official doctrine, training, policy, and procedures used by the United States Air Force and the United States Central Command, which is the joint combatant command executing OEF. This process description is followed by considerations from the fields of applied ethics and decision analysis as they pertain to identifying possible issues in the decision support provided to military members who must make very difficult moral judgments in the targeting process. Finally, from this examination, the paper offers insights and recommendations to improve this moral decision support for military specialists and decision makers who work both to avoid unintended harm to innocents and to pursue national objectives.

Terminology and Assumptions
There are several issues to clarify regarding some of the terms used in this paper. “Air forces” refer to the aircraft, personnel, and resources of the Air Force, Navy, and Marines that form the vast majority of the fixed-wing component of the United States military. Also, this paper assumes that the persons negatively affected by an incident of collateral casualties or damage are innocent civilian non-combatants, hereafter referred to as “civilians” or “innocents.” While civilians can theoretically be divided into subcategories, with some arguably non-innocent, there will always be innocent civilians in any conflict and they are the focus of this paper. Although a worthy endeavor,
this paper will not include an exploration of the moral or legal complexities involved in determining a victim’s innocence or status as a non-combatant. Furthermore, the question of effects on combatants who have been effectively defeated or are out of action (hors de combat) is beyond the scope of the present inquiry. The paper also addresses only the military’s role in the decision processes described. Under the laws of the United States, the elected and appointed civilian members of government oversee and direct its military forces. As such, they play key roles in forming and dictating guidance and in making critical decisions in the execution of military operations. However, the military members must still interpret the guidance, formulate advice for high-level decisions, and make many decisions delegated to their level.

The author’s choice to use “collateral casualties” or “civilian casualties” in conjunction with or instead of “collateral damage” also requires explanation. “Collateral damage” is a term often used for the group of undesired consequences resulting from a military attack and involving either people or property. For those individuals who have lost family members or friends in incidences of “collateral damage,” or who have been injured themselves, the term “damage” does not seem to acknowledge the fact that there has been a tragic loss of health or life. While the United States military has used this term in the past, the Department of Defense frequently used the term “civilian casualties” during OEF press briefings. In its published guidance to its legal advisors, the United States Air Force uses references similar to and including “collateral casualties and damage.” Similarly, out of respect for those civilians who have tragically suffered and in deference to potential sensitivities toward the use of anodyne language to describe their travail, the author will refrain from using the term “collateral damage” to refer to instances of civilian deaths or injuries. Sometimes collateral damage to property, though a possible consequence of air strikes, may not be mentioned at all in order to place the emphasis on the civilian casualties, which carry greater moral importance.

Throughout, this paper will draw on both civilian and military resources. Several of the official documents referenced in this paper were written by the United States Air Force. However, while the Air Force is the lead military service for developing technology and processes in many areas related to air strikes, in time of war all United States military services fight together as a joint force. This paper is written in that same spirit of “jointness.”

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PART 2

The Nature Of Collateral Casualties
and the War In Afghanistan

The thesis of this paper requires a two-part foundation that will be discussed in Parts 2 and 3. Part 2 will first address the complexities behind the deceptively simple term “collateral casualties and damage” and the difficult task of ending or reducing occurrences of such harm. Second, pertinent facts about the United States military air operations in Afghanistan will provide context for the ensuing discussion about procedures and decision making. Part 3 will then offer a survey of the moral and legal principles and standards that motivate efforts to reduce harm to civilians that results from air strikes.

Collateral Casualties From Air Attack

The range of consequences associated with incidences of undesired death and injury following an air strike can be very broad, ranging from minor wounds to injuries that maim individuals for life, and from the death of a single, innocent person to the loss of dozens of innocent family members and neighbors. On the scale of time, unintended casualties and destruction can result immediately from exploding ordnance—or days, weeks, or years later as the result of buried, autonomous, or malfunctioning weaponry. Some definitions of “collateral casualties” include sickness and starvation that can result from damage to basic infrastructure or interruption of humanitarian aid efforts in the immediate area. The international law of warfare is very clear that civilian persons who are not actively aiding the enemy military forces must not be the objective, or target, of any attack. When such persons are purposefully harmed as the objective of a military operation, these acts are declared war crimes, a category separate and distinct from that of unintended, innocent casualties. Individuals, in addition to states, can be held accountable for these crimes against humanity.

In addition to the personal consequences to those who are inadvertently swept up in the effects of war, civilian deaths and injuries can also have significant effects on the nation that launched the attack and the political objectives it is pursuing. Because of the civilian population’s suffering and the resulting perception of injustice, pre-existing sympathies toward the United States can be lost or hatred deepened within the country or region containing the fighting. When media outlets flash reports of the incident around the region and the world, the local perception of injustice can rapidly expand into broad criticism of, and sometimes changes to, the policies and strategies in use by the nation that mounted the attack. Those changes can potentially restrict or even cancel future operations. One senior instructor summarized these indirect effects of civilian casualties during a United States military training session about a previous conflict: “We knew that no single bomb would win the war, but also that one wayward bomb could lose it.”

While the results of unintended civilian casualties can be dire in both the personal and political dimensions, the complete elimination of such incidents is an elusive goal. Even “precise” weapons can land at precisely wrong locations and cause incidents of unintended suffering. Shaw has compiled a list of eight different causes for such tragic outcomes. One of these causes, human error, can result from wrong or insufficient intelligence. The intended target location may be hit, but not the intended target “content.” Human error can also result from mistakes in communication, identification, or dexterity, leading to the launch of a weapon at an incorrect target. Another group of causes, technological failures, can occur in the mechanical or electronic components of weapon systems, causing them to veer off course and miss their target. Such malfunctions were the cause of the two collateral casualty and damage incidents in October and November 2001, according to initial assessments by the United States military.

Unexpected and unnoticed civilian activity in the target’s vicinity can mean that innocent people are caught up in the destruction intended for the military object of the attack. This can more easily occur when military targets are located in or near locations such as “dual use” civil urban infrastructure that also directly supports enemy military activities. Civilians are also placed at risk when their government intentionally attempts to shield its military systems by placing them in neighborhoods or other places where innocent people congregate. In such situations, a decision maker fully expects a small number of civilians to be in or near the target area, but sometimes judges that destroying the target is essential to winning the war rapidly and will save many more lives in the future. This
objective then overrides his or her obligation to protect those civilian lives. (The moral and legal issues surrounding such situations will be discussed in the next section of the paper.) Such a wide range of possible causes and the roles of circumstance and errors can seemingly conspire to result in multiple incidences of civilian casualties that seem to defy attempts at their elimination.

It cannot be known with certainty which of these theoretical causes have resulted in incidents of civilian casualties and damage in Afghanistan during the United States air operations since October 2002. This is due in part to the wide variance in unofficial accountings of reported instances of civilian casualties and damage, and the limited official government information available. With OEF still an active military operation at the time of this writing, the United States Government has released to the public no overall assessment and little official information concerning the impact of specific air strikes on Afghan civilians. A United States Central Command news release in March 2002 provided the status of ten incidents since the start of OEF that the four-star combatant commander had determined required review. Of these, only two were associated with possible incidents of collateral casualties and damage due to air strikes. The command did conduct an investigation of the Deh Rawod incident described in the opening lines of this paper. The majority of the report is classified, although the command did release an unclassified summary.

With regard to a broad picture of the overall number of unintended civilian deaths in Afghanistan, the Department of Defense has maintained the position that it has no estimated total, and that nearly insurmountable challenges block them from obtaining all the facts needed to generate an estimate. Indeed, there are numerous and significant obstacles to ascertaining the actual harm to civilians resulting from an air strike. Frightened survivors may misperceive or exaggerate facts in their recounting of the incident, injured people may be quickly moved to obtain medical care, and human remains may be rapidly buried, as mentioned in the excerpt from the military report on Deh Rawod in Part 1. The immediate location of the attack and the area surrounding it may remain a highly dangerous and chaotic environment for a lengthy period. In addition, local government reports may be tainted by dishonest intent or poor investigation capabilities and techniques.

Most of the available reports of instances of undesired civilian casualties and damage in OEF have come from non-governmental organizations and media sources. The United States Government has not corroborated these reports, which provide varying perspectives on the suffering of innocents in the course of this war. Some of these reports have been compiled by non-governmental researchers, using varying criteria for determining the trustworthiness of the information they were able to find. They have produced estimates of 1300 to 2700 civilian deaths resulting from both ground and air operations during the first three months of OEF, the most intense period of military air attacks, and do not include injuries or property damage. However, these estimates are of arguable validity. Separating fact from fiction can be very difficult and requires judgments by the compilers as to the likely veracity of each report. As Herold warns: “Counting is not value-free.” The task becomes even harder as distance and time separates the estimator from the incident.

Nevertheless, several media sources have generated estimates. The Boston Globe estimated in February 2002 that 1000 Afghan civilians had died as a result of air strikes up to that time. The New York Times reported in July 2002 that up to 400 civilians had died, based on the Times’ six-month review. This review included visits to eleven sites representing the principal locations that Afghans and human rights groups claimed were the sites of collateral deaths of civilians. The claims from Afghanistan of collateral casualties and damage continue: a provincial governor’s office reported the death of seventeen civilians, including women and children, on 12 February 2003. Another tragic accident occurred on 9 April 2003 when a bomb missed its intended target and landed on a house, killing eleven civilians. Some reports such as these can be based, at least in part, on rumor or deception, but their overall effect is sobering because, where they are factual, they point to incidents of personal tragedy affecting innocent lives.

Air Operations in Operation Enduring Freedom

The objectives regarding the protection of civilians during the war in Afghanistan were clearly stated from the outset. On the first day of air strikes, Secretary of Defense Donald Rumsfeld emphasized that United States military forces intended to attack only military targets. This objective and the corollary intent of minimizing loss of civilian lives was reiterated by President Bush in his remarks to the United Nations General Assembly the following month. This clear emphasis was complemented by the internal reputation that the United States Central Command already possessed within the military for paying particular attention to avoiding civilian casualties and damage.
In many ways, the air forces of the United States were better prepared in OEF than in any previous conflict to minimize collateral casualties and damage during their air attacks. Technological advances and new systems gave them more precise tools. The widespread and much heralded use of the Joint Defense Attack Munition (JDAM), initially unveiled during Operation Allied Force, the air war over Serbia, brought satellite-enhanced accuracy to the battlefield in a new way as these weapons penetrated smoke and clouds without loss of precision. The Department of Defense reports that fifty percent of the 21,000 bombs dropped during OEF through March 2002 were JDAMs or other precision munitions. This was a marked increase from the previous record of twenty-nine percent during the air war over Serbia, itself a three-fold increase over the 1991 Gulf War.

Partnered with the advantages of precision munitions were advances in intelligence, communications, and command and control. Unmanned aerial vehicles gave bird’s-eye views of target areas and instantaneously sent these pictures back over satellite links to command centers and aircrews in their aircraft —this “sensor-to-shooter” capability has been long awaited for the advantage it offers to crews in target recognition and situational awareness. The main command center for the air war was known as the Combined Air Operations Center. From there each attack was planned and directed. This command center concept had matured since its first appearance during the 1991 Gulf War. By 2001, the center was far more capable of planning more precise strikes in advance, integrating incoming intelligence and reconnaissance information with ongoing air operations, and reacting swiftly and accurately to fleeting targets. In Afghanistan these improved capabilities were tested against both conventional forces and terrorist fighters in a conflict that differed in significant ways from a textbook battle against a traditional foe. Because of the surprise achieved by the terrorist attacks on September 11, 2001, OEF target development did not begin until days and weeks before the initial strikes. During initial fighting in Afghanistan, air forces would not be teamed with conventional infantry or armored forces, but with special operations teams working alongside indigenous fighters. Within one week of the start of the air war, the air forces had attacked most of the available, fixed targets. This meant that most air strikes after that point were “on call,” their crews often taking off without knowing their exact targets. Those targets were then relayed to them in the air, based on developments on the ground and reports from friendly ground forces or detections by intelligence sources. This meant that the desired timeline between notification and “bombs on target” was sometimes very short, a condition created by both the shadowy nature of the al Qaeda and Taliban leadership and the power of new command, control, and intelligence capabilities. These conditions could only make the goal of striking only military targets an even more challenging objective.

9 United States Central Command, "Investigations of Civilian Casualties.”
13 Conetta, Operation Enduring Freedom, 2.
15 Conetta, Operation Enduring Freedom, 2, 5-6.
16 Herold, "Comment & Analysis."
21 Lane, "Few Civilian Casualties Expected."
24 Lane, " Few Civilian Casualties Expected."
26 United States Central Command, "News Release 02-03-09."
27 Wald, "Mitigating Human Suffering and Loss of Life During Military Operations."
As the second portion of laying the necessary foundation for understanding this research, Part 3 overviews the moral and legal principles and standards that apply to efforts to minimize collateral casualties and damage.

**Foundational Principles and Standards**

**Ethics and the Just War Theory**

The field of ethics concerns itself with studying the general nature of morals and of specific moral choices made by people as they relate to other individuals.\(^1\) Coady helps to define the nature of ethics in the negative: ethics is not 1) essentially dictated by religion; 2) remote from life’s realities; 3) entirely relative to whatever culture or society in which one finds oneself; nor 4) concerned solely with inner, personal issues.\(^2\) He then goes on to emphasize that ethics is an essential component of making any significant decision. Normative ethics theories emphasize the role of virtues, intentions, rules, and consequences in making these determinations. Applied ethics seeks to employ these theories to resolve practical, controversial issues, and overlaps in some areas into the study of judgment and decision making. This paper will draw from all of these disciplines as it touches on the important moral principles regarding conduct in war and later seeks to apply these principles to decisions about potential collateral casualties and damage.

When it comes to a moral approach to limit the occasions and the brutalities of war, the “Just War” tradition of thought describes a middle ground in the theoretical spectrum between the extreme pacifist position that eschews all war on moral grounds and the extreme military realist position that rejects any role for morality in war, allowing that “anything goes” in order to end a war as quickly as possible. The basic concept of rights and wrongs in waging war can be traced back to antiquity,\(^3\) but the secular formulation of the Just War tradition, as it grew from its roots in the church, is commonly traced through Saint Augustine, Thomas Aquinas, Francisco de Vitoria, Francisco Suarez, and Hugo Grotius, among others.\(^4\) The theory can be functionally divided into two parts: guidance for determining the justice of going to war (\textit{jus ad bellum}) and principles for fighting justly within a war (\textit{jus in bello}). It is this latter portion that is more directly applicable to the matters of collateral casualties and damage and thus to this paper.

While there are many analyses of the \textit{jus in bello} portion of the modern-day embodiment of the Just War tradition, there are two principles that are commonly accepted as its classical basis: discrimination and proportionality of means.\(^5\) In the general case, discrimination means the separation of individuals into two categories: those liable to be justly attacked, and those who should be immune from attack. Johnson defines discrimination as avoiding direct, intentional harm to those who are not fighting—noncombatants.\(^6\) However, McMahan argues that the more proper criteria for discrimination may be moral responsibility and innocence, and not the presence or absence of a combatant uniform and gun.\(^7\) With regards to proportionality of means, Johnson describes it as the injunction to avoid needless destruction—disproportionate damage—in pursuit of a justified outcome.\(^8\) Walzer defines proportionality as the immediate and longer-term harm done by an act in war versus the contribution of that act to victory.\(^9\) Thus, although the foundations of \textit{jus in bello} may be described as resting on two principles, there are significant variations as to what those principles mean.

Some ethicists and philosophers highlight additional moral concepts within or underlying these two principles. The principle of humanity, or “human rights” as stated by Walzer, forms the moral rationale for the other principles and points to a fundamental dignity and importance in every individual that is resistant to the demands of war.\(^10\) In a similar vein, Hartle defines two humanitarian principles underlying all prohibitions against wrongful conduct in war: all persons are individuals deserving of respect, and all human suffering should be minimized.\(^11\) Christopher also sees two humanitarian precepts: it is wrong to intentionally harm innocent persons, and the individual is sometimes obligated to protect innocent persons from harm.\(^12\) McMahan and McKim incorporate the concepts of humanity and discrimination into a doctrine called “priority of the innocent” that requires priority of consideration be given to the interests of those who are morally innocent of responsibility.\(^13\) They see discrimination’s strong constraint against intentionally harming the innocent as a corollary of this doctrine. McMahan and McKim also define a principle of “minimal force,” specifying the obligation to use no more force than is necessary to achieve a legitimate military aim.\(^14\) This principle is intended to not only prevent harm to innocent civilians but also to preclude excessive harm to combatants. While the positions staked out by these
modern-day scholars raise various points of view, they all highlight that humanitarian principles are central to the morality of the Just War tradition.

In simple cases, the application of the Just War tradition may seem straightforward. One uncomplicated example would be where a military target is far removed from the civilian population, the target is clearly essential to the enemy’s war effort, and an attack option exists that is appropriate for achieving legitimate military objectives. However, simple cases are infrequently found on the battlefield. One difficult category of cases is well established in the Just War body of literature as falling under the doctrine of principle of “double effect.”

In general, the term “double effect” emphasizes that a single action taken with good intent can have both good and bad consequences—the good effects are fully intended while the bad effects are foreseen but unintended. In the case of war, this doctrine maintains that harm to innocent civilians can be unintended, foreseeable, and morally allowable under certain conditions. Sometimes, military planners face a situation in which they cannot expect to successfully discriminate between a target that is deemed militarily necessary and some number of civilian persons that would normally be immune from harm. In striking such a target, the planners could fully expect to achieve the good effect of disabling or destroying the military target, while simultaneously engaging in the bad effect of consequentially harming innocent people or their property. What should military personnel do when faced with such a quandary? Using the doctrine of double effect, decision makers are traditionally expected to only proceed with the attack if: 1) the act is a legitimate act of war; 2) the direct effect (destroying the military target) is morally acceptable; 3) the intention of the commander is good—in other words, the bad effect (harming the civilians) is not one of his objectives nor a means to that objective; and 4) the good effect compensates for the bad effect under the proportionality principle.

These conditions still require tough judgment calls with respect to the intent of the decision maker and the relative values and risks of the anticipated good and bad effects. Intent is difficult to dissect in practice. Glover emphasizes that what is intended and what are foreseeable side effects are often not easily distinguished. To better ensure a defensible intention, Walzer specifies that decision makers must pursue a double intent instead of the single intent specified in the third condition of the double effect doctrine. Not only must decision makers not intend the harm to the innocent, but they must also seek to minimize harm, even at greater risk or cost to themselves. This emphasizes a “minimal harm” principle that further supports the humanitarian principles just discussed. As a test of both the purity of intent and the thoroughness of the proportionality assessments, Christopher adds the injunction to decision makers that they must be equally willing to exchange the same number of their own innocent civilians to achieve the good effect sought. This test would also serve to temper the tendency toward national partiality, what McMahon and McKim call “one of the central unresolved problems of the ethics of war.” They define national partiality as the strong tendency to believe that the interests of one’s compatriots matter more than the interests of “others,” independent of considerations of guilt or innocence. Such partiality could lead to the undervaluing of civilian noncombatants, regardless of their innocence, and impede a decision maker’s willingness to reduce the threat of harm to them, especially at the cost of increased risk to his or her own forces. McMahon and McKim do admit that some degree of national partiality may be permitted, or even required, in war. Nevertheless, they maintain that this reluctant permission should not be stretched into a license for much greater weight in moral considerations. Finally, McKeogh poses questions about the fourth condition of the double effect doctrine and the requirement to weigh the good and bad effect against each other. He reviews the arguments on both sides for a rough versus a precise balancing, and finds that neither is morally satisfactory. Therefore he concludes that the doctrine of double effect is open to abuse.

This very brief overview of some of the moral principles and issues related to the task of minimizing collateral casualties and damage provides a basic appreciation for the height and breadth of the moral expectations commensurate with such an undertaking. The Just War tradition seems to clearly recognize two roles for military members: warriors pursuing military objectives and protectors separating innocent civilians from harm. Neither role may be morally forsaken, although the tradition acknowledges that sometimes, with great reluctance and care, the role of warrior must take priority. Using only the broad moral principles of the Just War tradition, decision makers are equipped with general warnings to guard their intent, to value humanity in every form, to separate all civilians from harm, and to consider both the good and bad effects of their planned actions—along with the acknowledgement that all of these actions may be very difficult. However, Just War moral principles and doctrine provide few, if any, specific guidelines to help military decision makers evaluate and weigh alternative choices in the very chaotic environment of war. The next section will evaluate whether the translation of some of these principles into international law offers more specific assistance to the decision maker.
International Law

Law, a body of rules governing human affairs, is the next foundational component of the present work. One way of understanding the relationship between law and morality is through Fuller’s characterizations of law as the setting of a pointer on a scale between the morality of duty that recognizes the most obvious demands of social living, and the morality of aspiration that points to the highest reach of human ambition. He describes the morality of duty as the “blood cousin” of the judgment of law, which condemns individuals whose behavior falls below its standards, while also claiming that law calls individuals towards the heights of moral achievement. However, Fuller also holds that laws must be practical and are of no use if they are not enforceable or if they create significant new problems. This description of the moral-legal relationship represents only one side of a multi-faceted debate about the relationship of law and ethics, but it appears to clearly depict the consistency that one finds between the moral principles of Just War and the standards laid out in the laws governing behavior in war.

In order to limit the evils of war and to seek to protect its victims, the world looks to a body of international humanitarian law frequently referred to as the “law of war” or the “law of armed conflict.” It is commonly accepted that the legal standards associated with jus in bello are based largely on the concepts of the Just War tradition. While the majority of this body of law has historically been composed of international agreements, common practices of states (unwritten or “customary law”), and judicial rulings, three international treaties drawn up during the last century have documented the bulk of the legal standards in existence today. These documents are the Hague Conventions of 1907, the Four Geneva Conventions of 1949, and the 1977 Protocols to these Geneva Conventions. The first of these two protocols (hereafter, “Protocol I”) is of key interest when considering jus in bello matters and examining the legal standards set for the assessment of a possible target and the choice of the method by which to attack it. It should be noted that although the United States has not ratified Protocol I, it considers the vast majority of its regulations to be customary law and holds itself accountable to them.

Part IV, Section I of Protocol I addresses the need for protection of civilian persons and property from the effects of hostilities. Its ties to the principles of the Just War tradition are very clear. This portion of the protocol begins by labeling the principle of discrimination the “basic rule” and charging its parties as follows: “In order to ensure respect for and protection of the civilian population and civilian objects, the Parties to the conflict shall at all times distinguish between the civilian population and combatants and between civilian objects and military objectives and accordingly shall direct their operations only against military objectives.” The protocol then goes on to define rules for determining who are civilians and how they are to be protected, including the protection of objects, such as food stocks, which are indispensable for their survival. Within these rules are references to the principle of proportionality. Articles 50 and 57 both refer to the obligation to avoid incidental loss to civilian life, health, or property if such loss “would be excessive in relation to the concrete and direct military advantage anticipated.” But Article 57 goes on to limit the permissibility of actions under the principle of proportionality, emphasizing the need to always minimize any incidental civilian harm that cannot be avoided, switching to alternate targets if suitable and available, and providing advance warning of attack to civilians at risk, whenever circumstances permit. It further charges the signatories to “take all reasonable precautions to avoid losses of civilian lives and damage to civilian objects.” These rules coincide with Walzer’s double-intent standard and the principle of minimization of harm, although they stop short of Walzer’s charge to the combatant to assume additional risk if necessary to further reduce the potential harm to the innocent.

When writings on the law of war, especially those from military sources, discuss the underpinnings of these laws, they tend to mention three customary principles: military necessity, humanity, and chivalry, with preeminence given to military necessity. Roberts and Guelff point out that this triad, when held in appropriate balance, incorporates the principles of discrimination and proportionality. Chivalry, a code of honorable behavior largely between combatants, will not be discussed here because it is outside of the focus on effects of war on innocent civilians. In the current documents of the law of war, it is the Fourth Hague Convention that first defines its purpose in terms of military necessity: “to diminish the evils of war, as far as military requirements permit.” Military necessity is cited in the Nuremberg judgments as a key criterion for determining whether an act was a permissible act of war or a war crime. The United States Air Force operational law guide also calls military necessity the most basic of customary law principles in the law of war. That manual defines military necessity as the principle that permits combatants involved in armed conflict to use force or violence against persons, places, or objects whose subjugation or destruction is indispensable to securing the prompt submission of the enemy, with the least expenditure of resources. The Air Force provides further explanation in the form of four supporting elements:

1. Any force used must be regulated by the user;
2. Only force **necessary** to achieve as quickly as possible the partial or complete submission of the adversary is allowable;

3. The force used is **no greater in effect** than needed to achieve the prompt submission of the adversary; and

4. The force used is not **otherwise prohibited**. [emphases in original]\(^{36}\)

In describing the second customary legal principle, humanity, the Air Force categorizes it as implicitly contained within, and complementary to, military necessity. The guide’s definition of the principle of humanity adds a caveat of military necessity to Walzer’s “human rights” principle: “Grounded on a fundamental belief in the dignity and importance of each individual, humanity in aerial warfare forbids the infliction of suffering, injury or destruction not actually necessary for the accomplishment of legitimate military objectives.\(^{37}\)

While Roberts and Guelff consider the law of war to be a fine balance between the needs of military necessity and humanity, they also recognize grounds for criticism based on the competing purposes of the laws and reflecting tensions between considerations of humanity and military necessity.\(^ {38}\) Some others do see military necessity as a convenient excuse and unequal partner in questions concerning indirect and unintended harm to civilians. Wasserstrom argued that under the law of war what is militarily “necessary” easily becomes, in practice, what is militarily “useful,” and thus not a constraint at all. He goes on to say: “Here the governing principle is that it is legitimate, appropriate (and sometimes obligatory) to do almost anything to anybody, provided only that what is done is reasonably related to an important military objective. It is, in short, to permit almost all possible moral claims to be overridden by considerations of military utility.”\(^{39}\) Cohen stakes out a different position, writing: “The notion of ‘military necessity’ lends itself to abuse, but every use of it is not abusive. It is not being abused if the alternative is to ask more of troops than we have any right to ask of anyone or than anyone can deliver.”\(^ {40}\) He goes on to claim that the law of war implies no obligation on the part of the military to raise their level of risk, which is already high, in order to reduce the risk to innocent civilians. This position was the same as that shared in an October 2002 Air Force training lesson on the law of war.\(^ {41}\)

The legal community recognizes that the framework of the law of war leaves the military member many complexities in determining just what is considered proportional. The committee reviewing the North Atlantic Treaty Organization’s bombing campaign over Serbia for the International Criminal Tribunal for the Former Yugoslavia discussed this very problem in their formal report:

> The main problem with the principle of proportionality is not whether or not it exists but what it means and how it is to be applied. It is relatively simple to state that there must be an acceptable relation between the legitimate destructive effect and undesirable collateral effects. For example, bombing a refugee camp is obviously prohibited if its only military significance is that people in the camp are knitting socks for soldiers. Conversely, an air strike on an ammunition dump should not be prohibited merely because a farmer is plowing a field in the area. Unfortunately, most applications of the principle of proportionality are not quite so clear cut. It is much easier to formulate the principle of proportionality in general terms than it is to apply it to a particular set of circumstances because the comparison is often between unlike quantities and values. One cannot easily assess the value of innocent human lives as opposed to capturing a particular military objective.\(^ {42}\)

The report goes on to list some of the questions that remain even after one has decided to apply the principle of proportionality:

1. What are the relative values to be assigned to the military advantage gained and the injury to non-combatants and or the damage to civilian objects?

2. What do you include or exclude in totaling your sums?

3. What is the standard of measurement in time or space? and

4. To what extent is a military commander obligated to expose his own forces to danger in order to limit civilian casualties or damage to civilian objects?\(^ {43}\)
As a result, the committee acknowledged that answers to these questions would necessarily vary from case to case and could differ depending on the experiences and the values of the decision maker. Similar disagreement is expected in cases involving “dual use” objects—those that have both civilian and military uses.\footnote{1}

The tribunal’s committee went on in their report to recommend that the proportionality of good and bad effects be judged based upon what the “reasonable commander” would decide.\footnote{44} The Air Force advises their legal counsels that the determination of proportionality is the sole responsibility of the commander for those decisions not retained by higher authority. All others involved in the planning process should offer their best advice. Legal advisors are told that the reasonable commander criterion has been generally satisfied if the commander “can clearly articulate in a reasonable manner what the military importance of the target is and why the anticipated civilian collateral injury and damage is outweighed by the military advantage to be gained.”\footnote{46}

Therefore, the international law of war is based on, but differs in significant ways from, some interpretations of the moral principles of the Just War tradition. The law of war defines military necessity and assigns it a strong position compared with that of innocent lives in the determination of proportionality. It also places certain limits on military necessity while defining a reasonable commander standard for judging the legality of those cases that do not clearly exceed those limits. Furthermore, it issues no call, as Walzer did, for military members to transfer risk from innocent civilians onto themselves in order to minimize harm. Altogether, these pragmatic standards may assist military decision makers to make judgments of relative risks to, and values of, progress toward victory and preservation of innocent human lives. Still, after applying the standards of legality in war, many of the moral quandaries are left unresolved. This issue will be revisited after a review of national values, the military ethic, and the targeting process.

\footnote{5} James Turner Johnson, Morality and Contemporary Warfare (New Haven: Yale University Press, 1999), 36.
\footnote{6} Johnson, Morality and Contemporary Warfare, 36.
\footnote{8} Johnson, Morality and Contemporary Warfare, 36, 126.
\footnote{9} Michael Walzer, Just and Unjust Wars: A Moral Argument with Historical Illustrations (Basic Books, 1977), 129.
\footnote{10} Walzer, Just and Unjust Wars, 135.
\footnote{12} Christopher, Ethics of War and Peace, 172.
\footnote{14} McMahan and McKim, "The Just War," 516-17.
\footnote{15} McKeogh, Innocent Civilians, 166.
\footnote{16} Walzer, Just and Unjust Wars, 153.
\footnote{17} Jonathan Glover, Humanity: A Moral History of the Twentieth Century (New Haven: Yale University Press, 2001), 84.
\footnote{18} Walzer, Just and Unjust Wars, 155.
\footnote{19} Christopher, Ethics of War and Peace, 104, 186.
\footnote{20} McMahan and McKim, "The Just War," 516.
\footnote{21} McMahan and McKim, "The Just War," 516.
\footnote{22} McKeogh, Innocent Civilians, 167-69.
\footnote{24} Fuller, The Morality of Law, 9, 42.
\footnote{25} Fuller, The Morality of Law, 130-33.
\footnote{26} Documents, 9.
\footnote{28} Nash, "The Laws of War," 14.
\footnote{29} Documents, 447.
\footnote{30} Documents, 449, 453.
31 Documents, 453.
32 Documents, 10.
33 Documents, 69.
34 Documents, 177.
38 Documents, 10, 29.
41 Joint Aerospace Operations Senior Staff Course 03-01, "Aerospace Law Lesson."
Given the moral principles and legal standards outlined above, it is important to explain why the United States seeks to uphold them and what steps it has taken to enable those planning its air strikes to implement them more successfully. This information, in conjunction with the moral and legal background just provided, will permit the analysis that follows in Part 5. While some information about organization and procedures in use in OEF has been described in media interviews and press conferences, the information presented here about targeting processes is also drawn from currently approved air operations planning doctrine and directives.

**National Humanitarian Values of the United States**

The humanitarian values that the United States holds as a nation are consistent with both the tenets of the Just War tradition and the law of war. The worth of human individuals is a pillar in the historical and present-day documents that guide the actions of the United States. The founding document of the United States, the Declaration of Independence, sets out life, liberty and the pursuit of happiness as inherent rights of all people. The fundamental document of United States law, the Constitution, sets out to secure justice, liberty, and equality as natural moral rights for the individual. The 2002 National Security Strategy of the United States of America calls for it to fight for human dignity, liberty, and justice as right and true principles for all people everywhere. In fact, the document states that the strategy it details must start from these core beliefs.

With respect to the legal standards of international law, the United States Constitution gives treaties made under the government’s authority the force of domestic law. The Department of Defense Law of War Program recognizes the force of applicable customary law as well. Furthermore, the government’s policy, set forth by the Chairman of the Joint Chiefs of Staff and applicable to all armed forces personnel, is that they must comply with the law of war in every armed conflict, independent of the form of the hostilities. The Law of War Program also dictates training in the law of war for every military member upon entry into the armed forces, annually, and at professional military schools. The Air Force Deputy Chief of Staff for Air and Space Operations summarized one benefit of this program in March 2002: “Continuous exposure breeds a culture sensitive to minimizing human suffering and loss.” It is clear that in the eyes of the military the United States has an unequivocal commitment to upholding the law of war.

**The Professional Military Ethic**

Hartle has composed a list of eight principles that represent the standards of personal behavior that military members feel they ought to meet. The Air Force, Army, and Navy and Marines each have their own list of character values to which they expect their members to always hold. The values called out by the individual military services are all represented in letter or in spirit by Hartle’s list, which follows:

*Professional soldiers*

1. **Accept service to country as their watchword and defense of the Constitution of the United States of America as their calling.**

2. **Place their duty first. They subordinate their personal interests to the requirements of their professional functions.**
3. Conduct themselves at all times as persons of honor whose integrity, loyalty, and courage are exemplary. Such qualities are essential on the battlefield if a military organization is to function effectively.

4. Develop and maintain the highest possible level of professional knowledge and skill. To do less is to fail to meet their obligations to the country, the profession, and fellow soldiers.

5. Take full responsibility for the manner in which their orders are carried out.

6. Promote and safeguard, within the context of mission accomplishment, the welfare of their subordinates as persons, not merely as soldiers.

7. Conform strictly to the principle that subordinates the military to civilian authority. They do not involve themselves or their subordinates in domestic politics beyond the exercise of basic civil rights.

8. Adhere to the laws of war and the regulations of their service in performing their professional functions.  

What is perhaps most noticeable about these principles is that they do not overtly mention either the humanitarian or the military objectives laid out in the previous discussion of decisions of proportionality. While the elements of the military ethic may be assumed to be primarily applicable to the military’s task of application of force, they also apply to the task of separating innocent civilians from harm, as specifically directed by the eighth principle pointing to the international law of war. The military ethic will be further discussed in Part 7.

The Targeting Process

Every person who participates in the process of planning air strike targets is clearly charged with understanding and upholding the applicable law of war. This includes all military members from the most senior commander to the lowest ranking intelligence imagery analyst. The multidisciplinary process that they follow is known as the “targeting cycle.” It is focused by the objectives passed through the military commander and is designed to achieve specific effects with minimum risk, time, and resources. The team that implements the process consists of members from all the military services, representing specialties in command and control, intelligence, weapons, law, strategy, and tactics—all organized under an air-component commander who reports directly to the commanding general. They all “run the cycle” for targets that are planned well in advance and for those that appear unexpectedly, requiring commanders to strike quickly. In the latter case, the cycle can be highly modified depending on the level of risk that the commander is willing to accept. The following sections will highlight key portions and aspects of the process: objectives and guidance, the role of legal advisors, the targeting process, and determination of potential collateral effects.

Objectives and Guidance

The targeting cycle begins with the commander’s objectives and guidance, which are based solidly on the broader guidance provided by his or her civilian leaders, the President and the Secretary of Defense. This ensures from the outset the close coupling of military and political goals. One form of guidance is known as the “rules of engagement.” For each conflict, the President and the Secretary of Defense approve rules of engagement to guide applications of force by the military. The purpose of these self-imposed rules is to define when, where, why, how, and against whom the military may use force and to ensure that those acts are, at all times, in pursuit of national policies and objectives. Rules of engagement may restrict certain targets, particular areas, or the use of specific weapons in order to gain or maintain public support, avoid escalating hostilities, or accomplish other objectives. These rules may also reemphasize portions of the law of war, as the summary statements from the rule set provided to United States soldiers in the 1991 Gulf War make clear: “Fight only combatants – Attack only military targets – Spare civilian persons and objects – Restrict destruction to what your mission requires.” Rules of engagement are normally considered classified information until sometime after a conflict has ended. For this reason, the United States Central Command has declined opportunities to speak publicly about the rules of engagement that apply in Afghanistan. However, it has been reported in the media that one rule in OEF restricts forces from damaging
bridges or road infrastructure in order to facilitate reconstruction efforts afterwards and maintain Afghan support for the war.\textsuperscript{22}

The scope and importance of the role played by rules of engagement in air warfare has grown significantly in recent years. A senior legal counsel for the Chairman of the Joint Chiefs of Staff estimates that nine out of ten restrictions on today’s battlefield are political versus legal.\textsuperscript{23} This means that the number and complexity of such restrictions can become unwieldy, difficult to track, and tricky to distribute when they change. Military manuals offer suggestions to help address these problems, encouraging close monitoring of dissemination, quality control to keep them as simple, transparent, and as seamless as possible, and methods for training staffs and aircrews.\textsuperscript{24}

**Role of Legal Advisors**

The Department of Defense mandates that legal advisors are to be immediately available at every level of command in order to ensure compliance with the law of war.\textsuperscript{25} The Air Force further directs that legal advisors be involved in every division and team implementing the targeting cycle and that they also advise on compliance with rules of engagement.\textsuperscript{26} However, the legal advisors’ primary task is to provide counsel on the compliance of operations planning and execution with the large and complex body of international law.\textsuperscript{27} Despite criticisms that it was the legal advisors making the “strike/no-strike” decision in certain cases in Afghanistan, \textsuperscript{28} the military commanders retain this responsibility, although they may rely heavily on the counsel of their legal advisors in doing so.\textsuperscript{29}

Indeed, it has been the experience of the Air Force legal community that commanders will initially be too cautious and pass up the opportunity for some attacks because of their lack of familiarity with the international law of war and its content on the legitimacy of targets.\textsuperscript{30} The Air Force defines a proactive role for legal advisors in its instructions for the operation of the Combined Air Operations Center: “to employ legal expertise and resources to control and exploit the legal environment across the full spectrum of operational missions.”\textsuperscript{31} While taking their role in minimizing collateral casualties and damage very seriously, the Air Force legal community believes that overly restrictive constraints on targeting will end up prolonging suffering by extending the war and delaying victory.\textsuperscript{32} Additionally, a legal advisor cannot always definitively state whether a target, or the means of attacking it, is legal under international law. This may leave military decision makers in what Schmitt calls the “warfighter’s dilemma.”\textsuperscript{33} This quandary arises from the vagueness of the law and the infinite possible variations of circumstances, combined with the inability of the decision makers’ staffs to reliably predict the exact outcomes of air strikes.

**Targeting Process**

Among the numerous activities that are part of the targeting cycle, of particular importance to this discussion are the approaches the planning staffs and decision makers use to research the target, determine the proper weapon with which to attack it, and assess the collateral effects that would likely occur in such an attack. The full resources of the United States intelligence community are available to help planners pull together as much information as needed to identify and characterize each target. Planners are encouraged by Joint doctrine to go outside their headquarters to access a broad spectrum of expertise and data to understand the target, its environs, and how it supports the adversary’s military operations.\textsuperscript{34} During operations in Afghanistan, daily conferences using secure video links or computer networks have brought together intelligence experts from around the world to review target information.\textsuperscript{35} Integral to this process of identifying targets is the certification that they are indeed legitimate targets under international law and the current rules of engagement.

Central to this process is also a clear understanding of the effects desired from striking a particular target or target set. “Effects-based targeting” is the name used by the United States military to describe its focus on understanding what specific results are desired from an attack. These results can range from complete destruction of the target to denial of access by the enemy for a limited time period. This analysis of effects is also required to assess delayed or displaced indirect consequences, to include unintended effects on civilian persons or objects.\textsuperscript{36} With these desired and undesired effects in mind, experts, called “weaponeers” by the Air Force, next begin work to find the optimal match between the target and weapon. United States Central Command and the Department of Defense recently outlined in a press conference some of the numerous parameters they can vary to optimize this match.\textsuperscript{37} Weaponeers consider early in this process whether they may be able to propose a non-lethal or non-kinetic means to achieve the required effect at the target. If using an explosive weapon, they could alter the azimuth from...
which the weapon approaches the target or the aim points on the target to direct fragments in, or away from, a particular direction. Similarly, less powerful bombs or fuses that delay detonation until after impact can help to limit the lethal radius of an attack. Carefully selecting the time of the attack can greatly impinge on both the desired effects and the undesired consequences of an attack. Finally, precision-guided weapons using laser designation or satellite signals offer greatly improved accuracy over the unguided, gravity-drop bombs.

The planning of a notional strike against military artillery pieces parked in an urban schoolyard brings together many of these elements. If the artillery was a sufficiently important target, weaponeers might choose one or more smaller laser-guided bombs over the larger satellite-guided JDAM in order to limit the radius of the blast. They could plan the strike to occur at night when students and teachers would not occupy the school and fewer passersby would be exposed. The planners might also select the direction of approach for the attacking aircraft and bombs so that weapons straying from their intended path would be less likely to strike homes in the area. Together, these specifications could greatly reduce the risk to the civilians in the target area while offering an excellent chance of achieved the desired effect of destroying the military targets.

**Determination of Potential Collateral Effects**

Running parallel to these target development and weaponeering tasks is a multiple-tier joint methodology for accessing the likelihood and amount of collateral casualties and damage. This approach was developed by the Joint Staff beginning in 1998 and used extensively in OEF. An iterative process, the tier assessment consists of four steps with a rating of high or low risk of collateral casualties and damage assigned at each step. The assessment begins with all the information gathered about the target and draws a ring around the target that would contain the effects of most conventional weapons in the United States inventory. If there are no collateral casualty or damage concerns, the target receives a rating of “low.” However, if there are issues raised, then the target proceeds to the next assessment tier. Here, weaponeers vary parameters like those discussed above to seek to avoid or limit the collateral effects. If they are unsuccessful, the target is modeled using a rapid, two-dimensional tool nicknamed “Bug Splat” after the pattern it produces, which resembles a squashed insect. This model, which shows the likely “footprint” of the weapon effects in the target area, can be run quickly, in only five to ten minutes. If this tool does not clear up any remaining collateral casualty or damage concerns, then a higher fidelity, three-dimensional model is used. It takes into account the physical characteristics of the structures involved and even the potential range of effects from windows shattering due to the attack. However, what this model offers in detail it requires in time—taking a minimum of four hours to return results, rendering it impractical for immediate decisions. If the collateral effects issues still remain after exhausting the resources of these assessments, the target is rated “high” and passed to the Secretary of Defense and President for a decision.

One parameter that has not been openly discussed by the military is the threshold of collateral casualty and damage issues that differentiates between ratings of “low” or “high.” A February 2003 media interview of Air Force officials provides some insight into the fact that a “low” rating does not equate to the absence of these collateral effects. In that interview, one official explained that in the event of war in Iraq the President would decide about striking any targets in which the estimates of civilian deaths exceeded “several dozen.” This threshold would likely vary depending on the conflict, the target, and the rules of engagement. The likelihood that such a limit exists is an issue that will be further discussed in Part 6.

The tier assessments are mathematical predictions and are intended to serve only as aids to commanders and the staff advising them. Yet, the tier assessment is a new, powerful tool that augments the target development and weaponeering skills so critical to the targeting process. Altogether, the military personnel, the process, and the technology have produced some tremendous successes in precision air strikes in Afghanistan. One example, briefed at a Pentagon press conference, occurred in downtown Kabul when a bomb was dropped on a building where an al Qaeda meeting was taking place. The location of the meeting was destroyed, but the adjacent buildings were left undamaged. Together, these tools, advisors, and ideals are additional inputs available to military decision makers faced with difficult decisions concerning potential collateral casualties and damage.

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PART 5
United States National Interests and Views of the International Community

Humanitarian tragedies created by incidents of collateral casualties and damage provide sufficient motivation in and of themselves to minimize their occurrence. However, political ramifications provide additional motivations to “do the right thing.”

The United States has acknowledged that all the training, efforts, expertise, and technological innovation described in Part 4 have not been sufficient to keep innocent people from dying as it wages war in Afghanistan. Yet this government and its military are confident of their intent, as reflected by the comments below:

The truth is, no military in the history of war has done more to protect the innocent than we have in Afghanistan. On many occasions, legitimate targets were bypassed because of potential collateral damage. The U.S. restrained its force well beyond that required by the law of armed conflict.

We know that victory will not come without a cost. War is ugly. It causes misery and suffering and death, and we see that every day. And brave people give their lives for this cause, and, needless to say, innocent bystanders can be caught in crossfire. …There are instances where in fact there are unintended effects of this conflict, and ordnance ends up where it should not. …That’s true of every conflict. As a nation that lost thousands of innocent civilians on September 11th, we understand what it means to lose fathers and mothers and brothers and sisters and sons and daughters. But let’s be clear: no nation in human history has done more to avoid civilian casualties than the United States has in this conflict. …Let there be no doubt; responsibility for every single casualty in this war, be they innocent Afghans or innocent Americans, rests at the feet of Taliban and Al Qaeda.

The United States has also stated clearly that the motive behind its fight against terrorism in Afghanistan was to protect American national interests and to secure peace and freedom for Afghanistan and the world. However, the international community has not fully agreed that the United States’ intentions and motivations are pure. Therefore, they have not always accepted the unavoidability of collateral casualties and damage in the war. The quotations above and the frequency with which their themes are repeated are evidence that the United States highly values the perception of others as an upright agent in world affairs. Despite that, some reports of collateral casualties and damage in Afghanistan have had untoward effects on the world’s perception of the United States.

At the end of the third week of the military operation in Afghanistan, the United States Department of State assessed that overseas media commentators were expressing a growing concern over the reports of Afghan civilian casualties. Many analysts were “alarmed and impatient” amid reports of civilian casualties and air strikes gone awry. Some concluded that the international coalition faced possible erosion due to public outcry against these consequences and the perceived lack of clear progress against al Qaeda and the Taliban at that time. Some European press labeled the air strikes “counterproductive” and determined that the results were not “proportional to the costs [and] risks.” Much of the Arab and Muslim media essentially accused the United States of reckless “savagery and barbarism,” although sometimes these allegations were based on the assumption that “thousands” of Afghan civilians had already died. The Department of Defense publicly asserted that many reports of civilian casualties were inflated or invented. This assertion has since been somewhat substantiated by many of the unofficial assessments like those mentioned in Part 2. In the fourth week of operations, Saudi Arabia spoke out on the side of the United States, announcing that it placed “nearly 100%” of the responsibility for the deaths of innocent Afghans on the leadership of the Taliban and Al Qaeda. In a matter of weeks, the Taliban and al Qaeda were scattered and with them went the focused criticism of the United States’ conduct of the war.

However, a more significant blow to international support for OEF came in the early morning hours of 1 July 2002, when the strikes in the Deh Rawod area of the Oruzgan Province occurred. These strikes, partially described by the excerpt of the government report that opened this paper, are reported by the New York Times to have killed at least 54 innocent villagers. This occurrence marked a distinct shift in world reaction to collateral casualties and damage in Afghanistan. Immediately after the attack, USA Today postulated that the incident could have “collateral damage” effects on the new administration of Afghanistan. The paper quoted General Wesley Clark, the now retired, former NATO commander during the war in Kosovo, as saying: “With each incident you build up resentments from the local population, which… play into the hands of your adversaries. Hamid Karzai has
shown broad shoulders so far in absorbing these incidents, but at some point the incidents themselves will discredit him." Indeed, President Karzai of Afghanistan issued a statement the following day demanding the United States use "all necessary means" to avoid further civilian casualties in his country. The United Nations spokesman in Kabul echoed this call as he emphasized that protection of civilian lives must become a primary concern in the war against terrorism. During the same timeframe, the Afghan foreign minister stated in an interview with the New York Times that his administration must be given a larger role in determining how air strikes would be conducted. He went on to say: "If things do not improve, well, I will certainly pray for the Americans and wish them success, but I will no longer be able to take part in this."

The New York Times also reported that the Deh Rawod incident had resulted in a focused anger in Afghanistan that was actively undermining the good will of the United States. In addition, the United Nations Mission in Kabul commissioned its own review of the attack, but the resulting report was never publicly released. Instead, it was provided directly to the Afghanistan and United States governments amidst claims that an interim version of the report alleged misconduct by the United States. Nevertheless, the Afghanistan president quickly announced his conviction that those claims were incorrect.

While feared political repercussions from the collateral casualties and damage at Deh Rawod did not fully mature, this incident illustrates the threat of political damage to national interests that can result from civilian deaths and injuries. Karzai’s government was already heavily criticized for other reasons. The additional blame for what was perceived as “wanton” civilian casualties could have delivered a significant setback to the United States’ objectives in that region and the overall War on Terrorism, and may have reshaped the world communities’ perception of America. A January 2003 news report highlighted another aspect of the continuing danger of anger over civilian casualties. This article, based on interviews with Afghan families and intelligence sources, asserted that al Qaeda is successfully drawing new, revenge-thirsty recruits from families who have suffered losses of innocents during OEF. Such a frightening development points urgently to the need to reduce potential political effects and yet another reason for the United States to continue its efforts to minimize collateral casualties and damage resulting from air strikes.

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5. United States Department of State, "Foreign Media Reaction."
6. United States Department of State, "Foreign Media Reaction."
11. Stone and Moniz, "Fallout from Afghan Incident."
14. Filkins, "Flaws in U.S. Air War."
The Decision Environment

The excellent hardware, software, and procedures available today provide options in the targeting process that were not available previously. Yet, the improvements have not altered the fact that, ultimately, United States military members are charged with the responsibility of advising and deciding rightly concerning the risk of collateral casualties and damage. Thus far, this paper has discussed multiple considerations that military decision makers and their staffs should consider in targeting: moral principles, legal standards, national humanitarian values, political objectives, the rules of engagement, and the professional military ethic. They also have legal advisors and a well-defined targeting process with built-in assessments of collateral effects to assist them. However, the “decision environment” in which these public servants find themselves is a very complex one with regard to the guidance and considerations they must weigh. It is also an environment filled with physical, mental, and emotional stress, in addition to what the military calls the “fog of war”—the uncertainty that results from the lack of adequate, correct information. To more fully understand the challenges faced by these military members, one must also explore the tensions and conflicts inherent in their considerations and the biases that may be present within the decision process.

Moral Tensions and Conflicts within the Targeting Process

Identifying moral tensions between the considerations in determining proportionality is the first step to further improving an understanding of the military member’s decision environment. This discussion begins with a brief exploration of the inherent tensions between the moral and legal principles overviewed in Part 3. These tensions will then be used to frame potential conflicts between considerations for military members in making targeting decisions.

The principle of proportionality discussed in Part 3 identified a primary tension between the obligation to achieve the political aims of the war and the obligation to protect the innocent in the course of fighting the war. This tension rises to the forefront of moral considerations in the targeting process. While it is true that the obligation of protecting the innocent functions as a constraint on the objective of achieving the political aims, it is such a strong constraint that it justifies nearly equal consideration. The resulting inherent tension becomes a full-blown conflict in the troublesome case of double effect when complete discrimination between the military target and civilians is not possible and harm to innocents is likely in the course of an attack. Neither the tension of proportionality nor the conflict of double effect is easily resolved or even greatly simplified by applying the concepts of Just War or the standards of the international law of war. However, these concepts and standards do describe the pieces that contribute to the tension and conflict and the basic relationships between those pieces.

For example, while the discussion of Just War explored the moral principle of humanity, it was the overview of international law that named its antagonist: military necessity. In determinations of proportionality, it is the principle of humanity that gives value to the innocent civilians whose lives must be weighed against the importance of the military target that is given value by its military necessity. This relationship is illustrated in Figure 1 by a balance in which the basic rule of discrimination supports the beam of proportionality. Attached to this beam are the principles of humanity and military necessity, in turn supporting their respective “objectives” of innocent civilians and the military target. Protecting the innocent civilians is the shield of the principle of minimal harm taken from Walzer’s ideas. Limiting the attack on the military target is the principle of minimal force. The analogy depicted in this illustration breaks down if one erroneously infers that anything done to achieve the desired effects on one side will automatically work against the objective on the other. In fact, the relationship between the two sides is far more complex than perhaps any figure can likely illustrate. Yet, the picture does clearly convey the tension or conflict that exists between these two objectives.

To further understand how these sometimes-competing objectives might be weighed in the mind of military decision makers, it is necessary to enumerate the factors that may emphasize those objectives. The United States national humanitarian values that perceive life, liberty, and justice as moral rights for all individuals are at work to protect innocent civilians. These national values may be further amplified by the personal values held by the decision maker. The strength of these values should not be underestimated, but neither should the support for attacking the military target brought on by the factors found in the concepts of military doctrine and strategy.
Military doctrine is the collected “best practices” of military operations, built up and tested through the long history of warfare. Nine concepts called the “principles of war” form the bedrock of this doctrine. Of these nine, the principles of mass, economy of force, security, and surprise stand out as particularly important considerations in situations where collateral casualties and damage are concerns. The principle of mass means that the employment of various weapons and techniques will be concentrated so they will decisively achieve the desired outcome. The principle of economy of force calls military leaders to be judicious in applying their forces and resources to ensure that sufficient amounts are available to achieve mass at the needed places and times. The principle of security means that risk will be managed prudently to reduce the vulnerability of one’s own forces to hostile acts or surprise and to preserve combat power. Finally, the principle of surprise allows the military to catch the enemy unprepared by striking at an unanticipated time or place, or in an unexpected manner.

Strategy can be understood as the means by which the objectives for the conflict will be achieved. The task of building a successful strategy is sometimes referred to as “operational art” and consists of multiple elements. Three elements of importance to this paper are leverage, timing, and tempo. Leverage speaks to attaining and maintaining the military advantage over the opponent. Timing and tempo both impact the placement and employment of forces on a schedule and at a pace that best exploits their capabilities while appearing unpredictable to the adversary and inhibiting the enemy’s action. These military concepts, along with others, must be considered by the military member who is in the position of offering advice or making decisions in the course of the targeting cycle.

These doctrinal and strategic concepts carry with them the emphasis provided by years of military field experience, professional military education, and individual professional thought and discussion. Also, many military members do not see these factors as completely inconsistent with the principle of humanity. As the Air Force reminds its legal advisors, victory must be valued as a humanitarian goal in itself, or the United States military should not be there in the first place. Indeed, the injunctions to seek mass, economy of force, security, and surprise, and to use, plan for, and act to maintain leverage, timing, and tempo are all intended to ensure victory. However, even if both the objectives of protecting civilians and attacking the military target are described in humanitarian terms, they remain differentiated by the timeframe of their humanitarian results. Civilian lives preserved by not attacking a target or attacking it less effectively will pay immediate humanitarian benefits that can be easily counted. Lives eventually saved by attacking a target and favorably and quickly ending the war are accrued over time, dependent on subsequent decisions and circumstances, and thus much more difficult to calculate.
Conflicts are also evident between the tenets of military strategy and doctrine and the principles of Just War and standards of the law of war. The act of issuing warnings to civilians, as conditionally directed by international law, can work against the military desire for surprise. The previously mentioned call by Walzer for the military to take on additional risk in order to lower the risk to innocents can be diametrically opposed to the principle of security that seeks to lower the risk to one’s own forces. The need to pull a high-demand, low-inventory weapon out of reserve and use it on a target because of collateral effects issues can run counter to the idea of economy of force. The desire to lower the destructive effects of an attack to reduce the risk to civilians can fly in the face of the need to mass effects on a critical military target. The additional time required searching for an attack option that sufficiently addresses concerns about collateral casualties and damage can derail a plan that seeks to orchestrate the timing and tempo of its operations in order to maintain leverage over the adversary. Similarly, this issue of time could also be used to drive the tier assessment process to achieve a prudential threshold of “acceptable” civilian casualties instead of a morally optimal minimization of harm to innocents.

**Gray Areas and Danger of Bias**

This exposition of the conflicts facing military decision makers further describes the murkiness of the moral gray area in which they find themselves. Schmitt describes this zone of grayness as existing “between unmistakably lawful and the unambiguously unlawful conduct.” Kidder quotes Lord Moulton, who called this region of human behavior “the domain of obedience to the unenforceable.” It is within this zone that determinations of proportionality must be made, determinations that McKeogh maintains are, by their nature, easily abused. For this reason, Schmitt asserts that angst over target selection is healthy, in that it fosters congruency and balance between the demands of law, policy, and effective conduct of combat operations. But such congruency and balance would be even more difficult to obtain if there are biases imbedded in the decision environment. McMahan and McKim warned of one such prejudice when they highlighted the issue of national partiality as previously discussed under the Just War moral tradition in Part 3. Such a bias could unfairly weight the objective valued by military necessity because the inherent value of innocent human lives at risk would be reduced by the degree of partiality shown to the members of the decision maker’s own country. Yet, as McMahan and McKim acknowledged, some amount of national partiality might even be permissible and even required in war. One possible reason for such permission is the need to promote and protect morale within the military ranks. However, such considerations of morale could rapidly pose moral problems if the loyalty between military members impeded their view of the strong moral claims of innocent civilians to life and justice. This issue emphasizes why biases in the targeting decision environment must be acknowledged in order to improve the opportunities to promote impartial judgment and “do the right thing.”

The academic discipline of decision analysis, based on the psychology of judgment and choice, offers valuable information about biases in a decision process. A rigorous application of this discipline is beyond the scope of this paper, but important insights of a general nature can assist in further understanding the military decision maker’s task. Fischhoff offers a rationale for why identifying biases is important: people will work harder on an important problem when they recognize both that judgment is central to the problem’s outcome and that bias could pose fallibilities in that judgment. As to where to look for biases, Hogarth asserts that they may correspond to what people can do well. This insight means that some of the potential for bias among decision makers in the military can point right back to the fundamentals of military doctrine and strategy. Collectively, these fundamentals speak to a knowledge base with which military decision makers are comfortable and skilled—what they “do well.” Individually, the applicable principles of war and of operational art previously listed could arguably be considered to naturally be possible biases toward the objective of military necessity for the military decision maker. These would compound the potential bias of national partiality already identified as favoring that same objective. Recalling the Air Force observations mentioned in Part 4 that new commanders tend to err on the side of being overly cautious and bypassing “legal” targets, the possible biases towards the humanitarian concerns could be said to include both national and personal humanitarian values.

Figure 2 depicts this murky environment as a moral “decision space” in which the risk to the objectives in conflict within the proportionality decision is shown on each axis. The ideal solution, posing least risk to both the protection of innocents and the achievement of war objectives is a single point in the upper right-hand corner of the space. Pushing toward this ideal is the military member’s dual moral roles as described at the end of Part 3: warrior and protector. All other decisions fall elsewhere in the space, favoring one objective over the other, increasing the risk to one or both objectives, or some combination of these effects. Opposing efforts to achieve these two objectives is physical, mental, and emotional stress, as well as the “fog of war.” The decision makers’ biases work to skew the decision to one objective or the other.
The graphic is not intended to judge what is a bad or good proportionality decision, but simply to identify more clearly the competing objectives, the relative risks, and the factors potentially weighting or biasing the decision toward one objective or the other. Describing the decision environment in this way is only the first step toward offering the military decision makers better moral decision support in the midst of their warfighter’s dilemma.

4 Schmitt, "Law, Policy, Ethics," 117.
7 Schmitt, "Law, Policy, Ethics," 114.
PART 7

Moral Decision Support for the Warfighter

Given the difficulties of the proportionality decision that are still left unanswered by the approaches thus covered, it seems clear that military decision makers could benefit significantly from additional decision support targeted at these issues. Left unaddressed, biases could lead these military members directly into one of several traps in their moral thinking. It is important to outline some of the more likely pitfalls, and some current and new approaches to helping military members avoid them.

Obstacles to Moral Decision Making

The Josephson Institute has defined one set of common obstacles to moral decision making, of which three are particularly applicable to the targeting process. The first obstacle is a rationalization: “If it’s necessary, it’s moral.” In this case, the rationalization leads to the false assumption that military necessity breeds propriety. The second obstacle is the “false necessity trap,” in which necessity is treated as a fact versus an interpretation. Here the cost of further reducing collateral casualties is overestimated, while the cost of failing to do so is underestimated. The last obstacle is, “If its legal and permissible, it’s proper.” This is a rationalization that assumes that one may substitute legal requirements that set minimal behavior standards (such as in Fuller’s “morality of duty”) for personal moral judgment. While the necessary and legal option may indeed be an individual’s moral choice as well, the obstacles above point to possible pitfalls on the path to doing the right thing—pitfalls the military decision maker should be equipped to avoid.

Glover, in his moral and psychological review of significant acts of war in the last century, asserts that there are multiple dangers posed in the wartime environment to an individual’s two moral resources: human responses and moral identity. He assesses that the human responses of respect and sympathy are difficult to maintain at any significant strength in a war involving great distances between the decision makers and the attack. This long-range separation is an inherent in air strikes, and especially so for the planning staffs and senior leaders that prepare and send the aircraft on their missions. A reduction or absence of respect and sympathy echoes the warning of national partiality introduced in Part 3 and discussed in Part 6 as a source of bias. This threat to moral resources is particularly insidious because it is driven by an inherent characteristic of attack from the air—distance.

If human responses are so easily suppressed in attacks from the air, Glover maintains that moral identity can also be neutralized, but in complex ways along the same lines as Josephson Institute’s obstacles to moral decisions. Glover describes moral identity as the way that an individual cares about being one kind or a person or another. At the core of this identity are moral commitments, such as respect for loyalty or an abhorrence of cruelty. There are three ways that Glover specifies that the protections of moral identity can be eroded: moral inertia, fragmentation of responsibility, and the moral slide of precedents. First, institutional momentum can translate into moral inertia. This can occur when decisions are made and morally justified based on specific circumstances, yet are not reevaluated when those circumstances change. Within a targeting process, participants could find it much less troubling to their moral identity to continue the established targeting policy rather than to question it or to press for a new policy. Second, so many people can have a role in a decision that no one feels particularly responsible. While at first glance this mechanism seems inconsistent with the military’s defined role of “commander,” Glover provides an example in which even a past President of the United States felt that others in his administration dictated a portion of his options. Thus, the targeting process, headed by military commander and supported by a very large staff, might also be susceptible to this eroding influence. Third, successive decisions can slide by degrees from slight, but morally justifiable, harm to devastating impacts that never would have been countenanced if evaluated alone. Each successive targeting decision could establish a precedent that is, in turn, used to assist in justifying the next decision. While all of these three “neutralizers” can operate in any wartime decision environment, they would be particularly difficult to detect using current methods of decision support in those situations where war objectives and ideals are at risk.
Current Decision Support

Operating within this setting of conflicting principles and potential biases and working to oppose breakdowns in moral resources are three related mechanisms: the professional military ethic within each military member, the law of war training provided regularly to them, and the counsel available from military legal advisors. Together these mechanisms make similar contributions to the decision environment surrounding issues of collateral casualties and damage.

The professional military ethic as described by Hartle does not specifically mention either of the objectives held in tension under the concept of proportionality: the protection of innocents and the achieving military objectives. However, individual military members will not necessarily view the ethic’s principles as neutral or equally applicable to both the humanitarian and military necessities. For example, “do your duty” can be easily viewed as supporting either or both of these concerns. Yet, the professional military ethic does share a very clear tie to both the law of war training program and the role of military legal advisors: all are directly associated with the interpretation of the international law of war. Since it is the legal community in the military that interprets these laws and instructs other military members about them through the law of war training program, legal advisors play a particularly key role in this decision environment. How they interpret international law can have a significant effect on the actions and considerations considered “right” under the professional military ethic and within the law of war training program. Therefore, whatever role the collective legal advisors play in assisting decision makers to negotiate both the legal and moral issues inherent in the proportionality principle, it is likely to be strongly reflected in the implementation of the military ethic and training on the law of war. Yet despite their current and generally competent roles in moral issues, counseling on issues of morality that exceed legal and political guidance—those that lay in Moulton’s domain of the unenforceable—is not a principal, assigned duty for legal advisors in the targeting process. The primary expertise of these advisors is in legal matters.

Nevertheless, the inherent tensions and conflicts, the potential biases, and the possible obstacles to moral decisions in the targeting process are significant, but may be deemed manageable in the emotions, chaos, and stress of a war that the United States is winning. America has grown accustomed to the character and training of its military members enabling largely good and right decisions, but both America and its military have also become accustomed to victory. One question that cannot be answered with certainty is whether the level of preparation of military members for facing the altered character of moral challenges is adequate for war that they appear to be losing. The seemingly docile nature of the conflicts, biases, and obstacles discussed above could easily become more tyrannical in a conflict that is not going favorably and that may even appear to threaten the loss of the objectives for which the war is being fought. United States military doctrine recognizes multiple factors that have historically led to the commission of war crimes. Several of these conditions are consistent with wars that are difficult to fight and win: a high friendly losses; a high turnover rate in the decision-making hierarchy; the lack of a clearly defined adversary; and a high frustration level among military personnel. If such conditions have historically led to cases of moral failure, then careful consideration should be given to ways to counter morally corrosive effects that will threaten again in future conflicts.

The United States military also recognizes that combat operations can become much more morally challenging in coming years as adversaries increasingly try to take advantage of the fact that the United States military will always seek to comply with the law of war. Positioning high-value military targets in civilian neighborhoods is one form of this immoral and illegal tactic seen in several recent conflicts. An upsurge of such practices could place warriors in greater moral dilemmas than ever. In that case, reliance on current decision support resources that emphasize legal and political requirements may not be sufficient to fully meet the demands of morality.

New Approaches to Moral Decision Support

The first new step in guarding against the threat of unethical decisions is to acknowledge and address the possibilities of bias in the decision process. Determining what are biases and what are legitimate considerations requires some amount of personal moral examination. However, it may also be possible to use concepts from decision analysis to assist in guarding against prejudices in a more general way. Edwards and von Winterfeldt offer four strategies for de-biasing decision processes. These strategies are: 1) Warn of the problem; 2) Describe the problem; 3) Provide personalized feedback; 4) Train extensively. In addition, these authors also point to the importance of intellectual tools in de-biasing decision making. Together, these ideas offer opportunities to assist the military decision maker.
Beginning with the de-biasing strategies of warn, describe, and train, one can envision possible changes to the law of war training program and the real-time advice made available to decision makers in the course of making their judgments. Law of war training could be altered to include alerting military members to the factors that could bias their judgment in future proportionality decisions. These potential biases would not only be listed (“warn”), but also discussed in terms of how they relate to the often-opposing objectives of protecting innocents and achieving the war’s military aims (“describe”). The diagram of the Moral Decision-Space would serve as a training aid for these presentations. Case studies would be used in the training to provide important exposure to the complexity of the decision environment and the power of the potential biases. Reflection on cases from recent history would be particularly useful, especially if accompanied by feedback on the actual, known outcomes.

Such training could help in the period prior to actual military operations, but once the targeting cycle is in full swing for planning and execution, no decision maker will have the time to spend in a classroom or even individual training sessions. Here, the actions of warning, describing, and limited on-the-job training would have to fall to a trusted advisor or team of advisors skilled in the application of ethics and decision-making principles to real world situations. Schmitt agrees that there may be a role for ethical specialists in the targeting cycle. He describes the possible role of these moral advisors as working side-by-side with legal advisors toward the common goal of conducting operations rightly—neither unlawfully nor unethically. Thus both training and counsel from advisors would focus on the practical moral and decision-analysis aspects of the decision process. This type of collaboration could greatly benefit military members participating in the targeting cycle.

The last of Edwards and von Winterfeldt’s strategies, “Provide personalized feedback,” would require that the Department of Defense take a different position than that publicly acknowledged regarding post-strike fact-finding. As mentioned in Part 2, the United States Government has stated that it does not seek to comprehensively track collateral casualties and damage. This position is reflected in the unclassified Joint and Air Force directives that address combat assessment, the post-strike phase in which efforts are made to determine the weapon’s actual effects. The process of combat assessment seeks to determine whether the target must be struck again or whether effectiveness models and planning parameters require updating. These directives do not contain any mention of collateral casualty or damage assessment or reporting procedures.

Whether such assessments and reporting have already been directed and taken place within classified channels, or whether the Department of Defense must focus new effort in this area, these determinations would be absolutely essential to permit feedback to occur. Such an assessment has taken place in at least one high-profile incident during OEF. The United States military announced the morning after the air strikes on Deh Rawod that a fact-finding team consisting of military representatives and representatives of the Afghan government, the American embassy, and the media would be conducting an immediate on-site assessment. Making this type of information rapidly available whenever possible to the staff involved in the targeting cycle is critical to short-circuiting potential biases. Hogarth states in his study of “continuous processes” that feedback is central in aiding people to adapt to decision environments of this type. In particular, he highlights the importance of the speed and frequency at which the feedback becomes available, and the accuracy and trustworthiness of the information provided. In the midst of the furor of competing and conflicting considerations, the military decision maker deserves the benefit of the most accurate and timely feedback available concerning the effects of recent air strikes on innocent civilians.

Edwards and von Winterfeldt also assert that intellectual tools can play an important role in dispelling what they call “cognitive illusions.” Such tools exist in the area of applied ethics in the form of tests. One of the more common tests is known as the “Washington Post Test.” Hedhal advocates this test for use by military personnel because its emphasis on the public servant’s obligation to maintain the public’s trust. Implementing the test requires the users to ask themselves: “What decision would I make if I knew that my actions would be on the front page of tomorrow’s Washington Post?”

Another test, referenced in the literature, is called here the “virtual substitution test.” The basis for this tool was previously mentioned in Part 3 as Christopher enjoined decision makers not to strike a target and place innocent civilians at risk unless the decision makers were willing to substitute their own innocent civilians for those at risk. This tool would specifically guard against the bias of national partiality. Taking the tool to the next level, decision makers would virtually substitute civilians that the decision makers know personally (acquaintances, friends, family), in order to guard against other biases, such as insufficient time or resources that might unfairly weight the cause of military necessity. These biases could lead to premature conclusions that the military target is “worth” a certain number of civilian lives simply because the identities of the civilians were unknown to the decision maker. Kidder offers third tool, testing for “trilemma” options. This tool helps the decision maker faced with a moral
quandary by not forcing a choice between two similarly “right” options, but by prompting the question: “Is there a third way through this dilemma?” Military members using this tool would be acting responsibly by seeking a better way to meet both of the competing objectives in a proportionality decision. They might also be acting in accordance with Article 57 of Protocol I that enjoins military decision makers to consider alternate, suitable military targets if doing so will help minimize harm to innocent civilians. The “trilemma” tool along with the other strategies discussed here is overlaid in the moral decision-space depicted in Figure 3. There, they act against any prejudicial influence that may have improperly weighted the military target in the proportionality decision.

Figure 3. Anti-bias strategies overlaid on the Moral Decision-Space

The potential existence of these biases and the proffering of strategies to acknowledge and address them is not an assertion or inference that military members are weak in virtue. To the contrary, the senior leaders with which the author has personally served have been of outstanding moral character. However, the biases just identified are a natural product of the decision environment and the humanity of the decision makers. The combination of the pressures and high-stakes of the wartime decision environment, the moral-legal tensions and resulting conflicts, and the well-trained, but fallible, human beings making the decisions are unavoidable factors. It is precisely because these factors are inescapable that the human decision makers deserve the highest quality decision support that can be made available to them.

1 Michael Josephson, Making Ethical Decisions (Marina del Ray, California: Josephson Institute of Ethics, 2002), 27.
2 Glover, Humanity, 113-14.
3 Glover, Humanity, 114.
4 Glover, Humanity, 114.
6 Joint Staff, Joint Publication 3-06, III-8.


Joint Staff, Joint Publication 3-60, II-8 – II-10.


Hogarth, "Beyond Discrete Biases," 682.

Hogarth, "Beyond Discrete Biases," 701.


Kidder, Tough Choices, 185-86.
Some arguments can be justifiably made against the moral considerations advocated in Part 7. In particular, two major objections will be discussed here. Following these come several recommendations arising from the insights developed through this work and intended for consideration by senior defense policy makers.

**Counterpoints and Responses**

Possible problems are inherent in encouraging military members to go beyond legal and political checks to consider the role of morality in their recommendations and decisions. Criticism from unnamed “Air Force officials” has argued that both the complexity of approval processes and the weight given to avoiding civilian casualties were excessive and may have prolonged the war in Afghanistan. These officials pointed out that opportunities to strike suspicious, fleeting targets might have killed top al Qaeda and Taliban leaders within a month of the start of OEF and negated the need to introduce ground troops and expand the war. One officer is quoted as saying: “The whole issue of collateral damage pervaded every level of the operation. It is shocking, the degree to which collateral damage hamstrung the operation.” If indeed the additional moral considerations advocated by this paper would exacerbate this problem in the targeting process, some might believe they are not be worthwhile, as indicated in the following article.

In a recent professional journal, three authors formally responded to the objections of the unnamed Air Force officials quoted by Ricks. Each of the respondents disagreed with assertions that these efforts to avoid collateral casualties and damage were wrong. Schmitt argues that these unnamed officials had forgotten that war is a “delicate dance” involving politics, law, ethics, and combat effectiveness, among other factors. He maintains that complaints of excessive interference in the targeting approval process are rarely justified because the approval authorities must track risk of many types—not just military risk. Kashnikov, drawing from his knowledge of the Russian conflict in Chechnya, noted that the political restrictions and limitations, like those lamented by the unnamed Air Force officials, are what keep a limited conflict from sliding down the slippery slope into total war devoid of humanitarian concern. He also asserted that whenever humanitarian issues in war are determined by what the weapons technology is or is not capable of doing, then those fighting the war are on that slope. Westhusing emphasized the importance of decision makers seeing and understanding “the big picture” and taking into account not just military efficiency, but the potential costs of innocent deaths and the effect of the military action on Muslim opinion. Together, the three responses of Schmitt, Kashnikov, and Westhusing claim that there is far more at stake in the targeting process than hitting or missing the target. Their arguments support the claim of this paper that it is vitally important to prepare military decision makers morally as well as legally in order to address these decisions.

A second counterpoint to the inclusion of moral training is the argument that the legal standards of international law have been worked out to be reasonable and enforceable, and are sufficient without additional moral considerations. As mentioned in Part 3, Fuller saw a clear tie between morality and law, but advocated that law is only useful if it can be enforced without creating new problems. He argued that trying to set the “pointer” of law above the minimum standards of the morality of duty was commonly advocated, but a mistake. Cohen similarly argued that in very difficult situations there is only so much that people can be reasonably expected to do. He maintains that asking more than that is wrong. It seems certain that one result would be frustration and overload. Why should anyone propose further burdening military members with considerations beyond the legal ones?

The argument for “reasonableness” in the standards expected for military decision makers may hold for the legal thresholds of permissible behavior. Indeed, the recommendations stemming from this research do not propose changes to the law of war. But legal actions may not always be morally satisfactory ones and therefore this paper has focused on possible contributions from moral judgment and decision making. As Fuller himself said, laws “can create the conditions essential for a rational human existence. These are the necessary, but not the sufficient conditions for the achievement of that end.” Decision makers can and should be better informed of which moral conflicts exist in their decision environment, why they exist, and how their associated biases can be minimized. They should also be alerted to the potential of other traps in their moral thinking. This information will not alter the military members’ accountability under international law, but will better prepare them to address important moral issues within and beyond the legal dimensions of the dilemmas they must face.
Recommendations

The purpose of this discussion has not been to define what is *reasonable*, although that word is significant in the law of war. In Part 3 of this paper, the “reasonable commander” criterion was described as the legal standard for proportionality decisions. Article 57 of Protocol I enjoined the signatories to “take all reasonable precautions to avoid losses of civilian lives and damage to civilian objects.” However, this discussion has been focused on finding ways to help military decision makers and those who advise them to be better *able to reason* with moral matters firmly in mind. Making moral decisions can be likened to decision makers picking their way along a narrow, craggy ridgeline between two abysses. The following recommendations are intended to assist military decision makers and their staffs by working to identify the moral-equivalent of potholes, loose rocks, and blind alleys along that thin path and by providing the best preparation possible so these military members can traverse it successfully.

To this end, the Air Force, Joint Staff, or Office of the Secretary of Defense should convene an ethics advisory panel comprised of ethicists, legal counsels, specialists in judgment and decision making, and experts in targeting and command and control. Authorities in ethics, law, and judgment and decision making should be drawn from both the military sector and from the best-qualified scholars and practitioners in the civilian sector. This panel should formally review the moral aspects of the decision process embodied in the targeting cycle and the approach currently used to prepare participants in this process. They should begin by considering the recommendations listed here. The panel’s own expert recommendations would serve as the template for changes to better support the military decision makers and their staffs as they seek to minimize collateral casualties and damage and the negative effect of these occurrences on the national interests of the United States.

**Recommendation #1:** Create standardized “morality of war” training materials that clearly acknowledge the moral roots, especially the principle of humanity, behind the legal standards of international law. The training may be distinct from, but should be linked to, the law of war training program and should emphasize the following:

a. The moral force behind the dual roles of the military member in the targeting process: protectors separating innocent civilians from harm and warriors pursuing military objectives.

b. The conflicts between considerations in the targeting process and the potential biases of the decision makers. Particularly emphasize the threat of partiality in judgments that would prematurely favor military necessity over the lives of innocents.

c. The strategies available to check for, and work against, whatever biases may exist. These strategies would include moral advice, feedback, and tools or tests.

d. The possible pitfalls in moral thinking that pose direct threats to “right” targeting decisions. Drawing from the Josephson Institute, these include rationalization of necessity, false necessity, and rationalization of legality. Added by Glover are neutralization of human responses, moral inertia, fragmentation of responsibility, and the moral slide of precedents. Particularly pertinent to this recommendation, Glover emphasizes that moral identity is not a fixed resource, but can be strengthened through thought and discussion, both worthy objectives of the training proposed here.

e. Case studies from actual air strikes that capture the considerations at the time the decision was made, the rationale used to make the decision, and the outcome, to the extent it is known.

f. Accurate descriptions and photographs of the target areas after air strikes, highlighting not only the gun camera footage of bombs striking with amazing accuracy, but also including the unintended harm suffered by civilians (with Recommendation #2, below, making this information more easily available). This component of the training should be focused on helping airmen maintain the human responses of sympathy and respect that Glover warns are likely to be lost over time when attackers cannot see the direct results of their actions.

**Recommendation #2:** Dedicate United States Government resources to rapidly obtaining and integrating information associated with incidents of reported collateral casualties and damage. While a trustworthy picture of the harmful effects to civilians after such a strike will be difficult to obtain, these effects must be accurately characterized as soon as possible. This information should then be immediately provided to the military decision makers and their staffs for consideration in the ongoing targeting cycle. A group of specialized teams drawing from the Department of Defense, Department of State, and other government offices would likely be necessary to perform these fact-finding surveys. This task is so morally critical, that
if sufficient government resources cannot be found and dedicated to it, consideration should be given to
crafting workable partnerships with selected media and non-governmental organizations who also want to
determine the facts in these incidents, although they will arguably have different motivations for this quest.

**Recommendation #3**: Provide additional sources of expert ethics and judgment advice to the staffs and
commanders that implement the targeting cycle. Where the responsibility for targeting decisions rest with
the responsible commanders, they remain the determining authority for what resources they want to use in
making those decisions. However, the complex moral decision environment described here calls for the
availability of additional resources focused on the issues raised in this work.

Such a resource might be dedicated, trained experts assigned to full-time command and control staffs or
available to deploy when requested. These advisors should be provided specialized training in applied
ethics, judgment, and decision making—a distinctly different role from that formally assigned to the legal
advisors. This approach offers the primary advantage of advisors who are sensitized to the moral tensions
and conflicts in the targeting decision process and who are dedicated to watching out for threats to moral
decisions and helping decision makers avoid them. These ethics and judgment advisors would not supplant
the authority of the commander, but offer expert counsel just as legal advisors do. Such a dedicated source
of moral advice would be greatly appreciated in a future conflict that is not proceeding smoothly and poses
increasingly complex ethical dilemmas along with great pressure for moral compromise. The distinct
disadvantages of this approach of dedicated advisors are the hiring of additional staff and the creation of a
training program to equip them to offer well-founded and pertinent advice from these critical, but complex
perspectives.

An alternate approach that would help address these concerns would be enhancing and expanding the
training already provided to legal advisors and expanding their formally assigned duties beyond advising
on legal matters during targeting operations. While some legal advisors may already seek to fill this need,
the formalization of these duties would require additional training and education to standardize the
equipping of all the legal counsels. This would add additional strain to this already heavily burdened corps
of professionals and might compromise their legal advisory duties as moral considerations often lie beyond
the legal standards of behavior.

However this cadre of ethics and judgment advisors is formed, the Department of Defense could also use
them to oversee and help run the morality of war training program mentioned in the first recommendation
above.

In addition to these three recommendations, the current work has raised important questions that should be
investigated in future research. The first question arises from a need to better define the role of national partiality in
modern day warfare. How has that role changed in the past century? Also, what are morally permissible levels of
national partiality and why? A second question focuses further on the role of post-strike feedback. What are the
moral responsibilities of the United States Government to provide to the national or world populace an assessment
of collateral casualties and damage following an individual air strike or post conflict? The third issue is a more
thorough investigation of how to best accomplish additional moral training for military decision makers. What
would be effective, efficient, and feasible approaches and mechanisms that would produce useful knowledge and
practical skills in moral decision making in the course of planning air strikes?

The primary recommendations resulting from this work would not be easy or inexpensive to implement.
However, the moral force of the national values and military ethic of the United States, the international law of war,
and, most importantly, the lives of innocent civilians—wherever and whenever war is waged—all call for the careful
consideration of these insights and proposals. Principles and cautions from ethics and judgment and decision making
provide different and important lenses through which to view the very difficult issues posed in the targeting process.
More fully incorporating these concepts may contribute to better moral preparation of United States military
decision makers and, in the final analysis, may contribute to making wars of the future less costly in terms of
innocent lives.

1 Ricks, “Target Approval Delays,” 109.
2 Ricks, “Target Approval Delays,” 111.
3 Schmitt, "Law, Policy, Ethics," 122.
8 *Documents*, 453.


Chairman of the Joint Chiefs of Staff. Chairman of the Joint Chiefs of Staff Instruction 3121.01A: Standing Rules of Engagement for US Forces, 15 January 2000.

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Lt. Col Dwight A. Roblyer


The United States Constitution. Article VI, Clause 2, 1788.


