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**Epistemic Uncertainty:
A Problematic Component of Justifications for the Continued Use of Drone Strikes**

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Introduction:

The aim of this paper is to present an objection to justifications for the use of targeted strikes employed via unmanned aerial vehicles (UAVs), also referred to as drone strikes, by evaluating critical strike procedures in military operations abroad, and illuminating the problematic indeterminacy of the status of their continued use.

Data concerning the efficacy of drone strikes has been inconsistent and often contradictory across sources. The term 'efficacy' is primarily used to explain the ratio of combatants and noncombatants killed in a strike, and whether or not the strike eliminated its intended target. These strikes are intended to eliminate as many combatants as possible with minimal incidental damage, meaning that the *proportion* of innocent individuals killed as a result of a strike is an important factor in determining the success of the operation. Thus, a maximally efficacious strike would be a strike where all intended targets were eliminated successfully, and no civilians were harmed. However, this is most often not the case when assessing operations in which UAVs are used. Since drone strikes do in fact kill innocent civilians, it is necessary to develop adequate measures of efficacy in order to properly justify these deaths. In order to sufficiently evaluate this act, standards of assessment must be rigorous, and require findings that are reliable. The killing of innocent civilians is clearly an objectionable act, and therefore must be subjected to a high level of scrutiny in judgement. Without proper means of evaluation, the status of drone strikes is entirely indeterminate, which necessarily implies that justifications of the continued use of this tactic are insufficient.

I will proceed as follows. The first section of the paper will be dedicated to defining some essential guidelines related to unmanned strikes. This will include a brief discussion of both moral and legal standards of evaluation. The objective of this section is to provide solid footing on which to step forward in assessing the proper evaluation of these tactics. The second section will focus on the aspects of procedure that take place before a strike occurs. This will include a discussion concerning essential features of authorization protocol that are clearly problematic. The third section will focus on procedures that occur after a strike has occurred. This will include a discussion of outcome assessment, and how problematic post-strike procedures impact assessments of efficacy, which ultimately influence standards of authorization. The fourth section of the paper will focus on the inconsistent application of intelligence protocol. The aim of this section is to discuss the cyclical relationship between faulty intelligence and improper procedures of authorization and assessment. The discussion of procedures related to authorization, assessment, and intelligence represents a holistic evaluation of the distinct stages of drone operations, and seeks to illuminate the cyclical relationship between the three, as well as the problematic features of each stage that tend to obstruct the evaluation of drone strikes. The final section of the paper will be a conclusion discussing the inadequate evaluative techniques used to determine the efficacy of unmanned strikes, and the insufficient nature of justifications for the continued use of the tactic.

Definitions:

Defining the most essential characteristics of unmanned strikes is the first step in understanding the methods and implications of this lethal tactic, and it begins with grasping some restrictive guidelines relevant to the use of drones in military operations abroad. There are several sets of broad guidelines that are applicable when examining the use of drones, including both moral and legal considerations that tend to focus on protecting as many innocent lives as possible.

Normative considerations, such as the well-known doctrine of double effect, are primarily concerned with the amount of incidental harm to innocent individuals caused by the use of lethal force, and whether or not that exercise of force qualifies as a legitimate effort to eliminate enemy combatants. For the most part, these principles focus on the ideas of proportionality and intention, meaning that there is some acceptable amount of incidental harm that is permissible, assuming that the actions taken were intended to do good overall. Both intention and outcome are relevant in determining the normative status of actions, but there is much to be considered when evaluating the effects of military force. While the intention may be obviously good, such as intending to eliminate a threat in order to keep civilians safe, assessing the status of the specific action taken in order to eliminate that threat becomes difficult when the outcome involves innocent individuals being harmed or killed. The most widely accepted solution to this scenario utilizes the idea of proportionality, arguing that even if the action is intended to do good, the effects must be proportional. Thomas Aquinas argues that even when “proceeding from a good intention, an act may be rendered unlawful if it be

out of proportion to the end.”¹ This is to say that the harm caused by an act must be significantly outweighed by the proposed benefits of that act, and that this measurement rests on a defining proportion of harm to unharm.

Legal guidelines governing the use of force in armed conflict are not unlike normative standards, as they too rely on central considerations of intention and proportionality, both of which ultimately require a thorough understanding of the agents and consequences of certain acts. Defining the appropriate targets in a conflict is essential when evaluating practices related to engagement and assessment. Article 52 of Protocol I to the Geneva Conventions describes legitimate military targets as “those objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.”² This does seem to allow for the elimination of potential threats, but only insofar as the threat has been determined to pose legitimate danger to military personnel or civilians. International humanitarian law provides strict guidelines for defining combatants. Any individual who is not a combatant is considered a civilian, and is thus protected under international provisions “unless and for such time as they take a direct part in hostilities.”³ This is to say that a legitimate military target is an individual who either takes a direct part in hostilities, or whose neutralization would offer a definite military advantage. This is crucial in understanding how individuals are classified in war, and offers a basis for

¹ McIntyre, Alison. "Doctrine of Double Effect." *Stanford University*.

² Rule 52.2: "Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I)

³ Rule 51.3: Protocol I of the Geneva Conventions

determining the proportional effects of military operations. Accurately classifying combatants is essential in determining the status of military operations, as it ensures the lawful elimination of targets, and provides reliable measurements of effects to which standards of proportionality can be applied.

When assessing military necessity, international humanitarian law is chiefly concerned with the ideas of both distinction and proportionality. Under international humanitarian law, proportionality in the context of lethal force is defined in terms of harms that are considered *excessive*. The Rome Statute prohibits acts that cause incidental harms that are “clearly excessive in relation to the concrete and direct overall military advantage anticipated.”⁴ This requires an assessment of the anticipated harms, the anticipated military advantage, and whether the anticipated harms were clearly excessive in relation to the anticipated military advantage. This assessment is very similar to a determination of proportionality, and is applied in most cases. It is intuitive to say that any use of excessive lethal force is objectionable, but it is less obvious to discern what actions are deemed excessive. This holds true in the case of proportionality as well. It would appear that determining the status of acts would be quite simple if there were clear measurements useful in obtaining reliable determinations of proportionality. This is certainly true when the numbers are obvious, but this type of assessment fails to apply when the outcome is not fully understood. It is often impossible to determine the status of an act in the context of proportionality without fully understanding the scope of the effects. In order to understand how these

⁴ Article 8(2)(b)(iv): United Nations. "Rome Statute of the International Criminal Court."

standards of assessment apply to drone operations, it is necessary to look at features of strikes both before and after they take place.

Authorization:

The inability to adequately determine the status of drone strikes can be partially attributed to uncertain standards of operation authorization. Authorization involves a multi-step process of gathering data, submitting actionable intelligence for approval, and developing a strategy for potential targeting windows. The guidelines outlined in the Authorization to Use Military Force (AUMF)⁵ involve long chains of sequential approval necessary to determine the authorization status of a strike. The chain of command reaches all the way to the President of the United States, in an attempt to ensure that strikes are conducted with maximum oversight and attention to regulation. However, the problematic consequences of authorization are not as often the failure of the agents in command as they are the result of flawed regulations and standards. Guidelines in the AUMF effectively increase the likelihood of authorizing strikes that are based on inadequate information. The chief issues of guidelines outlined in the AUMF stem from inexact standards of targeting suitability.

Targeting suitability in the context of drone strikes is distinguished by indeterminate thresholds set forth in the Rules of Engagement (ROE) for unmanned aerial operations. Each facet of military operations abroad has its own ROE. For soldiers in direct contact with potentially threatening combatants, the protocol is commonly described as “shout, show, shove, shoot.” This involves directly assessing an individual, clearly displaying your intent to employ lethal force, and eliminating a target if they present a threat to your life. United States protocol, as well as guidelines set forth

⁵ ISR Task Force. "Small Footprint Operations 5/13."

by NATO, revolve around guidelines requiring combatants to act only in a defensive manner.⁶ This assessment of potentially threatening combatants is required in all aspects of warfare, including operations that involve the capture of high value individuals (HVIs). This is especially relevant when discussing drone strikes, as unmanned operations are typically focused on achieving the elimination of one or more HVI targets. While operations on the ground require direct assessments of target presence and civilian risk, unmanned strikes rely on obscure standards of 'low' collateral damage environment (CDE) and 'near certainty' of HVI presence.⁷ These standards of assessment, outlined in the AUMF for armed UAVs, allow for a considerable amount of judgment to be made by drone operators who are not adequately informed of the situation on the ground.

Specific guidelines for drone procedure outlined in the AUMF rely on standards that allow for a considerable amount of room in determining targeting window suitability. The standards of 'low' CDE and 'near certainty' of HVI presence require drone operators to make decisions that rely on inadequate information. While a portion of this information is the responsibility of intelligence operations, it is ultimately up to the pilot of the drone to decide whether or not the strike location is considered to be low CDE, and if they themselves are nearly certain that an HVI target is present. This is problematic, seeing as no drone operator can reasonably be expected to inerrantly determine the entire scope of effects of actioning their target, and if the individual they are targeting is actually the HVI they were after. Proper protocol ought to reduce the likelihood of

⁶ NATO. "NATO Legal Deskbook."

⁷ ISR Task Force. "Small Footprint Operations 5/13."

human error, while these procedures put more pressure on the operator of the drone. Requiring the pilot to conduct the ultimate assessment of CDE and HVI presence from 50,000 feet in the air increases the potential of causing incidental harm.

UAVs are incredibly advanced tools, but they are not infallible. Unmanned systems rely on communication signals that are periodically interrupted, causing pilots to “go blind” for several minutes at a time. This loss of control signal has contributed to a UAV accident rate 100 times greater than manned aircraft.⁸ Even when pilots aren’t blind, their vision of the target isn’t perfect. Optical systems onboard the MQ-1 Predator and MQ-9 Reaper drones provide images that are sometimes unclear, and identifying individuals is made especially difficult when viewing them from directly overhead.⁹ Drone operators’ imperfect view of the strike zone prohibits them from fully assessing the potential damage caused by a strike, and makes their determination of HVI presence unreliable. Decisions to kill, especially those that are almost certain to cause some level of incidental harm, should not be made using faulty information. Drone operators are significantly limited in their ability to assess the situation on the ground, and therefore should not be responsible for the ultimate determinations of CDE level and HVI presence. Current guidelines in the AUMF regarding ROE for drone operations require pilots to make decisions that rely on inadequate information, thus potentially increasing the likelihood of incidental harm.

The flawed set of AUMF guidelines outlining ROE for armed UAVs is a problematic feature of procedures implemented in determining the status of potential

⁸ Yochim, Jason "The Vulnerabilities of Unmanned Aircraft System Common Data Links to Electronic Attack."

⁹ Callam, Andrew. "Drone Wars: Armed Unmanned Aerial Vehicles."

targets. Authorization is determined by inexact standards that leave too much discretion to operators who are considerably limited in their abilities to properly assess potential outcomes and positively confirm target presence. The use of lethal force is only acceptable by standards of international law if it is used to eliminate a legitimate military target, and is proportional in its effects. Imprecise standards of targeting suitability effectively increase the likelihood of eliminating an excessive amount of individuals who do not take a direct part in hostilities. Procedures requiring decisive action to be taken by inadequately informed drone operators necessarily increase the potential for civilian harm. While it cannot be said that these guidelines are entirely to blame for the harm caused by UAV strikes, they are certainly a necessary consideration when attempting to determine the status of this use of lethal force. Conclusively, current guidelines of authorization and targeting suitability are inadequate in terms of optimally reducing the likelihood of civilian harm and ensuring the elimination of intended targets, but further considerations concerning the effects of drone strikes are necessary to determine the status of the continued use of this lethal tactic.

Assessment:

Problematic procedures of assessment significantly hinder the achievement of a comprehensive evaluation of drone strikes and the status of their continued use. The efficacy of drone strikes is currently determined by misrepresentative utilization of essential terminology, questionable identification of combatant individuals, and uncertain confirmation of target elimination. These missteps in assessing the outcomes of drone strikes produce figures that don't accurately measure the effects of strikes, meaning that any resulting evaluations of consequences are entirely unreliable. Misleading definitions of essential terminology lead to findings that misrepresent the status of individuals involved in armed conflict. Improper identification of combatant individuals leaves considerable room for innocent civilians to be considered enemies killed in action (EKIA) when investigating the effects of strikes. Uncertain confirmation of target elimination leads to uncertain knowledge concerning the perceived success of operations. Current techniques of outcome assessment are not able to accomplish a satisfactory evaluation of drone strikes.

A fundamental application of misleading terminology is the use of the word 'imminent' in the context of military operations abroad. Imminent is typically used to describe events that are either "happening very soon," or are "about to happen."¹⁰ While every source will define this term with a sense of immediacy and urgency, the Obama Administration has released a different interpretation that seems to contradict what any dictionary will offer. According to the Administration, as outlined in a white paper from

¹⁰ Merriam-Webster: [Imminent](#)

the Department of Justice, “an ‘imminent’ threat of violent attack against the United States does not require the United States to have clear evidence that a specific attack on U.S. persons will take place in the immediate future.”¹¹ This implies that even if there isn’t clear evidence that an individual is an immediate threat, it is permissible to treat that individual as if they posed serious danger to the American people. This arguably implies that everyone poses an imminent threat of attack against the United States. This yields an incredibly low standard for who could potentially be considered a target, and could justify the killing of a wide range of individuals. The Obama Administration’s definition of an imminent threat leads to classifications that, when compounded with inexact thresholds of targeting suitability, result in the assassination of potentially innocent individuals. In terms of outcome assessment, the elimination of any individual who could potentially be considered an ‘imminent’ threat, would be qualified as a successful act. Using the broad reach of this interpretation of imminence presupposes an overwhelming likelihood of success in drone operations. This confuses the process of assessment, and obstructs impartiality in the investigation of strikes.

In order to determine and assess the proportionality of the effects of drone strikes, strike zones must be thoroughly investigated, but current procedures fail to produce a satisfactory analysis of the harms caused by drone strikes. Since the investigation of strike zones after a strike occurs typically reveals several more casualties than just the intended target, it is crucial to accurately identify those killed that weren’t the HVI. The AGM-114 Hellfire II, an air-to-surface missile developed for use in

¹¹ DOJ. "Department of Justice White Paper."

drones, is incredibly precise, but has a typical blast radius of approximately 65 feet (20 metres).¹² Even if a Hellfire missile is delivered with pinpoint accuracy, there will still be a considerable amount of collateral damage caused by its use.

The Department of Defense Office of Cost Assessment and Program Evaluation (CAPE) is responsible for the essential functions of cost assessment, which includes the task of outlining procedures for identifying individuals killed as the result of lethal strikes. This is a difficult task, especially when compounded with the complexities of using drones. UAVs are able to operate without the presence of troops on the ground, meaning there is no one to immediately move in and secure a strike zone to directly assess the effects of the strike after it occurs. Since drone operators are not always capable of being completely confident in their assessment of targets, much of the burden is left on assessment after a strike occurs, which is considerably limited in accurately identifying individuals after they have been hit with Hellfire missiles. The AGM-114 Hellfire II uses a Metal Augmented Charge (MAC) warhead that contains a thermobaric explosive fill designed to enhance the pressure, heat, and duration of the explosion.¹³ These weapons are exceptionally effective tools of destruction, and tend to obliterate targets almost entirely, often rendering their remains unrecognizable.

The level of destruction caused by drone strikes makes identifying victims a tricky task, which often leads to investigators making a their best guess about who the victims could be. It is intuitive to say that when a highly lethal explosive device is used to eliminate a single person, the amount of harm caused will exceed the death of just that

¹² Gregory, Derek. "Hellfire Missile."

¹³ "AGM-114N Metal Augmented Charge (MAC) Thermobaric Hellfire." globalsecurity.org.

one individual. This is why one of the most central procedures of cost assessment is the identification of individuals killed by strikes. Defining combatants and reliably confirming their elimination is central in assessing the effects of a strike. Without correctly determining the identities of individuals killed in strikes, there can be no way to adequately assess the effects of strikes. Current definitions used in cost assessment leave considerable room for civilians to be incorrectly labeled as combatants. Sources discussing cost assessment procedures report that this identification is ultimately determined by the the definitions of military-aged males (MAMs), and enemies killed in action (EKIA).¹⁴ “If there is no evidence that proves a person killed in a strike was either not a MAM, or was a MAM but not an unlawful enemy combatant, then there is no question, they label them EKIA.”¹⁵ This is to say that when there is uncertainty concerning the identities of people killed by strikes, investigators tend to err on the side of labeling individuals as combatants. This leads to a considerable portion of innocent civilians being labeled as combatants, thus misrepresenting the perceived efficacy of drone strikes. Similar issues tend to complicate the process of confirming the elimination of high value targets.

The difficulties in confirming the elimination of HVIs are well exemplified in the case of Qari Munib (aka Objective Lethal Burwyn), a Taliban subcommander operating in the Pech district of Kunar province. Munib was allegedly responsible for “directing attacks against Afghan and coalition security forces and coordinating the movement of

¹⁴ Becker, Jo, and Scott Shane. "Secret 'Kill List' Proves a Test of Obama's Principles and Will." *The New York Times*.

¹⁵ Devireaux, Ryan. "Manhunting in the Hindu Kush." *The Drone Papers*.

weapons and ammunition used for the attacks.”¹⁶ On October 30, 2012, a request for kinetic strike to eliminate Munib was approved as a part of Operation Haymaker with an intelligence confidence level close to 10, the highest rating of information certainty. Soon after he was determined to be a suitable target for strike, operations were initiated to locate and eliminate Munib. Less than a week after the mission was underway, an MQ-9 Reaper drone spotted an individual wearing a drab kameez¹⁷ and a white cap. Intelligence indicated that this individual was correlated to signals linked to Munib. The drone operator engaged the target, and watched as a group of people collected the individual’s remains after the dust had settled. The drone operator confirmed results of 1 EKIA, with confirmation that the target was Munib, the jackpot(JP), still pending.

Moments after the strike is actioned there are already two problematic aspects of the strike. First, the operator has confirmed the result of 1 EKIA without any direct investigation apart from classifying the target as a MAM spotted where Munib was known to stay. Second, the group of people who collected the remains of the target have just made the accurate identification of the individual impossible by tampering with the scene of the strike. This means that the task force behind the actioning of the strike is not entirely sure who they killed, and will likely never know. The one thing that is certain is that they did not kill Munib, as a NATO update released on November 9, 2012 reported that “an Afghan and coalition security force killed Taliban leader Qari Munib during a security operation in Kunar province.”¹⁸ The strike timeline makes no mention

¹⁶ "DoD News Article: Combined Force Arrests Haqqani Facilitator." *Defense.gov*.

¹⁷ A Kameez is an extremely common article of clothing worn in Pakistan. When worn by men, it can be described as a loose shirt that is very similar to a robe, typically worn with baggy Shalwar. The point of mentioning the prevalence of this clothing is to illuminate the potential problems in identifying a target based on such information.

¹⁸ "ISAF Joint Command Morning Operational Update." *Rs.nato.int*. NATO Resolute Support

of Afghan forces involved in the elimination of Qari Munib,¹⁹ meaning that one of the reports explaining the death of Munib must be mistaken.²⁰ The uncertain conditions of the drone operation make it entirely possible that the strike failed to JP, and that Afghan and coalition forces later eliminated Munib. If this is the case, then the identity of the individual killed in the strike is unknown. Identifying the target was entrusted to an inadequately informed pilot, and assessing the results were made impossible by a lack of troops in place. This case raises serious questions concerning the standards of confirmation in the targeted elimination of HVIs.

Current standards of cost assessment produce findings that confuse the perceived efficacy of drone strikes. While the findings of evaluative techniques are internally perceived as factual determinations of the effects of drone operations, there is actually a great deal of uncertainty in the process by which they are discovered. Misleading definitions of essential terminology, questionable identification of combatant individuals, and uncertain confirmation of target elimination all contribute to the confusion in assessing the effects of drone strikes. Since a comprehensive understanding of outcomes is necessary to determine the proportionality and scope of effects, confusion in the process of assessment makes an evaluation of the status of drone strikes impossible. If we cannot determine the effects of a practice, we cannot properly evaluate the status of the act. Current standards of cost assessment contribute to the uncertain status of drone strikes, and impact procedures related to both authorization and intelligence.

¹⁹ Qari Munib aka 'Lethal Burwyn': [Operation Haymaker](#), [Timeline of Operations](#)

²⁰ "Operation Haymaker." *The Drone Papers*.

Intelligence:

The current targeting model for US military and intelligence forces is known as *find, fix, finish, exploit, analyze, and disseminate* (F3EAD).²¹ This system relies on a powerful fusion of intelligence, surveillance, and reconnaissance (ISR) to *find* a target, and *fix* their exact location amongst civilian clutter using aerial precision geolocation (APG). This enables surgical precision when special operations forces (SOF) *finish* a target by expediently removing them from the battlefield, using the capture as an opportunity to gain information about the enemy network. *Exploit* is the main effort of F3EAD as it “leads to the finding, fixing, and finishing of the next target and the perpetuation of the cycle,” and “best fulfills the main purpose of intelligence, which is to enable ‘decision advantage’ for decision-makers at all levels.”²² The exploit phase is chiefly intended to produce actionable intelligence and prosecutorial evidence to continuously sustain the effective application of F3EAD. *The analyze* phase turns information gathered in the find, fix, finish, and exploit phases into intelligence that drives operations. After the analyze phase of F3EAD produces a comprehensive intelligence information report (IIR), it is crucial to distribute the findings to all forces involved in the area of operations (AO). The *disseminate* phase of the F3EAD relies on “a wider dissemination network than what has traditionally been practiced inside the United States intelligence community (USIC).”²³ Distributing intelligence to wide network

²¹ Faint, Charles, and Michael Harris. "F3EAD: Ops/Intel Fusion? Feeds? The SOF Targeting Process."

²² Faint and Harris: F3EAD

²³ Faint and Harris: F3EAD

of agencies, including those not traditionally associated with the IC, is hugely beneficial in the completion of objectives, and is essential in maximizing the success of F3EAD. The F3EAD process is intended to use a powerful fusion of ISR and SOF to locate and capture combatant targets, exploit and analyze actionable information, and disseminate intelligence findings in order to ensure efficacy, accuracy, and expediency in targeted operations.

The inconsistent application of intelligence protocol focused on capturing targets to obtain vital intelligence information is a problematic feature of procedures impacting both the authorization and assessment of drone strikes. The failure to consistently adhere to the guidelines set forth in the F3EAD system eliminates potential sources of actionable intelligence, disregards the need for a wide dissemination network, and perpetuates a cycle of uncertainty that ultimately affects authorization and assessment. Standards of capture feasibility promote the elimination of potential sources of actionable intelligence by declaring that remotely-located targets are to be killed rather than captured. The relative ease of eliminating a target via lethal drone strike includes the need to only share intelligence within the USIC, which keeps outside agencies uninformed of target information. Finally, the failure to appropriately utilize intelligence protocol designed to ensure a successful cycle of operations ultimately causes breakdowns in intelligence reporting, targeted operations, and authorization procedures. The unsatisfactory application of F3EAD produces problematic consequences concerning both the authorization and assessment of drone strikes.

Incompatible standards concerning the feasibility of capture encourage the elimination of potentially valuable sources of actionable intelligence. Guidelines set forth in the US Policy Standards and Procedures for the Use of Force in Counterterrorism Operations Outside the United States declare a “preference for capture,” but indicate that lethal force will be used to eliminate a threat when “capture is not feasible.”²⁴ The idea of *feasibility* is suspect, as it implies that US forces are in some way limited in their ability to engage the target. While there are a number of considerations in the determination of feasibility, the most essential factor is the legality of conducting US operations in foreign territories. Drone operations are legally troublesome not because they obviously violate the international rule of law, but because they “defy straightforward legal categorization.”²⁵ Current standards of international law rely on rules that do not explicitly discuss the use of UAVs.

Contrary to features of international law that directly apply to the deployment of troops, there is a great amount of uncertainty surrounding the legal status of drone strikes, especially those used in areas that are not considered active war zones. The US has effectively used this premise of uncertainty to advance the argument that the use of drones is often more feasible than deploying troops, especially in remote areas situated outside the typical area of operations of US military personnel. The unclear relevance of international law when assessing the use of drone strikes leaves the tactic almost entirely unregulated. Since there is no explicit legal grounding on which to dispute the use of drone strikes, their use is typically the most feasible option from a

²⁴ "U.S. Policy Standards and Procedures for the Use of Force in Counterterrorism Operations." *Whitehouse.gov*.

²⁵ Brooks, Rosa. "Drones and the International Rule of Law." *Georgetown University Law Center*.

legal standpoint. Additionally, drone operations are considerably less expensive than SOF capture missions, and pose no direct risk to US military personnel. These characteristics of the relative feasibility of drone strikes encourage strategic decisions that heavily favor their use. This leads to an overwhelming amount of decisions to simply eliminate HVIs, rather than capture them in an attempt to gather intelligence. Standards of feasibility lead to an increased reliance on drone strikes, thus encouraging the elimination of potentially valuable sources of actionable intelligence.

In addition to eliminating potential sources of intelligence, drone strikes are counterproductive in the development of a wide network of dissemination. By making unilateral decisions to eliminate HVIs and failing to distribute target information beyond the scope of the USIC, US drone operations counteract the development of collaborative systems of intelligence. A wide network of dissemination, as outlined in F3EAD, ensures the consistent success of both ISR and SOF. Without a wide network of viable intelligence, operations to secure objectives will suffer. Conversely, intelligence networks cannot grow without the use of reliable operative forces. The proper functioning of this strategic relationship depends on a comprehensive network of actionable intelligence that is shared amongst all agencies. US drone operations do not require cooperation with outside agencies, as they rely solely on the USIC. The chain of command for drone operations does not explicitly require any approval from outside agencies, so task forces are more likely to keep information internal by default.²⁶ The level of secrecy surrounding drone operations promotes decisions made without the

²⁶ ISR Task Force. "Small Footprint Operations 5/13."

proper use of a comprehensive interagency intelligence network and leads to a lack of distribution of information relevant to the achievement of joint objectives. When the resulting unilateral decision to action a target is made, outside agencies are kept in the dark, effectively limiting the distribution of valuable information. The development of a wide network of dissemination is essential in coordinating a consistently successful system of operations, and requires close cooperation with outside agencies. Failing to apply F3EAD standards of intelligence dissemination results in the increased likelihood of operational mistakes made as a result of faulty intelligence. The cyclical relationship between intelligence gathering and targeted operations ensures that a lack of cooperation with outside agencies will cause consistent procedural problems and operational failures.

The inconsistent application of intelligence protocol has problematic implications concerning the authorization procedures of drone strikes. The operational cycle of drone strike authorization and assessment relies on the application of intelligence procedures and findings. Intelligence information is the link between post-strike assessment and pre-strike authorization. The system by which these steps of operation connect is referred to as the intelligence process.²⁷ This process represents a cyclical relationship between gathering of intelligence, authorization of strikes, and evaluation of effects. The inadequate assessment of drone strike effects translates into faulty intelligence, which ultimately promotes the authorization of strikes based on insufficient data. Since each part of the process depends on the other steps involved, a mistake in any area would

²⁷ "Joint Intelligence." *Joint Publication*: Defense Technical Information Center.

have wide-reaching effects elsewhere. Inaccurate intelligence has great influence in promoting the authorization and actioning of a strike based on an incomplete understanding of the target. Intelligence gathering relies on post-strike investigation to evaluate the accuracy of intelligence information. When procedures of evaluation are designed to categorize the majority of unidentified victims as enemy combatants,²⁸ the efficacy of intelligence operations is falsely inflated. This misguided affirmation of intelligence efficacy leads to an increased dependence on faulty information, which in turn, causes more strikes to be authorized without proper consideration of the true nature of their effects. It is unclear where this cycle of uncertainty begins, but it is intuitively obvious that a sufficient evaluation of the status of drone strikes requires reformations in all stages of the process. Without a proper means of applying and evaluating intelligence procedures, it is impossible to sufficiently evaluate the status of drone strikes.

This discussion of intelligence procedure has produced three findings concerning the evaluation of the status of drone strikes. First, the contradictory nature of feasibility causes a widespread failure to consistently adhere to intelligence policies and guidelines, and promotes the elimination of potential sources of viable information. Second, the unilateral decision to eliminate targets is entirely counterproductive in the development of a wide network of intelligence dissemination. Third, faulty intelligence resulting from an inconsistent application of protocol has a close causal relationship with problematic procedures of authorization and assessment. These three features of

²⁸ Shane, Scott. "C.I.A. Is Disputed on Civilian Toll in Drone Strikes." *The New York Times*.

intelligence operations produce fundamental problems that further reveal the insufficient nature of current practices aimed at evaluating the status of drone strikes.

Conclusion:

In conclusion, I find that the indeterminate status of drone strikes necessarily implies the insufficient nature of attempts to justify the continued use of the tactic. Problematic features of drone policy and operation make it impossible to fully assess the effects of strikes, meaning that there is no reasonable way to conclusively determine the status of their continued use in the context of commonly accepted standards of ethical theory and international law. Inexact thresholds in authorization protocol promote the actioning of strikes that rely on uncertain determinations made by inadequately informed drone operators. Problematic procedures of cost assessment produce findings that do not accurately represent the effects of drone strikes. Intelligence operations complete a cycle of uncertainty in drone operations by failing to consistently adhere to protocol, thus producing faulty information that ultimately promotes the inappropriate authorization and assessment of strikes. Fundamental flaws in the systems of authorization, assessment, and intelligence make a sufficient evaluation of the use of drone strikes impossible to achieve. Without sufficient means to evaluate the tactic, the status of drone strikes must be found to be indeterminate, which necessarily implies that any attempt to justify their continued use is insufficient.

Glossary of Terms and Acronyms:

Note: Not all of these terms and acronyms are explicitly mentioned in the paper itself, but relevant sources of information frequently use this terminology when discussing drone operations. This is not an all-inclusive list of military terminology, but is useful in deciphering some of the esoteric documents that discuss the activities of the military and intelligence communities.

A

ABI

Activity-Based Intelligence

AF/AFG

Afghanistan

AFO

Advance Force Operations

AFRICOM

U.S. Africa Command

AGM-114 Hellfire II

Precision air to surface missile carried by both Predator and Reaper drones

ANSF

Afghan National Security Forces

AO

Area of Operations

AOR

Area of Responsibility

AQ

Al Qaeda

AQ FAC

Al Qaeda Facilitator

AQSL

Al Qaeda Senior Leadership

AP

Arabian Peninsula

APG

Aerial Precision Geolocation

AUMF

Authorization for Use of Military Force

B

BDA

Battle Damage Assessment

C

CAOC

Combined Air and Space Operations Center

CAP

Combat Air Patrol

CAPE

Department of Defense Office of Cost Assessment and Program Evaluation

CCMD

Combatant Command

CDE

Collateral Damage Environment

CELLEX

Cellular Exploitation

CF

Coalition Forces

CIVCAS

Civilian Casualties

CJSOTF

Combined Joint Special Operations Task Force

CNO

Computer Network Operations

COMINT

Communications Intelligence

CONOP

Concept of Operations

CoS

Chief of Station (CIA)

CT

Counterterrorism

D

DOD

Department of Defense

DOJ

Department of Justice

DOMEX

Document and Media Exploitation

E

EKIA

Enemy Killed in Action

EWIA

Enemy Wounded in Action

F

F3EAD

Find, Fix, Finish, Exploit, Analyze, Disseminate

FMV or HD FMV

Full Motion Video or High Definition Full Motion Video

FOB

Forward Operating Base

G

GCC

Geographic Combatant Command

GOCO

Government-Owned, Contractor-Operated

GSM

Global System for Mobile Communication

H

HN

Host Nation

HUMINT or HI

Human Intelligence

HVI

High-Value Individual

I

IC

Intelligence Community

IED

Improvised Explosive Device

IIR

Intelligence Information Report

IMINT

Imagery Intelligence

ISAF

International Security Assistance Force

IPB

Intelligence Preparation of the Battlespace

IPOE

Intelligence Preparation of the Operational Environment

ISR

Intelligence, Surveillance, and Reconnaissance

J

JP

Jackpot

JTL

Joint Target List

JWICS

Joint Worldwide Intelligence Communications System

JPEL

Joint Prioritized Effects List

L

LOG

Logistics

LEA

Law Enforcement Agency

M

MAC

Metal Augmented Charge

MAM

Military-Age Male

MQ-1

General Atomics Predator drone

MQ-9

General Atomics Reaper drone

N

NAI

Named Area of Interest

NMJCC

National Military Joint Command Center

NMJIC

National Military Joint Intelligence Center

O

OBJ

Objective

ODTAAC

Outside a Defined Theater of Active Armed Conflict

OPSEC

Operations Security

OSD

Office of Secretary of Defense

P

P-3

P-3 Orion (manned surveillance plane)

PID

Positive Identification

PKM

PK 7.62mm general-purpose machine gun

PTT COMINT

Push-to-Talk Communications Intelligence

POL

Pattern of Life

POTUS

President of the United States

R

ROE

Rules of Engagement

RPA

Remotely Piloted Aircraft (drone)

S

SECDEF

Secretary of Defense

SIGINT or SI

Signals Intelligence

SITREP

Situation Report

SME

Subject Matter Expert

SNA

Social Network Analysis

SOCOM

U.S. Special Operations Command

SOF

Special Operations Forces

I

TB

Taliban

TF

Task Force

TIR

Tactical Interrogation Report

U

UAV

Unmanned Aerial Vehicle (drone)

USIC

United States Intelligence Community

V

VBIED

Vehicle-Borne Improvised Explosive Device

VEO

Violent Extremist Organization

VID

Voice ID

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