From Fix to Finish:
The Impact of New Technologies on the Special Operations Approval Process

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From Fix to Finish
The Impact of New Technologies on the Special Operations Approval Process

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Master in Public Policy Candidates, 2016
John F. Kennedy School of Government, Harvard University

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Executive Summary

The United States is in danger of missing opportunities to counter nascent threats to national security. Allowing these threats to persist, by choosing not to act against them when there is an opportunity to do so, has detrimental effects on US national interests and threatens the safety of American citizens. Two case studies presented in this paper – the decisions not to take direct action Usama bin Laden in 1998 and Mokhtar Belmokhtar in 2003 – illustrate how severe the effects of missed opportunities can be. The decision not to act against bin Laden led to the largest terrorist attack in US history, trillions of dollars in spending, and the loss of thousands of lives in Afghanistan and Iraq. The decision not to act against Belmokhtar fostered his rise as a hostage-taker, allowing him to receive nearly a hundred million dollars in ransom payments. These funds contributed to the rise of al-Qaeda in the Islamic Maghreb (AQIM), now a prominent terrorist organization in North Africa.

Aside from illuminating how high the costs of inaction can be, these case studies establish an understanding of the factors that influence the decision to approve a special operation. They reveal that, in some instances, the options presented to counter emerging threats do not address some decision makers’ key concerns. This paper develops a Direct Action Decision Model to illustrate the relationship between the options presented and the tactical, strategic, and structural factors inherent in the decision environment.

This paper then argues the special operations direct action raid option, improved by new and emerging technologies would better address the critical factors weighed by decision makers. These technologies, including advanced body armor, improved stealth, and non-lethal weapons, would increase the likelihood of mission success, mitigate the risk to force, and reduce collateral damage. This will enhance the direct action capability of special operations, improve the menu of options presented to the decision maker, and make the case for action more compelling. In turn, this could result in the US seizing more opportunities to counter terrorist threats like bin Laden and Belmokhtar.

Beyond the case studies, this paper draws upon information gleaned through interviews from current and former senior government officials in order to develop an exhaustive list of factors that affect the decision to deter or defeat a threat outside of a declared combat zone. These factors fall under three categories: tactical, strategic, and structural. Tactical factors include risk to force, probability of mission success, collateral damage, logistical difficulties, and intelligence fidelity. Strategic factors include importance of the objective, domestic political concerns, national interests, international political perceptions, context, and legality. Structural factors include personalities, organizational stovepiping, and speed of approval. While each special operation is unique, and the
weight of these factors will vary for each decision, this list reveals what a decision maker considers when addressing a terrorist threat.

This paper demonstrates the important impact new technologies can have on the decision environment. These technologies will have a significant impact on many tactical-level factors. This, in turn, will mitigate concerns for some strategic and structural factors and allow the decision maker to focus more on the decision’s impact on national security interests, rather than on concerns about tactical risk.

Looking forward, terrorist organizations will pose an increasingly dangerous security threat to the US. Improving the decision maker’s menu of options by minimizing tactical risk through new technologies will be critical in preventing the rise of bin Laden or Belmohktar-like figures and reducing the capacity for terrorist organizations to operate. This is pivotal in ensuring the safety and security of the United States, and protecting its interests abroad.
Interviewees

Jeremy Bash – Former Chief of Staff for the Secretary of Defense and CIA Director
General (Ret.) James Cartwright – 8th Vice Chairman of the Joint Chiefs of Staff
Colonel Matt Braman – Special Asst to the Chief of Staff, Secretary of Defense
John Burnham – Dep Asst Secretary of Defense for Threat Reduction/Arms Control
Tom Donilon – Former National Security Advisor
Michèle Flournoy – Former Under Secretary of Defense for Policy
JSOC Science and Technology Subject Matter Experts
Juliette Kayyem – Former Asst Secretary for Intergovernmental Affairs at DHS
General (Ret.) James McCarthy – Former Deputy Commander of USEUCOM
Admiral (Ret.) William McRaven – 9th Commander of USSOCOM
Colonel (Ret.) Mark Mitchell – Former Director of Counterterrorism of the NSC
Michael Morell – Former Director of the CIA
Admiral (Ret.) Michael Mullen – 17th Chairman of the Joint Chiefs of Staff
Senior Administration Officials
SOCOM TALOS Representative
General (Ret.) Charles Wald – Former Deputy Commander of USEUCOM
Admiral (Ret.) James Winnefeld – 9th Vice Chairman of the Joint Chiefs of Staff
Vice Admiral (Ret.) James Wisecup – Director of CNO’s Strategic Studies Group
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Section I: Introduction

On September 10, 2001, former President Bill Clinton discussed with a group of businessmen an opportunity he had in 1998 to kill an emerging international terrorist leader known as Usama bin Laden. “I nearly got him,” President Clinton stated. Elaborating on his concerns of collateral damage, he explained, “And I could have killed him, but I would have had to destroy a little town called Kandahar in Afghanistan and kill 300 innocent women and children…And so I didn’t do it.”

The morning after Clinton made these comments, four US commercial airliners were hijacked by members of bin Laden’s al-Qaeda terrorist organization. Two were flown into the twin towers of the World Trade Center. A third flew into the west side of the Pentagon and the fourth crashed into a rural area in Pennsylvania. The result was the largest domestic terrorist attack on US soil, with over 3,000 civilian deaths. The subsequent war on terror would claim over 2,300 US servicemember lives. It would also cost over $680 billion in Afghanistan and over $800 billion in subsequent operations in Iraq, making the total costs of these wars between $1.6 and $6 trillion.

What factors influenced President Clinton’s decision to not kill bin Laden in 1998 when there was a chance to? Why did President Clinton choose not to utilize special operations forces to capture bin Laden? This paper examines the factors that influenced President Clinton’s decision to not conduct an airstrike or special operation against bin Laden in 1998, despite having the intelligence and capacity to do so. This paper will analyze this case study, along with a similar missed opportunity to kill or capture Mokhtar Belmokhtar in Mali, in an attempt to understand why decision makers are not seizing some opportunities to deter or defeat emerging threats through special operations. This paper will then analyze whether new technologies would impact the decision to use special operations against these terrorist threats.

Prior to the analysis of these case studies in Section V, this paper will provide amplifying information on military technologies, organizational processes, and special operations. In Section II, this paper will provide a brief background of the special operations direct action raid capability. In Section III, a special operations decision-making model will be developed, which can be utilized to illustrate how these technologies can impact the decision-making process. Section IV of this paper will then describe a framework for three emerging technological categories that, with further investment in research and development, should be available to special operations forces in the future, potentially providing improved and enhanced capabilities. Section VI will then examine the decision-making environment of the present, and Section VII will assess the impact of these special operations technologies on this current approval process. Finally, Section VIII will draw conclusions from this analysis.
There is perhaps no better time to analyze how the intersection of special operations and technology can impact military strategy. As President Obama noted in his 2015 National Security Strategy, the US has “shifted away from a model of fighting costly, large-scale ground wars in Iraq and Afghanistan in which the US – particularly our military – bore an enormous burden.” That burden has largely been shifted to the shoulders of a small portion of the US military: special operations forces and the military personnel that support their operations.

Although the US has increasingly relied on special operations forces to conduct counterterrorism operations with regional partners in Afghanistan, Iraq, Syria, and around the world, tactical factors (for example, collateral damage, intelligence fidelity, and risk to force), strategic factors (like domestic political concerns and national interests), and structural factors (such as personalities, speed of approval, and organizational stovepiping) have prevented decision makers from taking advantage of all opportunities to defeat or deter emerging security threats. There seems to be a mismatch between current military capabilities and the factors that a decision maker weighs when considering whether to approve a special operation. New technologies have the potential to address some of these factors.

Technology is a critical component of special operations in maintaining a competitive edge against various threats. If the US is going to continue to rely on special operations in its military policies and strategy, then it is wise to invest in technologies that best augment special operators and more precisely address the concerns that decision makers have with authorizing the use of special operations.

At a World Economic Forum dinner in September 2015, Secretary of Defense Ashton Carter said that in order to deal with the challenges posed by non-state actors and military competitors “we’re investing aggressively in innovation, pushing the envelope with research into new technologies and innovative ways to apply them.” In the case of special operations, understanding the tactical capabilities and added advantage of new technologies is important. Yet, understanding how the added capabilities will alter the decision environment and influence decision makers to defeat nascent national security threats through special operations, when they have the opportunity to do so, is perhaps more important. That is the focus of this paper.
Scope

• This paper is not a criticism of the decisions made by past public officials. It will make no normative claims as to whether a decision made by a public official was “good,” “bad,” “right,” or “wrong.” Instead, it will focus on why these decisions were made and what factors contributed to them. The goal of this paper is to understand how technology can address the factors that have prevented the authorization of special operations, not to criticize public officials for decisions that were made as a result of the decision environment.

• The case studies discussed in this paper are special operations conducted outside of declared combat zones. The American public and civilian and military leadership are generally more willing to accept risk in combat zones and the national sovereignty issues of US military presence in a foreign country are usually settled through a Status of Forces Agreement (SOFA). As such, this paper will focus on the most contentious special operations: those conducted outside of a combat zone.

• This paper will not offer a cost-benefit or investment analysis of specific special operations technology. Classification limitations, and the inability to quantify future “costs of inaction” make this impossible to do. Instead, the argument presented in this paper is one of efficacy – how impactful will these technologies be.

• There are other factors, besides technology, that could alter a decision maker’s risk calculus. The focus of this paper is only on the impact that new technologies might have on the decision-making process, not on the impacts that other factors – changing the ROEs, altering the political environment, or re-structuring the decision process – may have.

• The case studies discussed in this paper all fit a pattern in which the US had the intelligence and capacity to conduct a special operation but chose not to, allowing the threat to persist. As a result, there was a significant loss of life and resources. There is no way to prove the inherent counterfactuals of these case studies, but there is reasonable evidence to believe that, had it not been for the inaction or delay, the loss of life and resources could have been prevented or mitigated.

• The new technologies analyzed and applied in the case studies are those that would enhance special operators’ ability to conduct an operation given the same intelligence fidelity as in the initial context. In other words, the impact of the
technologies in this paper are only relevant to the actual operation, not to the intelligence-gathering that precedes any given operation. While the US should continue to develop intelligence-related technologies, the impact of these types of technologies are not included in the analysis of this paper.

- The efficacy of military technologies relies on an interaction with trained and experienced professionals. Any reference to the benefits and impact of these technologies carries the underlying assumption that there is an extensively trained and experienced operator behind it. The strength of the US military is its personnel, and the technologies discussed in this paper are ineffective without them.

Limitations

- This is an unclassified paper based all on open source information. All interviews were conducted in an unclassified setting (although the views and judgments of these interviewees were informed by classified information) and all research was garnered from unclassified resources. The majority of the analysis is qualitative and relies heavily on interviews that the authors conducted with key decision makers and advisors, current and former. The authors reached out to numerous Department of Defense (DOD), Central Intelligence Agency (CIA), Department of State, and White House officials to learn from their experiences and obtain different perspectives on the impact that these special operations technologies could have on decision-making. There is compelling quantitative classified data associated with the argument of this paper, but it will not be included in order to remain unclassified.

- One of the main criteria for choosing the case studies was the availability of unclassified information. This makes some of the case studies somewhat dated, as the details of current operations are kept secret in order to maintain operational security. Yet while technologies, processes, experiences, and capabilities have all changed over time, people have not. Many, though not all, of the key decision elements taken into account when considering approving a special operation are the same today as they were a decade ago. Therefore, they will likely be the same moving forward as well.

- The details and specifics of new and emerging special operations technologies are also classified, as they should be. As Secretary Carter alluded to, a vital way that the US can remain ahead of its enemies is through the development of advanced technologies with capabilities that outpace that of its enemy’s. As such, the technologies discussed in this paper are only discussed broadly with a focus on
their capabilities, avoiding any discussion on classified details. This is sufficient for the focus of this paper as the goal is to determine the impact of an added capability, not to discuss the specifics of the technology behind the capability.
Section II: Special Operations Direct Action Raid Capability

One of the principal missions of special operations is direct action. Special Operations Joint Publication No. 3-05 describes direct action raid operations as “short-duration strikes and other small-scale offensive actions conducted with specialized military capabilities to seize, destroy, capture, exploit, recover, or damage designated targets in hostile, denied, or diplomatically and/or politically sensitive environments.”

Many direct action raids have been successfully carried out by US special operations forces to capture or kill terrorists and enemies of the state who live in areas that lack a strong governing authority and the will or capability to capture or kill these individuals. These raids are often cloaked in secrecy, though some details of the operations may be released publically following the operation. Commonly, the US uses direct action raids to remove high-level terrorist leaders and, in doing so, thwart the terrorist organization’s ability to perform further acts of terrorism. The most notable example of a successful direct action raid with this effect was the 2011 direct action raid that resulted in the death of Usama bin Laden, founder and head of al-Qaeda.

There are both relative and absolute benefits to using special operations forces to conduct direct action raids. Relative benefits show that this capability has distinct benefits over another form of direct action strike, such as an airstrike. Absolute benefits are the overall effects achieved by direct action, through either a special operations direct action raid or an airstrike. Below is a brief list of these key benefits.

Relative Benefits

First, having a specially trained, discerning force on the ground that can assess and react to dynamic situations is extremely valuable. Through exhaustive training and preparation, special operations forces are able to minimize collateral damage by separating hostile threats from non-combatants and by delivering proportionate and precise force to neutralize threats. Situations can change quickly and intelligence is often imperfect. Having the ability to assess the situation surrounding an operation in-person can help to avoid or reduce casualties that an indiscriminate airstrike cannot. According to Michèle Flournoy, the former Undersecretary of Defense for Policy, “People may think drones are precise in that they can hit a targeted compound, but they are not always able to discriminate who is within the compound. So the additional measure of discrimination, the ability to determine who to kill and who not to, the ability to redirect the operation upon discovery of new facts on the ground, makes direct action by special operations forces a more flexible and nuanced option.”
Second, using precise, limited small-arms fire mitigates the potential for collateral damage around a potential target. The use of powerful missiles, like the AGM-114 Hellfire, with large blast radii can have unintended consequences, such as civilian deaths and damage to surrounding structures. Trained special operators, accurate and precise with small-arms fire, mitigate the potential for collateral damage. For instance, if the target of the direct action raid is located close to a hospital, using precise small-arms fire, rather than a missile or bomb is more likely to avoid irreparable damage to the hospital and casualties within the hospital. While operators are imperfect, they offer a much more precise option than an airstrike.

Third, having personnel on the ground allows one to be certain as to whether the operation was successful or not. Imperfect intelligence from drone surveillance footage overhead means that one cannot immediately confirm whether or not the target struck was the intended target. It can take months or years to confirm whether an intended target was killed in an airstrike. By having personnel on the ground, one can confirm the success of an operation and document the results of the operation through pictures and eyewitness statements. This can also be critical to international perception as the number of civilian deaths attributed to US airstrikes is debated and drones are unable to provide the proof and accuracy of a collateral damage estimate that a ground force can.

Fourth, in a direct action raid, special operations forces are able to capture the targeted individual for questioning and collect data and information (i.e., documents, phones, laptops, etc.) through sensitive site exploitation (SSE). Michèle Flournoy believes that SSE is the primary benefit of a direct action raid because it provides an intelligence multiplier effect wherein the intelligence taken off-target can lead to successful future operations against other high-level terrorist leaders and reveal terrorist plans and strategy. This cycle of the intelligence from SSE and interrogation leading to operations that garner more information was repeatedly used in Iraq and Afghanistan with impressive results. Michael Morell, former Director of the CIA, says, “There’s this cycle: You’d get a guy off the street at 11 o’clock at night; you’ve got his phone, you’ve got his computer, and you interrogate him, and you get five new targets out of that, that you action three hours later. There’s this amazing cycle that you get from doing that. Which is all why capture is much preferable to kill, in my view.” John Burnham, Deputy Assistant Secretary of Defense for Threat Reduction and Arms Control, noted that the benefits of capture offered through direct action raids go beyond the ability to provide more intelligence for future raids. These captures can ultimately lead to the ability to stop potential terrorist attacks in the US. “SOF [Special Operations Forces] can go places that the FBI can’t,” says Burnham. “[Special Operations Forces] can capture people and end up back in US federal district court.” This, in turn, results in some terrorists becoming cooperating witnesses and helping the FBI disrupt potential terrorist attacks on US soil.
Absolute Benefits

There are also important absolute benefits of using direct action operations (either a special operations direct action raid or airstrike). As an alternative to a full-scale counter narrative effort, the US may be able to successfully impact individual’s risk calculation for joining, remaining in, or assisting a terrorist organization. Such was the case in the 2015 direct action raid that killed Islamic State of Iraq and the Levant (ISIL) leader Abu Sayyaf. According to Juliette Kayyem, the former Assistant Secretary for Intergovernmental Affairs in the US Department of Homeland Security, one of the purposes of the Abu Sayyaf raid was to “mess with the heads of ISIS,” which she believes can be an effective US policy. “The US is better at messing with their minds than trying to change them,” she says.7

Second, repeatedly removing a terrorist organization’s leadership can be a long-term strategy for degrading and defeating a terrorist organization and preventing them from attacking abroad. Morell sees tremendous value in this strategy:

“You want to take that leadership off the table for three reasons: You want to take them off the table because they have to be replaced by somebody. And that person has a learning curve, and they may ultimately become more effective than the guy they replaced, but there is a period of time in which they will be absolutely less effective. Second reason you want to take them off the battlefield is because you want them to have to worry about their security. The more they worry about their security, the less time they have to do bad stuff. If you look at al-Qaeda in the FATA* man they had to worry about their security a lot, or AQAP in Yemen. And that is a really healthy thing. And then three is, to the extent that you can capture them, you get all that intel that you wouldn’t have otherwise...You have to do it quickly to take full advantage of the first reason, to keep everybody on their learning curve and not let anybody become really effective.”8

There is statistical evidence that supports this strategy and Morell’s claims. In “Does Decapitation Work? Assessing the Effectiveness of Leadership Targeting in Counterinsurgency Campaigns,” Patrick Johnston analyzes the consequences of successful and failed leadership decapitation strategies in military campaigns dating back to the mid-1970s. He finds that “neutralizing insurgent leaders has a substantively large and statistically significant effect on numerous metrics of countermilitancy effectiveness” and “removing insurgent leaders increases governments’ chances of defeating insurgencies, reduces insurgent attacks, and diminishes overall levels of violence.”9

* Federally Administered Tribal Areas in Pakistan
However, there are also potential relative disadvantages to direct action raids by special operations. First, there are national sovereignty issues and political risks associated with sending American military personnel to foreign countries, which may not align with US diplomatic efforts or public opinion. Second, depending on the situation, direct action raids can sometimes be more complex and take more time to conduct than an airstrike. Synchronizing the multiple elements and assets needed to safely and stealthily deliver special operators to a target area can be very complex, making an airstrike preferable. Third, according to Flournoy, the chief disadvantage of a direct action raid is “the human risk – it’s inherently more costly if something goes wrong. I think that is the main thing: you are putting more human beings at risk, and some of the best capability of the force.”10
Section III: Direct Action Decision Model

In order to fully understand how new and enhanced special operations capabilities can affect the decision to approve or disapprove a special operation, a clearer understanding of what this process looks like must be fully examined. This section will illustrate the avenue through which new and enhanced special operations technologies can alter a decision maker’s calculus in approving special operations. The “decision maker” as discussed throughout this paper is anyone who is ultimately approving or signing off on the special operation, such as the president, a Geographic Combatant Commander, or a senior Pentagon official. This section develops a hybrid model for decision-making. This model utilizes two models developed in *Essence of Decision: Explaining the Cuban Missile Crisis* by Graham Allison and Philip Zelikow, the Rational Actor Model and the Organizational Behavior Model, in addition to the “Find, Fix, and Finish” targeting model. In order to fully develop this model, each component is explained below.

Rational Actor Model

The Rational Actor model is perhaps the most popular model of decision-making in foreign affairs. As Allison and Zelikow write, this model is “ingrained in our way of thinking” when considering how decisions are made in foreign affairs.¹ Within this model, a decision maker makes a rational choice among various alternatives with regard to the consequences of these alternatives and with reference to specific objectives or goals.

There are four important elements to this model that are encapsulated in the previous sentence. The first is “goals and objectives,” which Allison and Zelikow believe to be the “interests and values of the agent.”² These are able to be translated into some sort of utility measurement and result in a ranking of each alternative relative to these criteria. Second is “alternatives:” these are the set of options (likely produced from the model below) which are presented to the decision maker. Third is “consequences,” both positive and negative, which go along with each alternative that a decision maker must consider. Last is “choice,” wherein the decision maker selects “that alternative whose consequences rank highest in the decision maker’s payoff function.”³ This resulting “choice” is rational because it is the “value-maximizing choice within specified constraints.”⁴

In the view of this model, “happenings in foreign affairs are conceived as actions chosen by the nation or national government. Governments select the action that will maximize strategic goals and objectives.”⁵ Thus, the “decider” is the national government, i.e., “the US chose to do the following.” Problems arise in the international
environment that must be addressed by the nation, and decisions are made in response to these problems. These decisions are then made rationally as described above.

Allison and Zelikow then suggest an important implication to this model: “An increase in the perceived costs of an alternative (a reduction in the value of the consequences that will follow from an action, or reduction in the probability of attaining fixed consequences) reduces the likelihood of that action being chosen.” The latter case is also true – a reduction in the perceived costs of an alternative necessarily increases the likelihood of that action being chosen. Thus, affecting the costs, risks, and consequences associated with an alternative can affect the probability that the nation, as a rational actor, will choose this model in response to any foreign policy decision. This suggests that the costs of any alternative, and changes to these costs, are vitally important in decision-making in foreign policy. Regarding the new technologies discussed in Section IV, this implies that their ability to alter the costs perceived by the decision maker, such as collateral damage, mission failure, or the loss of US operators, can result in different outcomes being made.

**Simplified Rational Actor Model**

**Organizational Behavior Model**

According to the Organizational Behavior model, decisions are made based on the menu of options that is presented by the organizations beneath the decision maker. As Allison and Zelikow write, “…existing organizational capacities for employing present physical assets constitute the range of effective choice open to government leaders.
confronted with any problem.” Organizations create capabilities and constrain the options within the decision environment. The capabilities and options of organizations are a result of rationally-formed and efficiency-seeking behaviors: “rules, norms, and routines,” that necessarily limit the choice set presented to the decision maker. These are learned behaviors: an organization has a niche skillset within the government, and these patterns of behavior are rewarded over time within the government as procedures, capacities, and culture of an organization are formed. Thus, organizations are likely to continually follow the same standard operating procedures and procure the same options over time.

**Simplified Organizational Process Model**

![Diagram of Organizational Process Model](image)

While organizational behavior tends to be fixed over time, and the resulting choice set presented in the decision environment also remains fixed, organizations can learn, change, and develop new capacities that can result in the re-shaping of the menu of options presented to a decision maker. Allison and Zelikow write that, “In response to nonstandard problems, organizations search and routines evolve, assimilating new situations with considerable skill…Such learning and change follow in large part from existing procedures, but marked changes in organizations do sometimes occur.” This evolution is the basis for the examination of the emerging special operations technologies discussed in Section IV. These technologies represent an opportunity for organizations (namely the DOD) to alter their behaviors, expand their capabilities, and increase the menu of options presented to decision makers.
The Organizational Behavior model notes that the evolution of the decision environment is often made bottom-up through organizational capacity, rather than top-down through directional mandates. Organizations’ new and expanded capabilities and options can have profound effects on how decisions are made in foreign affairs. As Allison and Zekow explain, in order to alter the decision environment, organizations must first provide the expanded capacities to do so:

“The existence of an organization with special capabilities for doing something increases the probability that is output/action/option will be chosen by the leadership of the organization and the government. Such an option is clearly conceivable, available at lower costs than would be true without the organization since the costs of creating the capability have already been paid. It is easier to find the political will to choose such an option since it exists as something that is realistic or feasible as opposed to hypothetical or imagined.”^{10}

Thus, the Organizational Behavior model would suggest that it is important for the organizations which are continually developing and producing options for decision makers regarding special operations (specifically the DOD) to integrate these new technologies into their organizational capacities so that special operations can be presented as an improved option for defeating national security threats. Then, as the “Organizational Behavior” model predicts, these tactical-level technologies will be viewed as realistic options to use in future special operations, and will likely have an impact on the decision-making process to approve or disapprove special operations.

Find, Fix, and Finish – Special Operations Targeting Methodology

US special operations primarily use a process called “F3EA” or “F3EAD” (Find, Fix, Finish, Exploit, Analyze, and, Disseminate) to target and engage individuals and organizations abroad. This process has its origins in the Cold War, and has evolved greatly over time to become part of a doctrinal cycle employed against high-value terrorist organizations around the world.^{11} Find, fix, and finish are the first three steps in the full targeting process, and is the central focus of analysis for the case studies in this paper. The remaining steps, exploit, (recovering information), analyze, (analyzing the exploited information), and disseminate (ensuring that this information is transmitted throughout the organization to make subsequent decisions) occur after the target has been successfully actioned. While extremely important, these three steps will not be covered as they are outside the scope of the analysis of this paper. However, the first three steps, namely “find, fix, and finish” will be briefly described.

Find: In this step, potential targets are first identified. This step utilizes intelligence collection and analysis in order to figure out who and where the target is. Army Doctrine
Reference Publication (ADRP) No. 3-05 titled “Special Operations” says that this step occurs when, “Aspects of the networks (threat/friendly) [are] identified and located…” However, this location may still be broad and the intelligence may be inactionable.

**Fix: ADRP 3-05 describes this step as the “determination of [the] precise location” of the target.** Within this step, actionable intelligence – intelligence that can be directly used to act – is formed using further intelligence collection and analysis methods. Unlike the find step, the fix step is time-sensitive, and the window of opportunity to move to the next step, finish is often narrow. This is because a target may be fixed at a location for a time, but may then move or be lost, making this intelligence inactionable. There is no method of knowing how long a target will be fixed (it can be from minutes to months), thus it is essential to move to the next step quickly.

**Finish: This is the action step in the process, wherein force is employed on the target. According to ADRP 3-05 this step involves “…lethal and nonlethal actions to disrupt and defeat the threat network and strengthen the friendly network.”** This can be done in a variety of ways (i.e., special operations forces direct action raid, air-to-ground strike, surface-to-surface strike, etc.). Notably, this step does not necessarily mean that the target must be killed. As Aki Peritz and Eric Rosenbach write in their book *Find, Fix, Finish: Inside the Counterterrorism Campaigns that Killed Bin Laden and Devastated Al-Qaeda*, targets “are successfully finished when they no longer represent a physical or ideological threat to US interests, not just when they are killed by military strikes or covert action.”

This three-step process is sequential and can move very quickly, especially in combat zones like Iraq and Afghanistan in the late 2000’s, and often the find and fix steps can have some overlap. The decision to action the target occurs between the fix step and the finish step. It is here that the decision maker must make the assessment as to whether or not he or she would like to further pursue the intelligence leads and actually commit to acting on the intelligence to finish the target by employing special operations forces or another option.
Simplified Find, Fix, Finish Methodology

Combining the Models: The Direct Action Decision Model

The above models and methodologies are complex and intricate. However, for the purposes of this paper they are simplified and combined to form a composite model, shown below, which can be helpful when thinking about the decision environment for direct action operations. This is also a sequential model, in that the model progresses from left to right, and ultimately shows how a decision is formed which can lead to either “finishing” a target or choosing not to act.
The model begins in the upper right, when a target is “found,” the first step in the F3EAD cycle. After a period of time, which can differ greatly from target to target, the model then progresses to the fix stage, when specific, actionable intelligence around a target is obtained through intelligence methods.

Simultaneously, military and intelligence organizations begin working to develop possible options to action the objective – to kill or capture a terrorist or group of terrorists. These options are then fed into the “decision environment,” as was suggested in the Organizational Process model. The “decision environment” refers to the setting in which the decision is made, a product of everything from the menu of options to any other constraints or factors that the decision maker is considering. A menu of options is formed that constitutes the range of possible choices for the decision maker to make.

Within the decision environment, once a fix has been made and subordinate organizations have offered their options, the decision maker must make a choice. He or she will weigh numerous factors – tactical, strategic, and structural – in order to choose the best option for the given situation. Subsequent sections of this paper will detail what these specific factors are. Thus, akin to the “Rational Actor” model, the decision maker must weigh the consequences of the options he has been presented to action the target, and determine whether or not “finishing” the target is a rational choice in line with the goals and objectives he has set. The decision maker’s ultimate decision then determines whether the F3EA cycle moves from fix to “finish,” or whether inaction persists. If the options offered to the decision environment are misaligned with these factors such that
the decision maker determines that it is a bad decision to approve the operation, then it is likely that no finish will occur.

This model is useful in considering how the technologies discussed in the next section can affect the decision-making process. As such, this model will be revisited in determining what impact these technologies can ultimately have on the decision-making environment. Based on these impacts, it will be assessed whether these technologies have the ability to alter the decision environment to such a degree that the decision maker will be more likely to approve special operations to deter or defeat emerging terrorist threats.
Section IV: Emerging Special Operations Technologies

This section describes three emerging technologies that have the potential to provide special operations with new and enhanced capabilities. These capabilities mitigate the risk to operators through advanced body armor, increase the likelihood of mission success through stealth, and minimize collateral damage through non-lethal weaponry. Within each of these capabilities, examples of the potential technologies that would provide these capabilities will be examined.

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All information on these technologies was gathered from unclassified sources. As such, the details of any individual technology mentioned may be out of date or omitted due to classification levels. However, the intent of this section is to provide a framework to understand how these technologies can expand special operations’ capabilities and improve their effectiveness at the tactical level. Consequently, it is these enhanced capabilities that will be assessed in order to determine whether they will have an impact on the decision-making process to approve or disapprove special operations.

Advanced Body Armor Technologies

Enhanced capability: reducing risk to the operator

Innovation in protective armor has been a critical part of history. As offensive weaponry has evolved, so has protective, defensive technology. From animal hides designed to bear the brunt of strikes to 14th century steel-plated armor designed to withstand arrows from crossbows, defensive technology has always evolved to meet new threats.¹ One recent example is the development of the Mine Resistant Ambush Protected (MRAP) vehicles used by the US in Afghanistan and Iraq. According to the Pentagon, these vehicles saved an estimated 40,000 lives from improvised explosive devices (IEDs), which were responsible for nearly 50% of all US military fatalities in Afghanistan and Iraq.²
As there is a need to continually innovate and develop new offensive technologies in order to maintain a competitive edge, the military also has to conduct research and development on defensive technologies in order to protect its most important asset - its people. Not only is it the right thing to do, but also the cost of educating and training US military personnel makes them expensive to replace. This is especially true for special operators, the most capable and best-trained fighting force in the world. Losing any US servicemember is tragic, but special operators are also difficult and expensive to replace. After a rigorous and extensive selection process, they engage in years of difficult training that costs hundreds of thousands of dollars before they are able to conduct military operations.\(^3\)

Given the dangers of conducting special operations and the emergence of special operation forces as a relied upon means to deter and defeat emerging threats, maintaining a technological edge on defensive technologies will likely be a priority for the US. This will not only mitigate the tactical risks to operators, but it will also make them more effective at conducting direct action raid operations. An emerging technology that would give special operators an unparalleled capability in conducting these operations is the Tactical Assault Light Operator Suit (TALOS).

**TALOS**

Initially presented by Admiral William McRaven, the former Commander of US Special Operations Command (SOCOM), the TALOS suit is meant to protect the first operator entering a compound during a direct action raid, when operators are particularly vulnerable during special operations.\(^4\) According to Admiral McRaven, if the technology is “…done correctly, [it] will yield revolutionary increase[s] in survivability and lethality.”\(^5\) The catalyst for the TALOS suit was a mission in which an US Special Operations operator died during a hostage rescue of a fellow American citizen.\(^6\)

According to General Joseph Votel, the current Commander of SOCOM, TALOS is meant to “provide comprehensive ballistic protection, peerless tactical capabilities, and ultimately enhance the strategic effectiveness of the SOF operator of the future.”\(^7\) The TALOS suit is meant to protect 60%-100% of the special operator’s body, with a specific focus on vital areas, like the head, neck, trunk, and groin, but with enhanced protection in all other areas as well.\(^8\) This represents a significant improvement to the 20% afforded by current body armor.\(^9\) The system is also intended to be capable of stopping a 7.62mm armor-piercing bullet at any range.\(^10\) Already, early prototypes of TALOS have shown at least a 47% reduction in damages and at least a 222% improvement in protection against these bullets and other ballistics.\(^11\)
Due to the weight of the additional armor, TALOS will feature an exoskeleton that will have motorized actuators on each leg in order to assist the operator’s mobility and agility. The exoskeleton will also be designed to know when and where the operator is about to move, providing actuation and similar maneuverability to those using the current body armor issued by the US military. The back of the suit will contain a small power pack and a cooling system that is connected to a cooling vest worn by the operator inside the suit. The proposed power source for the suit is a hybrid-electric unit that has a 10,000 RPM internal combustible engine. When stealth is necessary, the suit is capable of running on battery power for a limited amount of time. TALOS will also feature a helmet with a heads-up display and medical sensors to monitor the operator’s vital signs.

Stealth Technologies

*Enhanced capability: increase likelihood of mission success*

Technology that provides stealth capabilities can be defined as anything that decreases the detectability of an object through reduction of visual, acoustic, radar cross section, infrared, or electronic emissions signatures. In terms of air and naval warfare, stealth technology allows vital missions to be performed before the establishment of air, land, or naval superiority. It allows one to avoid or penetrate opposing defenses and operate unsupported to accomplish strategic objectives. Stealth technology provides an extraordinary return on investment and epitomizes the substitution of technology for manpower. An early example of the effectiveness of stealth in naval warfare was demonstrated in World War II when US stealth submarines, comprising only 1.6% of US Navy Personnel, destroyed 38% of the Japanese Imperial Fleet and 55% of all Japanese merchant shipping tonnage. The effectiveness of stealth in air warfare was further demonstrated in the Gulf War, when Air Force F-117s flew through Iraqi air defenses undetected and successfully attacked Iraqi air defense, leadership, and command and control targets without the conventional establishment of air superiority over Iraq.

As the air and naval examples above allude to, stealth capabilities allow a smaller force to conduct critical operations against a larger, well-defended force by maintaining the element of surprise and achieving relative superiority. As defined in Appendix I, a summary of Admiral William McRaven’s book *Spec Ops: Case Studies in Special Operations Warfare*, relative superiority “is the condition that exists when a smaller force gains a decisive advantage over a larger or well defended enemy.” For special operations, maintaining relative superiority is critical for mission success.

Stealth capabilities support the attainment of relative superiority by bolstering one of its key components: the element of surprise. The *Doctrine for Joint Special Operations* defines the element of surprise as the ability to “strike the enemy at a time or place, or in
a manner, for which he is unprepared.” Generally, special operators do not face an enemy that is unprepared. Thus, special operators sometimes rely on deception, which will divert a prepared enemy’s attention away from the attacking force or delay his response long enough for surprise to be gained at a crucial moment. Stealth technologies are critical for achieving the latter. Delaying the response of an enemy long enough to gain the element of surprise can be the difference between success and failure in direct action raids. When this element of surprise is not achieved, it may result in the enemy being alerted to the mission, allow time for the target to flee before he can be captured or killed. SOCOM Commander General Votel acknowledged the importance of this type of technology in conducting these types of operations when he stated “Signature reduction – things that can reduce the individual vehicle or vessel’s signature or profiles – will always be very, very important to us.” Thus, the ability to remain undetected is an enhanced capability that increases the likelihood of success for any given operation and could have a profound impact on the ability of special operators to conduct special operations. Technologies that could provide this capability include stealth cloaks and stealth transport.

**Stealth Cloak**

The stealth cloak is camouflage that allows the operator to blend in almost perfectly with any surrounding environment. The stealth cloak is made of a dielectric metasurface material that manipulates electromagnetic waves, including visible light and radio waves. The metasurface material is a skintight layer of transparent insulator decorated with rectangles of gold of different sizes, generally less than a micrometer on each side. As human eyesight requires light bouncing off an object and passing into your eyeball, manipulating these waves could render someone using the cloak almost invisible to the human eye.

**Stealth Transport**

*Stealth Ground Vehicles:* The stealth vehicle concept is to trade the cumbersome armor of combat vehicles for agile, stealth vehicles that eliminate the need for armor because of their ability to travel undetected. These vehicles aim to reduce the visible, infrared, acoustic, and electromagnetic footprint allowing special operators ground access to potential targets in hostile environments. An example of a stealth vehicle currently under development is a multiple fuel, hybrid-electric powered dirt bike that allows operators to travel over extreme terrain in hostile conditions while remaining relatively quiet and undetectable.

**Non-Lethal Technologies**

*Enhanced capability: reduce collateral damage*
The Department of Defense defines non-lethal weapons as “systems that are explicitly designed and primarily employed so as to incapacitate personnel or materiel, while minimizing fatalities, permanent injury to personnel, and undesired damage to property and the environment.” For non-lethal purposes, to incapacitate means to eliminate a threat by rendering it incapable of carrying out its assigned duties or desired actions while maintaining a low probability of fatality or permanent injury.

In the contemporary operational environment of US counterterrorism efforts, interest in non-lethal capabilities has found a critical resurgence among military strategists. As stated by General Petraeus when he was commander of the International Security Assistance Force in Afghanistan, “…if we kill civilians or damage their property in the course of our operations, we will create more enemies than our operations eliminate.” This dictum is especially true for special operations. As previously discussed, special operations already have the ability to minimize collateral damage more than other options. Non-lethal weapons have the ability to further reduce collateral damage around the target. Furthermore, they may enhance the ability of operators to capture desired targets (instead of killing them) and thereby increase the amount of intelligence that can be collected during these raids.

General Votel, speaking on the value of a non-lethal capability, states it “gives [special operators] great options on how to solve problems, get control of the situation. So we always want to look at areas like that and how we can do better.” In suggesting non-lethal weapons as an added capability for special operations, it is important to understand that they will only be used in conjunction with lethal weapons. In attempting to minimize collateral damage, it must be ensured that operators still maintain the ability to fully defend themselves against deadly force by the enemy. However, non-lethal weapons provide a valuable addition to lethal munitions that could reduce collateral damage and lead to more captures of terrorist leaders. Below, two potential non-lethal weapon categories that could provide this capability are briefly examined.

Disorienting Weaponry

A series of non-lethal weapons are being developed that can serve the purpose of confusing the enemy during the pivotal first moments of an operation. These offer an advantage over the current “flash-bang” grenade in that they are directed and discriminate. Thus, only the enemy or suspected enemy will undergo the disorienting effects, allowing for potentially even more effective and timely execution of the raid by special operators. Also, these effects are temporary and non-lethal, so the risk to civilians is minimal.
Directed Acoustics: Directed acoustics are designed to temporarily impair the auditory capacity of the enemy by emitting loud, directed noise. With decibel levels up to 150, this effect is likely to inflict pain on the enemy and distract them from the impending operation. Directed acoustic devices are typically mounted on vehicles, but some models are being developed which can be handled by a single operator.

Directed Light: The system is a laser emitting, eye-safe device meant to temporarily blind, disorient, and suppress individuals at a range of 10-500 meters. It discharges a powerful green laser that disrupts the vision of potential adversaries while preventing permanent eye damage. The portable device can be hand-held or weapon-mounted and does not inhibit an operator’s ability to employ lethal force.

Incapacitants

Incapacitants are “…toxic chemical or biochemical agents that act on neuroreceptors in the central nervous system to cause sedation, disorientation, hallucination, mood changes, unconsciousness, and death.” In order to be effective, these agents must be “highly potent… [with] a rapid onset”, have a defined duration of effects that are reversible, and must be capable of “rapid, often covert, dissemination in defined, controllable, and appropriate amounts.” Mechanisms of dissemination include aerosol delivery through munitions, projectiles, and ventilation systems, or direct injection with dart-like munitions. Specific incapacitants range from chemicals as minor as tear gas to those as severe as fentanyl, a compound used for anesthesia in medical procedures. According to a 2004 report by the Defense Department’s Defense Science Board Task Force, the key issue with these types of compounds is “…striking the right balance between effectiveness (i.e., the targets are truly “calmed”) and margins of safety (i.e., avoiding overexposure and resulting fatalities of neutral bystanders).” However, continued advancements in biotechnology may provide solutions to this problem and make incapacitants a more viable option for military use.

Currently, these types of incapacitants are barred by the Biological and Chemical Warfare Conventions, to which the US is a signatory. Furthermore, their indiscriminate nature may violate the Just War Doctrine because in some cases they might fail to distinguish combatants from non-combatants. The importance of this principle is evident in the 2002 Chechen hostage crisis in Moscow. After 50 Chechen terrorists took 800 people hostage at Dubrovka Theater, Russian Special Forces disseminated a fentanyl derivative through the ventilation system in order to resolve the crisis. 125 hostages died as a result of the incapacitating gas. Thus, there are legal and moral concerns that technical advancements may not be able address when it comes to deriving a non-lethal capability from incapacitants.
These three categories of technologies represent three enhanced capabilities available when conducting special operations such as direct action raids. If these capabilities were able to expand or improve the menu of options presented in the decision environment, is it possible that this will better align the decision maker’s concerns with these options such that more operations are approved. The impact of these technologies’ capabilities on the decision to approve special operations is the subject of the next section.
Section V: Impact of New Technologies on Past Opportunities

Each decision to approve or deny a special operation is unique. Within each decision, various tactical, structural, and strategic factors are weighed by the decision maker, and ultimately the decision made is a product of these various factors. Presented below are two historical instances of “missed opportunities” – occasions when intelligence indicated where a terrorist target was located, but the decision to pursue the target using special operations was not made. The purpose of examining these “missed opportunities” is twofold. First, these “missed opportunities” reveal a list of factors that are most important in the decision to approve or deny a special operation. Second, the impact that new special operations technologies can have on these decisions can be analyzed by understanding the specific impact on various decision factors born out by these two case studies. Simply put, what if these new technologies had been available at the time the decision was made to not conduct a special operation against a terrorist target? Would the expanded capabilities granted through these new technologies have resulted in a different decision being made?

In the following section, background of the two historical missed opportunities is provided, and a list of factors that were most heavily considered by decision makers in each case is produced. The goal is to understand why decision makers chose not to move from fix to finish in each case. Then, an analysis of the impact of the new and enhanced special operations technologies is performed in order to determine the extent to which they would be able to alter the decision environment and produce a different decision.
The 1998-1999 Hunt for Usama bin Laden

Usama bin Laden is perhaps the most notorious and well-known terrorist leader in modern history. Born to a wealthy Muslim family in Yemen, bin Laden received a Western education and enjoyed a plush upbringing. In 1988, bin Laden created the terrorist group called al-Qaeda, or “the base” to wage war against the US and its allies through acts of terrorism. In the 1990’s, bin Laden issued several “fatwas” (rulings on Islamic law given by an Islamic authority) calling for Muslims everywhere to attack Americans. In a fatwa published in 1998, bin Laden made the following directive: “To kill the Americans and their allies -- civilians and military -- is an individual duty for every Muslim who can do it in any country in which it is possible to do it....” Many extremist Muslim fighters pledged their allegiance to bin Laden and joined al-Qaeda in carrying out attacks against the US and its allies. His al-Qaeda terrorist organization has attacked the US on several occasions, most famously on September 11, 2001. Other attacks and attempted attacks by bin-Laden’s al-Qaeda network have targeted Americans domestically and around the world, including attacks on US embassies in Kenya, Pakistan, and Tanzania, bombings of the USS Cole in Yemen, and bombings in London in 2005. The estimated resulting death toll from al-Qaeda attacks from 1992 to 2008 was over 4,400.

Find

According to The 9/11 Commission Report, chaired by Thomas Kean, the US had been tracking Usama bin Laden as far back as 1992. However, at the time, he was still considered nothing more than a financier of extreme terrorism. It was not until 1996 that the Central Intelligence Agency’s (CIA) Counterterrorism Center began to understand that he was much more powerful and dangerous than simply a terrorism financier; he was the head of a burgeoning al-Qaeda terrorist group. In response, the CIA stood up a special “Bin Laden unit,” headed by CIA analyst Michael Scheuer, to study and track bin Laden’s whereabouts. Intelligence for bin Laden was initially difficult to obtain while he lived in Sudan but, in 1996, bin Laden left Sudan and moved to Afghanistan. The CIA was immediately able to leverage contacts in the area (left over from the Cold War) to begin tracking bin Laden’s movements and activities. The 9/11 Commission Report notes that, “These contacts contributed to intelligence about bin Laden’s local movements, business activities, and security and living arrangements, and helped provide evidence that he was spending large amounts of money to help the Taliban.” Through this intelligence, the “Bin Laden unit” had an approximate idea of where bin Laden was during much of the late 1990’s. This included pinpointing his residence at Tarnak Farms outside of Kandahar, and observing a pattern of life, specifically noting his travels from Kandahar to his terrorist training camp in Khowst. Scheuer and his team were able to develop a substantive understanding of al-Qaeda and bin Laden. As Michael Morell
noted, Scheuer “knew more about al-Qaeda than probably anybody else in the US government.” However, even with this knowledge, the exact size and composition of the al-Qaeda terrorist network remained unclear until after 9/11.

Throughout his early time as al-Qaeda’s leader, it was clear bin Laden was planning to strike America. In February of 1998, bin Laden declared a fatwa that all Muslims should comply with “God’s order to kill the Americans and plunder their money.” The basis for this was that America had declared war on the Islamic God by stationing forces in holy grounds, attacking Iraq, and supporting Israel against the Palestinians. Bin Laden made good on his commitment to strike America soon after issuing this fatwa. On August 7, 1998, US embassies in Kenya and Tanzania were bombed and intelligence reports immediately indicated that bin Laden was responsible. The CIA and the Clinton Administration began taking much more seriously the threat that bin Laden posed and adopted a more aggressive approach towards killing him. Thirteen days after the bombings, with President Clinton’s approval, Tomahawk cruise missiles were launched at eight al-Qaeda terrorist training sites, but none were successful in killing bin Laden or any other high level al-Qaeda leaders. The general domestic response was that this was much too aggressive and would likely only stir up more people in the region to join bin Laden’s crusade against the US. Further, some inside the government believed that it was ineffective and counterproductive to tracking bin Laden and reduced the likelihood of capturing him. This was because after the missile strikes, bin Laden became much more paranoid, stopped using his satellite phone (which was being used to track him), and stopped his routine travels.

Following the terrorist bombings and subsequent missile attacks, more intelligence was gathered and reported to the President that bin Laden may be in the process of planning another attack, this time on American soil. This intelligence included the possibility of an aircraft hijacking on US soil by bin Laden affiliates, and mentioned that al-Qaeda members had received some training on aircraft hijacking. This placed an increased amount of pressure on the Clinton Administration to develop a strategy to deal with bin Laden and his terrorist network.

Fix

The CIA had developed a clear pattern of life for bin Laden prior to the 1998 Tomahawk cruise missile strike. He lived with his wives and children at Tarnak Farms outside of Kandahar, and routinely traveled to and from Khowst, the location of a central training camp. This was where a fix on bin Laden would have been easiest to obtain, and moving to the next step of finish could have been done most secretively and with the greatest element of surprise. However, after the Tomahawk cruise missile strike missed bin Laden, intelligence became much more difficult, and fixes became harder to obtain.
As The 9/11 Commission Report notes, “…since the August missile strikes, bin Laden had taken to moving his sleeping place frequently and unpredictably and had added new bodyguards. Worst of all, al-Qaeda’s senior leadership had stopped using a particular means of communication [satellite phones] almost immediately…” Following the cruise missile strikes, there were three specific instances when it appeared that the US had high-quality “actionable” intelligence on bin Laden’s whereabouts and came close to authorizing a strike. The first was on 20 December 1998, when bin Laden was located in the governor’s residence in Kandahar. The administration heavily considered using a Tomahawk missile strike to kill him, but the option was ultimately dismissed because of the high level of anticipated collateral damage. Additional concerns about the missile strike hitting a mosque further cemented this decision not to strike.

A second opportunity presented itself a few months later on 11 February 1999, when the CIA received detailed intelligence that bin Laden was located in the Sheikh Ali desert hunting camp along with visitors from the United Arab Emirates. This remote location would likely result in much less collateral damage if a strike had been approved. However, bin Laden’s exact location within the camp was never certain, and some of the United Arab Emirates’ visitors that bin Laden was hunting with were purportedly royalty, significantly increasing the political risks of a strike. Further, according to a letter by Michael Scheuer to the Members of the Senate Select Committee on Intelligence in 2004, the US was also reportedly working with the Taliban on an agreement to give bin Laden to the US at the same time as this intelligence report. As a result, no strike was approved.

A third opportunity presented itself in May of 1999, when intelligence indicated that bin Laden would be in Kandahar for a five-day period. This was perhaps the best actionable intelligence on bin Laden, as the report was detailed and confirmed by several different sources. However, the CIA was still reeling from a faulty intelligence report that resulted in the US bombing the Chinese Embassy in Serbia earlier that month, and CIA leadership and administration officials were very skeptical of the intelligence report and remained wary towards striking bin Laden. Specifically, CIA Director George Tenet indicated that the probability of the intelligence being accurate was 50-50, although others within the CIA and military believed it to be much higher. There were also some concerns about collateral damage. Again, no strike was authorized, to the chagrin of the CIA and military officials involved. As one senior military officer involved in the planning told The 9/11 Commission Report, “This was in our strike zone. It was a fat pitch, a home run.”
Apart from the early reactive missile strike that missed bin Laden following the embassy bombings in August 1998, the US never closed the loop in attempting to finish bin Laden. In spite of the aforementioned instances where bin Laden was fixed with actionable intelligence, no action was ever authorized by President Clinton. There were three offensive options that were developed during this time period in order to finish the rising threat of Usama bin Laden, none of which were approved.

The first offensive option was another missile strike against bin Laden. Throughout these three instances where bin Laden was “fixed,” a missile strike was the option that was most seriously considered. However, in his book *At the Center of the Storm*, CIA Director George Tenet discussed some concerns around using cruise missiles:

“I understood why the administration favored cruise missiles. They didn’t require putting pilots at risk, and they carried none of the burden or baggage of inserting combat troops. But in hindsight, I’m not certain at the time we fully comprehended the missiles’ limitations. The slow flying missiles are a good choice for taking out fixed targets…but are fare less ideally suited to targeting individuals who wander around during the several hours between the time the missile is launched and when it lands.”

Additionally, concerns about collateral damage, domestic political concerns on the heels of the poor response after 1998 missile strikes, and the possibility of inspiring more anti-Americanism in the region made this option difficult for President Clinton to use. Finally, at an estimated cost of $750,000 a missile, President Clinton would only deploy a Tomahawk Cruise Missile if he was absolutely certain of bin Laden’s location.

Second, the CIA’s “Bin Laden Unit” developed an offensive plan to capture bin Laden. This plan would use an Afghan tribal group to capture bin Laden, transfer him to a second tribal group to be held in a cave (for up to a month) before a US aircraft would land at a nearby airport in Afghanistan and fly bin Laden back to the US. Afghan tribal elders were reliable in reporting bin Laden’s intelligence to the “Bin Laden Unit,” so the idea of them using force to capture or kill bin Laden was a natural step in their offensive planning. However, the plan was ultimately rejected by Tenet. Michael Morell, who was Tenet’s executive assistant at the time, explains why:

“As you know, the more moving parts in an operation, the more that can go wrong, and there were a lot of moving parts in this thing. So, it was rejected by
the Director... He rightfully rejected it. I thought its chances of success were near zero, so any risk you took: risk to force, risk of collateral, the consequences were huge when the chance of success is near zero. So I thought it was absolutely the right decision. What I thought was weird about the whole thing... was that it ever showed up in the Director’s office in the first place, because everybody thought it was a stupid idea.”

While this option was ultimately rejected, it remained an option for the CIA and the Clinton Administration in 1997-1998. Additionally, as the 9/11 Commission Report notes, “no capture plan before 9/11 ever again attained the same level of detail and preparation.”

The third and least-considered option for President Clinton was a special operations forces direct action raid against bin Laden. US Special Operations Command had been a unified combatant command since 1987, and the secretive Joint Special Operations Command was established after Operation Eagle Claw, the failed attempt to rescue American hostages held in Tehran in 1980. Further, these special operations commands featured operators who were trained specifically for counterterrorism missions – killing or capturing terrorist leaders around the world. Thus, it’s surprising that this option was not considered more seriously. Lieutenant Colonel (ret.) Pete Blaber, a Delta Force officer, was in charge of designing offensive plans to capture bin Laden in 1998, prior to the Tomahawk missile strikes. His plan involved landing C-130s near Kandahar in dry lake beds at night, linking up with Afghan tribal members (if available), and using Toyota Land Cruisers to either attack Tarnak Farms or intercept bin Laden while he was traveling from Kandahar to Khowst. This plan was later rejected. Additionally, several other ground special operations forces plans were proposed after the Tomahawk missile strikes, including plans to capture bin Laden and attack his training camps. The details of these plans remain classified. Finally, the possibility of using special operations AC-130 gunships to strike bin Laden’s compound was briefly entertained, although it was quickly tabled by senior Defense Department officials for logistical reasons.

Revisiting the model developed in Section III helps to organize and simplify the understanding of this decision. This model, provided below, helps to illustrate how the options presented to President Clinton and his advisers were mismatched with the tactical, strategic, and structural factors present in the decision environment, ultimately leading to inaction.
Regrettably, the US chose not to finish bin Laden when it had the chance in 1998-1999. These missed opportunities would eventually lead to the terrorist attacks on American soil on September 11, 2001 and the subsequent 14-year war in Afghanistan and beyond. This campaign would cost over 2,300 American lives and an estimated $686 billion in US expenditures. Over a decade later, in May of 2011, bin Laden was killed in a special operations direct action raid.

Particularly frustrating for those within the special operations community was the lack of willingness for the President and his advisors to utilize their counterterrorism capabilities against bin Laden, even though this capability was ready and available. As General Pete Schoomaker, USSOCOM commander in the 1990s, said, “…Special operations was never given the mission. It was very, very frustrating. It was like having a brand-new Ferrari in the garage, and nobody wants to race it because you might dent the fender.” Despite having this well-known and highly-specialized option to strike bin Laden and his terrorist network, President Clinton and his advisors never fully entertained the idea of a direct action raid by special operations forces.

In order to better understand why President Clinton chose against “finishing” bin Laden in the three aforementioned instances when the US had him “fixed,” the factors that ultimately contributed to inaction must be determined. Below, eight of the most

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From Fix to Finish – An Analysis of the Decision Environment

- CIA Tribal Plan
- Tomahawks
- SOF DA Raid
- President Clinton
- Tactical Factors
- Strategic Factors
- Structural Factors

Find $\rightarrow$ Fix $\rightarrow$ Decision $\rightarrow$ Inaction

Choice Set

Time
significant of these factors that the Clinton Administration and his advisors considered in deciding not to act are expounded upon. These factors are examined broadly to determine why no action was done at all, and also specifically to determine why no special operations direct action raid was approved. Three categories of factors are outlined below: tactical-level factors involved in using special operations forces to strike bin Laden, broader strategic-level factors that also weighed into the decision environment, and structural factors that helped to shape the decision environment. Tactical-level factors are the “on the ground” elements that deal with how the special operation is carried out. Strategic-level factors are concerned with America’s national security objectives and how best to carry out those objectives. Structural factors are factors which are a product of the way that the decision was shaped for the decision maker, relating to the institutions, norms, and standard operating procedures that contributed to the decision. These factors are certainly not independent, and there can often be significant overlap both between the categories of factors and the factors themselves.

*Tactical-Level Factors*

_Risk to Force:_ In considering the use of special operations forces to kill or capture bin Laden, President Clinton and his advisors were very concerned about the risk of losing an operator. Two recent examples came to mind for President Clinton and his advisors, both of which involved mission failure and loss of life. The first was Operation Eagle Claw, which resulted in the loss of eight servicemembers. According to _The 9/11 Commission Report_, numerous officials drew analogies to this operation when considering using special operations forces against bin Laden. The second example, which took place under President Clinton, was the Battle of Mogadishu. From October 3-4, 1993, special operations forces were employed to capture Somalian warlord Mohammed Aidid. During the operation two Black Hawk helicopters were shot down which subsequently resulted in the deaths of eighteen soldiers. The failed operation was highly publicized and heavily criticized. As Shultz writes, “The Mogadishu disaster spooked the Clinton administration…and confirmed…the view that SOF should never be entrusted with independent operations.” An officer in the Pentagon at the time told Shultz that after the Mogadishu disaster, there was “reluctance to even discuss pro-active measures associated with countering the terrorist threat through SOF operations… They didn't want to put special ops troops on the ground.” As a result, even five years later, operators like Blaber felt that there was a strong reluctance to put operators at risk saying, “Back then,

In 2004, Richard Shultz, a historian and professor of International Affairs at Tufts University, wrote an unclassified article in _The Weekly Standard_ (the classified version was submitted to senior officials in the DOD) titled “Showstoppers,” which detailed nine reasons why the US failed to employ special operators to counter bin Laden prior to September 11, 2001. His research was used and cited heavily in generating these factors.
if there was any risk that a man might be killed or captured during an operation, the operation was deemed not politically worth the risk.”

*Intelligence Fidelity:* In each of the “fixes,” the degree to which the intelligence was actually actionable was questioned by President Clinton and his advisors. Arguably, the degree of difficulty to develop quality, actionable intelligence was exacerbated by the 1998 Tomahawk cruise missiles, which may have made bin Laden aware that he was being tracked by the US. A senior official in the Clinton administration illustrates the skepticism with which intelligence was greeted, saying “if you get intelligence, it's by definition very perishable. [Bin Laden] moves all the time and he undoubtedly puts out false stories about where he's moving.” According to Tenet, the level of confidence in this intelligence was never greater than 50 to 60 percent. This not only made the use of missiles less likely, it also added to the reluctance to put any operators at risk. As William Cohen, President Clinton’s Secretary of Defense, told The 9/11 Commission Report, “the notion of putting military personnel on the ground without some reasonable certitude that bin Laden was in a particular location would have resulted in the mission’s failure and the loss of life in a fruitless effort.” However, Tenet disagreed, advocating for direct action as a method of gathering further intelligence to penetrate al-Qaeda:

> “Ultimately, no matter how hard we worked inside Afghanistan, real increases in the quality of data acquired there would ultimately occur only when we finally disrupted al-Qaeda’s environment through direct action, forcing them up out of their comfort zone, putting them on the run, and causing them to make mistakes. Action begets intelligence.”

Thus, the reluctance to put operators on the ground to penetrate the network through direct action actually contributed to this possible intelligence deficit. Further, as Shultz suggests, refusing to put operators in Afghanistan for ISR (Intelligence, Surveillance, and Reconnaissance), another common special operations forces mission, made gathering and developing actionable intelligence much more difficult.

*Logistical Difficulties:* In considering using special operations against bin Laden, numerous Clinton officials sited logistical and staging problems as a key difficulty. This is because the plans senior officials considered for special operations included a large, multi-component force that required several logistical staging points, moving parts, and asset coordination. This “more is better” attitude made the planning, coordination, and successful completion of a direct action raid much more difficult than the original theory and design of special operations. It also resulted in a large logistical footprint to conduct a direct action raid, much larger than a missile strike. According to Blaber, this factor is rooted in the fact that senior officials were unwilling to put operators at risk. He identifies
this as “the footprint paradox”: “To obviate any risk to the small number of men needed to conduct high-risk operations, the upper echelon of the military believed they had to employ massive armadas of helicopters, jets, vehicles, and people to address every possible contingency.” The result is that an originally simple operation – killing or capturing bin Laden – becomes very complex and slow-moving, and thus becomes less likely to be approved.

Probability of Success: Specific to the use of special operations forces to kill or capture bin Laden, President Clinton and his advisors viewed the likelihood of mission success as very low. Just as Morell discussed Tenet’s rejection of the CIA’s internal plan to use Afghan tribals to capture bin Laden, those within the DOD and the Clinton Administration were very skeptical of special operations forces ability to successfully conduct a mission, even though this was a skill that they had been training on for over a decade. Walter Slocombe, President Clinton's Undersecretary of Defense for Policy, discussed this reluctance with Shultz. “We certainly looked at lots of options which involved the possible use of SOF,” he said. However, these options were never employed to finish bin Laden “because they seemed too hard to pull off.” Instead, Slocombe viewed cruise missiles as the easier and less risky option. Again, this factor interacted with the previous factors of risk to operators and logistical difficulties. Senior military members only wanted to push forward fail-safe plans, which made these plans increasingly complicated, ironically resulting in them being viewed as unlikely to succeed. As Blaber writes, “Paradoxically, it was the military’s insistence on ‘zero defect operations’ that created the requirement for the massive logistics footprint, which in turn ended up making the operation politically untenable.”

Collateral Damage: As aforementioned, President Clinton was highly reluctant to use a missile strike against bin Laden out of fear of collateral damage. This included both the harming of civilians and the surrounding structures, including a mosque in one instance. However, there also appeared to be reluctance to use special operations forces for this reason. As General Wayne Downing, former SOCOM Commander, told Shultz that many of those advising President Clinton had the attitude of, “Don't let these SOF guys go through the door because they're dangerous...They are going to do something to embarrass the country.” Unfortunately, this attitude may have resulted in several missions being denied. Collateral damage was a factor that President Clinton weighed very heavily in his decision-making process, both in deciding to authorize a missile strike or special operations forces direct action raid against bin Laden.

Strategic-Level Factors

Legality: Shultz expounds on how legality was an issue in approving a strike against bin Laden in two ways. First, broadly, there was little and unclear precedent at the time to use
the military to action terrorists abroad. This was because terrorism was defined as a crime and not as an act of war – bin Laden was thought of as a criminal that must be prosecuted, not as a combatant acting against the US in war. Thus, as General Schoomaker told Shultz, “because it’s not war, and we don’t act like we’re at war, many of the Defense Department’s tools are off the table.” The legality within the US law to conduct a special operation was also debated. Although both SOCOM and Joint Special Operations Command (JSOC) were already established, and counterterrorism doctrines had already been developed and drilled within them, there was still question on whether this option was authorized by US law. As Shultz says, “A gap exist[ed]…between DOD's capability for clandestine operations and its authority under the US Code.” This gap occurred because many senior Pentagon officials believed that covert operations, wherein the US was able to deny its involvement, were not covered under Title 10; therefore, the DOD could not conduct such a mission. While Title 50 authorizes covert, deniable operations, the thinking at the time was that it only granted the CIA the authority, and not the DOD. However, Shultz argues that this interpretation of the law was by Pentagon officials who saw legality as an excuse not to use special operations. “The Pentagon did not want the authority to strike terrorists secretly,” Shultz writes, “or to employ Special Forces against states that aided and sheltered them.”

*Domestic Political Concerns:* According to Morell, one of the key difficulties that US leaders like President Clinton face is gaining the support of the American public in acting pre-emptively to counter terrorists. “It’s really hard to get the American people to move ahead of the event you are trying to prevent,” he says. Thus, a key factor that President Clinton and his advisors faced was the domestic belief that a pre-emptive strike against bin Laden was unnecessary. President Clinton definitely felt increased pressure in the aftermath of the Tomahawk cruise missile strikes, which were greeted with hostility by the American media and the American public as being far too aggressive and unnecessarily creating enemies in the Middle East. Even those within the US government were reluctant to take bin Laden and his terrorist activities seriously. Shultz argued that many within the senior ranks of the DOD believed that there was no “clear and present danger” presented by bin Laden and al-Qaeda in 1998. Even when bin Laden had performed numerous acts of terror at increasing rates in the 1990s, most notably the embassy bombings in 1998, many believed that the threat of terrorism bin Laden posed was not serious. As Shultz writes, “A very senior SOF officer who had served on the Joint Staff in the 1990s told me that more than once he heard terrorist strikes characterized as ‘a small price to pay for being a superpower.’” Adding to this was the aforementioned factor of operator risk – President Clinton did not want to risk another political maelstrom by putting operators on the ground with the risk of losing American lives.
Context: The broader context of the decision, including what else was going on in 1998-1999, also mattered in this case. As Shultz mentioned, there was no precedent for using special operations against terrorist threats at this time. The US was in the midst of the Kosovo war as well, backing NATO and the KLA with airstrikes and limited naval and ground support. Further, the terrorism threat prior to September 11 was viewed as a crime, and thus employing special operations or another kinetic option to go after a terrorist by bin Laden was unprecedented. Finally, President Clinton was in the middle of the Lewinsky sex scandal and was focused on internal domestic political outcries.

Structural Factors

Organizational “Stovepiping”: Not all parts of the US government were working synchronously to attempt to finish bin Laden. Between organizations, specifically the Department of Defense and the CIA, the sharing of information and intelligence was very limited. For example, while Blaber and his special operations team attempted to draw up their own plan to kill or capture bin Laden, he was unaware of the CIA’s plan to do the same. Regarding the CIA’s plan to capture bin Laden, Michael Morell states that, “This was one part of CIA planning the op totally on its own, not even reaching out to the CIA paramilitary guys, to all the former military guys in the ground branch.” The two plans were designed entirely separate – the CIA having the intelligence advantage and the special operations forces having the mission planning and execution capabilities advantage. The result was inefficient and ineffective mission planning processes that made President Clinton’s decision to go after bin Laden much more difficult. Blaber agrees, emphasizing the need to integrate CIA intelligence into the mission-planning and execution capabilities of special operations:

“…even we, some of the most highly trained and experienced warriors in the world, had no business making recommendations for such an important mission when we didn’t understand the on-the-ground context of Afghanistan and [bin Laden]. We were experts on how to conduct capture operations for sure, but all we could do was provide a best-guess recommendation to our president.”

Within the DOD, there was also a great reluctance to use the special operations forces to go after bin Laden, and many favored the missile option. Even when President Clinton inquired about the possibility of using special operations forces, his senior military advisors would shut him down. As one former Clinton official told Shwartz, "[special operations forces] options were discussed, but never got anywhere. The Joint Staff would say, 'That's cowboy Hollywood stuff.' The president … [and] the White House took the 'stay away from SOF options' advice of the generals." Multiple special operations forces options were blocked or advised against by the Joint Chiefs Chairmen. Thus, both inter-organizational and intra-organizational “stovepiping” hindered the
ability of the US to most effectively counter bin Laden and also greatly limited the menu of options and capabilities presented to President Clinton.

The combination of the above factors resulted in the failure to act against bin Laden in 1998-1999. In particular, these factors help establish why President Clinton failed to approve a special operations force direct action raid to finish bin Laden, even though some degree of actionable intelligence had been attained on numerous occasions. Accordingly, the 9/11 Commission Report states that it “found no evidence that such a long-term political-military approach for using Special Operations Forces in the region was proposed to or analyzed by [senior administration officials], even though such capability had been honed for at least a decade within the Defense Department.”

Moreover, apart from the Tomahawk missile strikes in August of 1998, no action was authorized to counter bin Laden and al-Qaeda.

The Impact of New Special Operations Technologies in Finishing bin Laden

The above factors, both tactical and strategic, were influential in contributing to the decisions not to act against bin Laden in 1998-1999. The impact of the technologies discussed in Section IV will be applied to each of these factors to determine whether they would have expanded or improved the special operations option such that it better aligned with the factors that were considered in the decision environment. This is done by placing the factors into three categories: (1) Significant Impact – the specific factor would have been significantly altered by one or more of the technology capabilities, (2) Moderate Impact – the technologies would have likely resulted in some alteration or reduction in these factors, or (3) No Impact – these factors would not have been impacted in any significant way by the new special operations technologies. The sum of this analysis will help to answer the question: If these special operations technologies were available to President Clinton and his team in 1998-1999, would the outcome have been any different? The model shown below helps to clarify this analysis.
Impact of Technology on the Direct Action Decision Model

*Tactical-Level Factors*

**Risk to Force – Significant Impact**
President Clinton was very concerned with the possibility of the death of an operator in a special operation overseas outside of a declared war zone. The presence of advanced armor technology, such as TALOS, significantly decreases the likelihood that an operator is killed by small arms fire. Thus, this technology could have helped to significantly reduce the weight of this factor in the decision environment. It is very likely that the presence of this type of technology would have decreased the hesitation to approve a special operation based on this concern.

**Probability of Success – Significant Impact**
President Clinton and his advisors viewed a special operation as too risky and too likely to fail. These new technologies may have affected this factor in two ways. First, stealth technologies that ensure that operators are more likely to achieve and maintain relative superiority in killing or capturing bin Laden may have made a special operation more tenable to President Clinton and his advisors. Second, the advanced armor technology, which could have reduced the risk to the operators, could have resulted in a simplified mission plan that would have been viewed by President Clinton and his advisors as less complicated and more likely to succeed.

**Collateral Damage – Significant Impact**
One of President Clinton’s chief concerns was collateral damage. A major reason for his reluctance to approve a Tomahawk cruise missile strike was the damage to surrounding structures and the risk of civilian casualties. Based on the aforementioned discussion on the benefits of a direct action raid, using special operations to kill or capture bin Laden
would likely have reduced this concern. However, some of President Clinton’s closest advisors remained hesitant in approving a special operation because of the likelihood that an innocent would be killed in the operation. If advanced less-than-lethal weaponry had been available to operators during the mission at the time, this could have further decreased this factor and significantly reduced President Clinton’s concerns around collateral damage.

Logistical Difficulties – Moderate Impact
One of the major reasons why logistical difficulties remained such a significant factor was because of the complexity of the operations that were being considered. In what Blaber calls “the footprint paradox,” the primary reason why logistics were so complicated was because President Clinton and his advisors were concerned with the risk to force. This resulted in an incredibly large footprint that made the plans for conducting the operation incredibly complex and difficult, which, in turn, made inaction through special forces more likely. However, as discussed previously, the advanced armor technology would have reduced this risk to force. This could have helped to simplify the logistics involved with the planning for the special operations. If the “risk to force” factor was not as significant, then this factor too may have been lessened.

Intelligence Fidelity – No Impact
Concerns existed regarding the quality of intelligence surrounding the “fixes” on bin Laden. The reputability of the local sources on the ground seemed to be questioned. As Shultz suggests, this could have been mitigated by using special operations forces to conduct additional ISR (Intelligence, Surveillance, and Reconnaissance) on bin Laden. However, the focus of this analysis is not on the technologies ability to improve the ISR capability of special operations, but to improve the direct action raid capability. Thus, the technologies would not have changed the circumstances surrounding the “fix.”

Strategic-Level Factors

Domestic Political Concerns- Significant Impact
The basis of this strategic-level factor was rooted in two tactical factors: collateral damage and risk to force. Following the Tomahawk cruise missile strikes in 1998, the public backlash was strong against this type of indiscriminate attack. Therefore, any action against bin Laden would have to involve minimal collateral damage and civilian casualties in order to ensure that the American public did not become further outraged. Additionally, the American public had a very little appetite for putting American forces at risk of peril in military operations, especially following the Battle of Mogadishu in 1993. However, the presence of advanced armor technology, such as TALOS, which could have reduced the risk to the special operators involved in the mission, may have lessened President Clinton’s concerns about the domestic political environment. This represents a
clear case of where these new tactical-level technologies could have made an impact on a strategic-level factor.

**Legality – No Impact**
Technology would likely have made minimal impact on the interpretation of the law. Both in the way that terrorism was considered by the law and the way that covert and clandestine operations were interpreted by those within the administration would likely not have been affected by any expanded technological capabilities.

**Context – No Impact**
These new technologies would not have made a major impact on the broader context in which the decision was made. The fact that terrorism was considered a crime, the US’s involvement in Kosovo, and President Clinton’s domestic focus amidst the Lewinski sex scandal would all have not been affected by the existence of these technologies.

**Structural Factors**

*Organizational “Stovepiping” – No Impact*
No technologies could have fixed the issues with organizational stovepiping that were present at the time of the decision. In order to knock down these stovepipes and fully integrate components within the DOD and CIA, it would take over a decade of working together in the wartime efforts in Iraq, Afghanistan, and around the world post-9/11. Following the special operations direct action raid that would kill bin Laden in 2011, then-JSOC Commander Admiral William McRaven said that the operation “would simply not have been possible if CIA and JSOC had not spent a decade in bed together.”

The number of special operations conducted since the war on terrorism began fostered close relationships, confidence, and trust within the DOD and CIA. New special operations technological capabilities would not have impacted this factor in 1998-1999.

**New Technology, New Finish?**

The expanded capabilities enabled through new special operations technologies may have freed President Clinton to act against bin Laden by removing some of his primary tactical concerns. However, some of these factors, particularly some high-level strategic factors, would not have been influenced by the presence of these technologies. The factor of organizational stovepiping remains untouched by these new technological capabilities – this was perhaps the most significant factor to influence the way the decision environment was shaped. Yet the ability for the special operations technologies to reduce, alter, or mitigate all important tactical-level factors in some way indicates that these technologies may have made a major impact on the decision environment for President Clinton. These tactical-level technologies impact on a strategic-level factor –
domestic political concerns – further illustrates the point that these technologies could have altered the decision environment.

As the case study mentions, special operations were never fully considered by President Clinton and his advisors as a method of “finishing” bin Laden. Undoubtedly, the presence of these technologies during the time of the decision would have resulted in President Clinton and his team considering special operations more seriously. Further, in deciding whether or not to act against bin Laden, the existence of these technologies would have offered President Clinton and his advisors an improved or expanded special operations option which would minimize collateral damage, keep operators safe, and maximize the likelihood that the direct action raid was successfully completed. It would be mere speculation to definitively say that these technologies would have completely bridged the gap between fix and finish in this instance. However, these technologies would have undoubtedly better aligned the direct action raid option with the factors present in the decision environment and could have compelled them to act.
Mokhtar Belmokhtar (also known as Khaled Abu El Abbas) was an Algerian terrorist leader who operated in various parts of northwest Africa. Belmokhtar was involved with al-Qaeda and terrorist-related activities since the 1990s, eventually rising to be a leader of al-Qaeda in the Islamic Maghreb (AQIM) from the time it first formed in 2006 until 2012, when he left the organization to launch his own jihadist terrorist group, the Khaled Abu al-Abbas Brigade.¹

A native Algerian, Belmokhtar had been affiliated with al-Qaeda since 1991, when he traveled to Afghanistan to receive training from the group.² Upon returning to Algeria, Belmokhtar joined the Armed Islamist Group (GIA), eventually becoming its commander, and conducted dozens of attacks against Algerian security personnel and citizens loyal to the Algerian government.³ He then went on to join the Salafist Group for Preaching and Combat (GSPC), a predecessor for al-Qaeda in the Islamic Maghreb (AQIM). It was in this group that Belmokhtar began his smuggling and kidnapping rackets that would eventually earn the group millions of dollars and contribute to Belmokhtar’s rise to prominence.⁴ Yet, according to General Charles Wald, the European Command (EUCOM) Deputy Commander at the time,⁵ this was also when the US began collecting intelligence on the GSPC, and subsequently, Belmokhtar.⁵ “We tracked [GSPC] every day for a year and a half. In the process, Belmokhtar came up. [He] was basically a cigarette smuggler,” Wald said.

Yet, Belmokhtar’s status as only a “cigarette smuggler” changed in 2003 when he orchestrated an operation that took 32 Europeans hostage in northern Mali.⁶ His efforts earned the GSPC $6 million dollars in ransom payments and demonstrated the threat GSPC and Belmokhtar posed. His ability to take western citizens hostage and finance terrorist groups would earn him a distinction as a terrorist by both the US Department of Treasury and the United Nations in late-2003.

EUCOM’s intelligence efforts to track Belmokhtar led them to a remote training camp in the desert of northern Mali.⁷ US surveillance spotted Belmokhtar at the camp, albeit with some degree of uncertainty. According to General Wald, the group at the camp was doing “… paramilitary stuff. Up to no good,” indicating they were preparing to

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¹ Africa Command (AFRICOM) was not stood up until 2008, so the EUCOM area of responsibility included the African continent.
conduct terrorist attacks. The group was most likely GSPC. EUCOM knew that the threat would persist without US assistance to the Malian government.

**Finish**

Although actionable intelligence was present, EUCOM was unable to take action due to a lack of authorization by the Ambassador of Mali, Vicki Huddleston. There were four offensive options that were developed during this time period that were offered to Ambassador Huddleston in order to finish the rising threat presented by Belmokhtar.

The first option was using B-52s to deliver bombs on the militant camp. However, General Wald viewed this option as the most extreme and unlikely to actually be used. “No chance in hell we were going to do this,” he says. It was merely a “throwaway” option.

The second option was a Tomahawk Land Attack Missile (TLAM) delivered on the target from a distance. However, concerns about the imprecision and possible collateral damage deterred Ambassador Huddleston from approving this option. In *Mission Creep: The Militarization of US Foreign Policy* by Gordon Adams and Shoon Murray, Ambassador Huddleston explains her reasoning:

> “First of all… [You] see some people who look like Arabs out in the desert being trained – but you don’t know who they are. And secondly…the means [are]…so imprecise. When you send ordinance from a great distance – who is going to be there when it lands?…So we sent them back with an answer that there was no way we are doing this.”

The third option was a direct action, special operations raid on Belmokhtar and the terrorist training camp; it would be a clandestine operation to raid the camp and capture Belmokhtar without the Mali and US public knowing what happened. However, Ambassador Huddleston rejected this option as well. Ambassador Huddleston was concerned about the quality of intelligence provided by EUCOM, the political risks of operating in Mali, and whether Belmokhtar was an important enough figure to justify this type of operation.

The fourth option was constant ISR (Intelligence, Surveillance, Reconnaissance) on Belmokhtar with aerial assets and Special Forces on the ground, conditions permitting. General Wald’s preferred option, the operation would consist of constant overhead monitoring with EP-3s (surveillance aircraft) and the insertion of special operators to conduct human monitoring of the situation on the ground, exfiltrating them once the operation was completed. “My opinion was that we needed to take a closer look and have
more active monitoring to figure out what the hell was going on there and develop the intel,” General Wald states. General Wald preferred conducting the ISR without Malian help because he was worried that Malian officials may tip off Belmokhtar and allow him a chance to flee. Civilian US leaders refused any ISR option, claiming Belmokhtar was “Not our business,” according to Wald.

Despite the options presented above, Ambassador Huddleston chose not to authorize any strike or operation. General Wald was infuriated by this choice and attempted to persuade Ambassador Huddleston to rethink her decision. However, the trail soon grew cold and Belmokhtar remained at large in Northern Africa. General Wald remains adamant that the decision not to act was a mistake and a missed opportunity. “We allowed Belmokhtar to become larger than life,” said General Ward in a 2013 interview with Washington Post reporter Craig Whitlock, “He was well within reach. It would have been easy.” The model below illustrates all of the options presented to Ambassador Huddleston.

**Direct Action Decision Model for Mokhtar Belmokhtar 2003**

![Direct Action Decision Model](image)

**From Fix to finish – An Analysis of the Missed Opportunity**

Unfortunately, the failure to act in 2003 did allow Belmokhtar to become “larger than life.” Deemed “The Uncatchable” by French intelligence organizations for his repeated ability to avoid being killed or captured, Belmokhtar would rise to become one of the most important figures in the al-Qaeda affiliate in North Africa. From 2003 until his disputed death in 2015, Belmokhtar netted an estimated $90 million off of ransom
payments from kidnapping hundreds of people (including Westerners). He used these funds predominantly to fund AQIM’s terrorist activities in the region, but also supported various related terrorist factions such as MUJAO, Boko Haram, and Ansaru. Belmokhtar has been directly linked to several major terrorist activities himself, including the terrorist attack on a western-owned gas plant in Algeria which took over 800 people hostage and killed 33, three of whom were Americans. Undoubtedly, Belmokhtar’s business acumen demonstrated in his ability to raise funds and finance terrorist activities greatly contributed to the rise of terrorism in the Sahara region.

While General Wald and Ambassador Huddleston still disagree on the missed opportunity in 2003, they both recognize the event foreshadowed flaws in US strategy towards terrorists in Northern Africa. In order to better understand why no action was taken despite Belmokhtar being in the fixed stage, a multitude of factors that contributed to a misalignment between General Wald’s proposed options and Ambassador Huddleston’s concerns must be analyzed.

Tactical-Level Factors

Intelligence Fidelity: Although General Wald believes that Belmokhtar was in the camp in northern Mali, there were intelligence deficits that caused Ambassador Huddleston to resist any action: (1) she did not believe intelligence was certain enough to confirm the high-level target was Belmokhtar, (2) it’s not clear what the exact level of threat Belmokhtar posed at the time, and (3) it couldn’t be confirmed that the other men in the camp were involved in terrorism activities. Ambassador Huddleston was quoted as saying “First, you don’t know who these people are, and second, it’s a bad idea.” General Wald later agreed with this assessment, stating that any type of raid or direct action against the compound “… wasn’t warranted yet at the time. We needed to figure out what they were up to first. Obviously, in retrospect, things are really clear. But at the time we didn’t know exactly what they were doing.” General Wald sought to address the intelligence infidelity by advocating an option to “… get closer to the activity, figure out their motives, and intercept something if it was going on.” Yet, this ISR option was rejected and the intelligence deficit on Belmokhtar persisted.

Probability of Success: The possibilities of infiltrating the camp without Belmokhtar being there or conducting a failed operation that allowed Belmokhtar to escape were significant factors in deciding not to act against the encampment. Ambassador Huddleston and her team concluded that attempting to carry out a politically sensitive operation in another sovereign country, that could fail to actually find the target or eliminate the wrong target, wasn’t worth the risk. She was worried that an unsuccessful kinetic strike would stir up anti-American sentiment in Mali and beyond, especially if Belmokhtar wasn’t in the camp. Yet, even options that did not involve kinetic strikes
would have severe implications if they were to fail. In regards to conducting ISR, even
General Wald had concerns about EP-3 overhead surveillance, fearing the noise of the
airplane would tip off Belmokhtar and cause him to flee.23 This is largely why General
Wald preferred a SOF team on the ground to monitor the camp.

**Collateral Damage:** While Belmokhtar was a legitimate target, it wasn’t clear what the
level of involvement the other men in the camp had in terrorist activities. Ambassador
Huddleston’s concern was aforementioned in her resistance to both aerial and cruise
missile strikes. She further emphasized these concerns when she stated “[General] Wald
seemed to think you can carry out kinetic strikes without cost.” Ambassador Huddleston
told *Atlantic* reporter Yochi Dreazen in 2013, “But they can radicalize people on the
ground. They do have a cost.”24 General Wald agreed with this assessment, stating “…at
the time we didn’t know exactly what they were doing. Obviously they weren’t just boy
scouts. They were doing something a lot more serious than smuggling with all of the
paramilitary stuff.”25 This is why General Wald affirmed that bombing the training camp
was never a serious option.

**Strategic-Level Factors**

**Strategic Alignment and National Interests:** There was a strategic misalignment between
the DOD and the Department of State (DOS) in understanding what the US national
interests were in the region and how the growing terrorist threat presented by Belmokhtar
and GSPC in North Africa should be handled. This misalignment was evident in the
disagreements between Ambassador Huddleston and General Wald on what action to
take against Belmokhtar when his location was known in Northern Mali. General Wald
favored taking action against Belmokhtar, while Ambassador Huddleston feared the
repercussions of operating in African countries that were already sensitive about Western
military actions in their borders.26 The specific disagreement over Belmokhtar was a
microcosm of the larger division between the DOD and DOS on the strategy for Africa.
After the Belmokhtar incident, Ambassador Huddleston’s assessment was that the
Pentagon was often too eager to take action, while the State Department was too willing
to tolerate a terrorist presence in the region.27 This division and a lack of agreement on
US national interests in the region caused the opportunity to take action against
Belmokhtar to be missed and foreshadowed the continued misalignment that would allow
al-Qaeda to plant roots in the region.

**Context:** One must also consider the broader context of the decision. The US was in the
midst of two major wars in Iraq and Afghanistan. As such, the focus of the US was in the
Middle East. According to General Wald, “EUCOM was not very important at that time.
The emphasis was Iraq and Afghanistan. People humored us, but didn’t really care about
Africa.” The last thing that Ambassador Huddleston wanted was to open up a third front for US military conflict in Africa. This made acting against Belmokhtar even less likely.

**Structural Factors**

*Personalities:* The personality difference between Ambassador Huddleston and General Wald contributed to miscommunications and misunderstandings that further hampered any action against Belmokhtar. Indicative of the difference in their positions, Ambassador Huddleston appeared to be a much more restrained, passive player while General Wald was much more aggressive in attempting to address the threat presented by Belmokhtar. When General Wald’s “throwaway” option (B-52 strike) was leaked to Ambassador Huddleston, a breakdown in communications occurred and the two were unable to come to an agreement on the issue. General Wald alluded to this breakdown when he stated “Because the B-52 course of action leaked, we lost track of the issue. The issue became you military just want to start WWIII in Africa, but that wasn’t the issue. The issue was you have a problem growing in Mali and Mali can’t take care of it, so we need to provide intel.” However, personality differences appeared to hamper any efforts, intelligence or otherwise, and hindered action against Belmokhtar.

The combination of factors above contributed to the missed opportunity against Belmokhtar in 2003. Belmokhtar would continue thriving in terrorist organizations for another 12 years until he was reportedly killed by a US airstrike in Libya in 2015.

**The Impact of New Special Operations Technologies in “Finishing” Belmokhtar**

By understanding both the tactical, strategic, and structural factors that contributed to paralysis in acting against Belmokhtar in 2003, the potential impact of disruptive technologies on the decision environment can be analyzed. This analysis will allow one to deduce whether the application of these technologies would have mitigated Ambassador Huddleston’s concerns and allowed her to approve the finish of Belmokhtar in 2003. This analysis is encompassed in the figure below.
Impact of Technology on the Direct Action Decision Model

**Tactical-Level Factors**

*Probability of Success – Significant Impact*

In this case, stealth technology could have played an influential role in increasing the probability of a successful ISR operation. The risks of operators being discovered in Mali, or Belmokhtar recognizing he was being monitored and fleeing the country, both contributed to the disapproval of ISR on Belmokhtar. Stealth technology could have been a game-changer because it would have made employing special operators on the ground to conduct ISR a more viable option. Special operators could have transported to the camp in northern Mali using vehicles with reduced radar and acoustic signatures, either through the air or on the ground, which would allow them to get close to Belmokhtar while remaining undetected. Furthermore, reducing each operator’s visual signature through the use of individual stealth devices, such as stealth cloaks, would have allowed these operators to remain on target while significantly reducing their risk of being discovered. As General Wald stated, “…sending in some [special operator] to do a standoff and observe them is always problematic in case they get caught,” but he still concluded that an operation where you could “insert the operators, have them conduct the surveillance operation, and exfiltrate them safely” would have been ideal. Stealth technology would have provided this ideal capability and could have mitigated the risks enough to garner Ambassador Huddleston’s approval. This, in turn, would have increased the intelligence for future operations and could have enabled more action against Belmokhtar in the future.
Intelligence Fidelity - No Impact

While the technologies would have increased the viability of the ISR option, which could have provided robust intelligence for future operations, they would not have enhanced the intelligence Ambassador Huddleston was considering prior to deciding to finish Belmokhtar in 2003. Any impact these technologies would have on intelligence, such as increasing the viability of an ISR option, would only increase post-operation intelligence, but would have no impact on pre-operation intelligence. The fix on Belmokhtar would have been the same, regardless of these new technologies.

Collateral Damage – Significant Impact

Stealth technology could have also influenced Ambassador Huddleston’s concerns regarding collateral damage. While Belmokhtar was a high-value target, the involvement of the other men in the camp in terrorist-related activities wasn’t clear. Stealth technology would have been of further value to both Ambassador Huddleston and General Wald in that it would have allowed special operators to infiltrate the camp and discern the activities of the other men. It would have allowed for a better assessment of civilian exposure and subsequent reduction in harm to civilians if a kinetic strike were to occur. In addition to stealth, non-lethal technologies could have also enhanced the menu of options presented to Ambassador Huddleston. Non-lethal technologies could have made a raid on the camp in northern Mali a more viable option as it would have reduced any potential collateral damage. Furthermore, it could have allowed for the men at the camp, including Belmokhtar, to be captured and interrogated in order for the US to better understand the threat GSCP and eventually AQIM posed in the region.

Strategic-Level Factors

Strategic Alignment and National Interests – Moderate Impact

Stealth technology could have also had a moderate impact on the strategic alignment between the DOD and DOS. It could have provided a bridge between what Ambassador Huddleston assessed as a Pentagon too willing to take action with a State Department too willing to tolerate a terrorist presence. It would enhance General Wald’s ISR option, thereby providing a medium between doing nothing and conducting a large-scale kinetic attack. By allowing special operators to gather intelligence on target, stealth technology would increase the amount of information being disseminated to both departments and allow for a better understanding of the threat Belmokhtar (and eventually AQIM) posed to the region. This flow of information could have enhanced the dialogue between the two departments and contributed to greater action against Belmokhtar. Furthermore, assuming the stealth technology allowed for operators to conduct these ISR operations while remaining undetected, State concerns that African countries would be weary of US military operations in their borders would be negated. These countries would likely never
know US operators were in the region unless the threat Belmokhtar posed caused an escalation of military action.

Context – No Impact
These technologies would have not impacted the context in which this decision was taking place. They would not have altered the fact that the US was focused on Iraq and Afghanistan, nor the fact that Ambassador Huddleston did not want to potentially open up a military conflict in a third location.

Structural Factors

Personalities – No Impact
None of the aforementioned technologies would have been enough to influence the unique personalities of the key decision makers involved. Ambassador Huddleston’s passivity paired with General Wald’s perceived aggression contributed to a breakdown in communications that could not be influenced by technology.

New Technology, New Finish?

The addition of disruptive technologies, specifically stealth, certainly makes the case for acting against Belmokhtar in 2003 more compelling. The capabilities provided by stealth technology address nearly all of the risks associated with Ambassador Huddleston’s decision not to act in some degree, with the exception of intelligence fidelity. Yet, by increasing the probability of success, stealth technology could have been influential in the decision to approve or disapprove ISR operations against the camp. It could have allowed operators to infiltrate the camp, assess the threat, and exfiltrate, all while remaining undetected by both Belmokhtar and surrounding African governments. This would have fostered a greater understanding of the threat Belmokhtar posed and increased intelligence fidelity for future operations in the region. Yet, despite the significant impact of these technologies on the numerous concerns held by Ambassador Huddleston, they would have changed the one factor most important in the missed opportunity in 2003: Ambassador Huddleston herself.

In “finishing” Belmokhtar in 2003, the most important factor was the one that technology couldn’t impact: personalities. Jeremy Bash, the former Chief of Staff of the Department of Defense and CIA, stated that the brand of the decision maker (i.e. tough vs. compassionate) is an important consideration in making these types of decisions. Fear of military escalation in Africa, the perceived immorality of interfering in the affairs of other sovereign countries, and a perceived recklessness of General Wald all prevented Ambassador Huddleston from approving any operation against Belmokhtar. General Wald takes some of the blame for this, stating “[EUCOM] is probably to blame too because we didn’t explain [our motives] very well.” Thus, in this case, while the tactical
concerns of Ambassador Huddleston may have been well-addressed, the larger strategic-level concerns were not. This indicates both the ability of the technologies to address the tactical-level factors in the decision environment and the fact that tactical factors alone will not sway the decision calculus in all cases.

While the proposed disruptive technologies would have mitigated many of the risks associated with General Wald’s preferred option, it cannot be inferred that these technologies would have been influential enough to change Ambassador Huddleston’s decision to not to act against Belmokhtar in 2003. However, these technologies do allow decision makers such as Ambassador Huddleston to not be as focused on tactical level factors in the decision environment and instead examine important broader strategic level factors in deciding whether or not to finish Belmokhtar.

Lessons Learned from Case Studies

These case studies were useful in helping to frame what decision makers are most concerned about. They also provide two specific instances where the options presented were mismatched with the factors present in the decision environment, ultimately resulting in inaction against an emerging terrorist threat. The result of this inaction in each case was costly for the US. From these two case studies, three general takeaways may be drawn.

First, the technologies outlined in Section IV can have an important, though limited, impact. To suggest that technologies would alter every outcome and spur decision makers to act when they otherwise would not have ignores the complexity of the decision environment. There are a myriad of factors that go into a decision maker’s calculus (as is the subject of the remainder of this paper). Technology is unable to impact all of these factors. However, the ability for these technologies to impact some tactical and strategic-level factors is very important.

Second, no two decision makers are the same. These case studies reveal the differences between President Clinton and Ambassador Huddleston in their primary concerns. The personalities of the decision makers are an inseparable part of the decision process, and they can have an important impact on the ultimate decision that is made.

Third, no two decisions are the same. In approving a special operation outside of a combat zone, different factors come to the fore, and the specific weightings of the decision factors in the decision calculus are also different. As a result, the impact of these technologies is likely to be different for each decision.
Section VI: The Decision Environment of Tomorrow

The analysis provided by the two previous cases is useful insofar as it provides an example of how disruptive special operations technologies might have impacted decisions in the past. However, these technologies were not available then, so the counterfactual is only as useful as the lessons that can be drawn from it. Thus, it is important to conduct the same analysis for future factors – when the technologies will likely become available. The impact of these technologies on the approval process for special operations is important to understand in the future domestic and international environment as well.

While not an exhaustive list, the short-term future of the domestic and international environment is likely to be painted by five important features. First, the post-9/11 institutional knowledge, experiences, trust, and relationships formed within and between executive organizations is likely to deteriorate as the US withdraws from the large ground wars in Iraq and Afghanistan.¹ Much of the organizational stovepipes present in the bin Laden case study covered in the previous section were removed following years of war in Iraq and Afghanistan. However, as the US moves further away from these wars, these stovepipes may be built back up again. Second, advanced technologies, including military technologies, will be increasingly diffused around the world as communications and the economy continue to globalize. Thus, as previously mentioned, the need for the US military to continue to make technological innovations will continue to grow. Third, under current policy, the Congressional Budget Office projects that defense spending, as a percent of GDP, will continue to shrink as mandatory spending continues grow.² This places an increased impetus on developing highly effective, low cost technologies. Fourth, the US will likely continue to be reluctant to have a heavy, sustained military footprint in the Middle East, following over a decade of wars there. Fifth, non-state terrorist groups will continue to emerge and strengthen in failed and weak states around the world. These groups pose persistent and growing threats to the US homeland and US interests internationally.

The special operations capabilities of the US military – specifically direct action raids – will continue to play a central role in the US’s foreign policy moving forward in at least three vital roles. First, special operations will likely be a major component of any strategy against ISIL. In a statement to the House Armed Services Committee on December 1, 2015, Secretary of Defense Ashton Carter outlined the increased role of special operations forces in the fight against ISIL in both Iraq and Syria. This includes sending more special operations forces to Iraq and Syria to conduct an expanded suite of operations. “In full coordination with the government of Iraq we are deploying a specialized expeditionary targeting force to assist Iraqi and Kurdish Peshmerga forces to
put even more pressure on ISIL. These special operators will over time be able to conduct raids, free hostages, gather intelligence, and capture ISIL leaders,” Secretary Carter stated. “This force will also be in a condition to conduct unilateral operations in Syria.”

As ISIL continues its fight against the US and the West, special operations will continue to be one of the primary fighting forces the US will use. In addition to training and equipping forces in Iraq and Syria, special operations will be able to conduct greater amounts of direct action and hostage rescue operations in the fight to degrade and destroy ISIL.

Second, special operations will continue to be important in combatting other international threats of terrorism, wherever they may be. This includes areas like northern Africa and Afghanistan. In the wake of the terrorist attacks in San Bernardino, California in December 2015, President Obama addressed the nation regarding the US’s continual fight against terrorism, saying, “Our military will continue to hunt down terrorist plotters in any country where it is necessary.”

Special operations will continue to work around the globe to conduct direct action raids to kill or capture terrorist leaders in order to defeat and diminish terrorist networks and prevent terrorist attacks against the US.

Third, special operations will continue to be critical in rescuing American and allied hostages around the world. In June 2015, President Obama announced the aforementioned presidential policy directive (PPD-30) and executive order updating and reinforcing the US’s hostage policy. “I’m making it clear that our top priority is the safe and rapid recovery of American hostages. And to do so, we will use all elements of our national power,” President Obama explained, “I am reaffirming that the US government will not make concessions, such as paying ransom, to terrorist groups holding American hostages.”

The recovery of American hostages from terrorist organizations around the world will continue to be performed primarily by special operations forces.

The new and enhanced special operations technologies outlined in Section IV could have an impact on the decision-making process to approve special operations within these roles. To fully understand what impact they might have, an analysis must be performed to determine what factors may be present in the decision environment. Many of these factors will be similar to the ones illuminated by the two historical case studies. Some previously mentioned factors are absent, while others are new. As previously mentioned, this is also because no two decision environments are identical. In each decision, some factors may be more important than others, and some factors may disappear altogether. However, in the approval processes in the foreseeable future for direct action raids, several tactical, strategic, and structural factors are likely to be considered by the decision maker. Information provided through interviews from current and former high-level government officials who were close to the approval process for
these types of operations is heavily drawn upon in developing an exhaustive list of these factors.

**Tactical-Level Factors**

More than ever, decision makers are highly interested in the specific tactics of the operation they are considering approving. Tom Donilon, President Obama’s National Security Advisor from 2010-2013, discussed his experiences in dealing with the tactical-level factors inherent in special operations:

“I do think that you do see quite close attention paid to the specific [operations] by senior decision makers, because the risk is so high. The decision makers again want to look at the risk, they want to look at the potential danger to noncombatants, they want to look at the prospects of success, they want to look at specific steps taken to mitigate unforeseen barriers or circumstances, an exfiltration plan, obviously additional support, additional resources or capabilities in support of the mission should it run into difficulty, all those things are looked at quite carefully by senior civilian decision makers.”

This is because tactical level-factors have strategic-level implications that extend beyond the operation itself. As Admiral William McRaven, the former commander of JSOC and SOCOM, suggested, “In our missions, there is no such thing as tactical risk without strategic risk when you are outside the declared theater of war.” As such, tactical-level factors are still extremely important in the decision environment, and will likely continue to be so in the future.

**Intelligence Fidelity:** Speaking about special operations decisions that she was involved with, Michèle Flournoy said that one of the most important factors was “the quality and robustness of the intelligence. Do we really know who we were talking about and how confident [were we]?” Michael Morell agreed, saying that “You have to know who you’re looking for, you have to know where you can find them, and you have to have eyes on for a period of time…that you’re then able to act on.” Thus, in deciding to approve a special operation, the degree to which high-quality, actionable intelligence can be gathered and utilized remains essential.

**Probability of Success:** “To me, by far the most important factor was whether or not the mission objective would succeed,” says Jeremy Bash. In determining whether or not a direct action raid should be approved, decision makers are highly concerned with the prospects that the operation is able to succeed. As the above quote by Donilon eludes to, decision makers want to have a clear and specific understanding of the tactics that go into an operation, so that they can make an evaluation on the likelihood that it will succeed in
killing or capturing the terrorist leader. General James Cartwright, former Vice Chairman of the Joint Chiefs of Staff, states that in one particular decision he was involved in, certainty that the operation will be successful “trumped everything else.” Thus, more than ever, the specific concept of operation and the calculated probability that it will be successful is a vital factor in the decision-making process.

Logistical Difficulties: “Staging locations and enabling infrastructure are really important, not only physically, but also politically with the host nation” said Admiral James Winnefeld, the former Vice Chairman of the Joint Chiefs of Staff. Logistical difficulties are closely tied to the probability of success for an operation. In Admiral McRaven’s experience, while the details of the logistics may not be discussed at the senior-most decision-making levels, the logistics can ultimately have a major impact on how the operation is viewed by the decision maker. As logistics get more complicated, the operation is viewed as less likely to succeed, making approval ultimately less likely. Moreover, the more parties involved, the more likely that the secrecy of the operation will be compromised, an important consideration according to Colonel Matt Braman, the Special Assistant to the Chief of Staff of the Department of Defense.

Collateral Damage: In his speech at the National Defense University, President Obama outlined the standard for collateral damage for US drone strikes. “There must be near-certainty that no civilians will be killed or injured - the highest standard we can set.” As Donilon explains, while this speech was focused on drone strikes, “what it was really about was the circumstances under which the US would take lethal action against terrorist groups outside of war theaters.” Thus, collateral damage is a major factor in deciding whether or not to approve direct action raids by special operations outside of a combat zone. As Morell states, “In my experience, sitting in the [Situation] Room, where these decisions are made, the overriding concern is collateral damage.” Bash agrees, saying “the certainty in which we could conduct an operation in which there were no noncombatant casualties” was weighed very high in past special operations decisions he was involved in. Concerns surrounding collateral damage continue to be significant factors in current decision environments for approving special operations.

Risk to Force: According to Admiral McRaven, who was in charge of planning and briefing numerous special operations at the highest levels, risk to force is a serious consideration in the decision environment. “None of these folks want to see a soldier, sailor, airman, or marine get killed,” said McRaven. “They are always concerned with [risk to force].” Colonel Braman said that risk to force is the “number one concern” for senior decision makers in the DOD. A current senior administration official also listed risk to force among his top concerns. Admiral Winnefeld noted that risk to force “gets a lot of attention in briefings about a special operation. Decision makers just want to
understand what the risks to the force really are and how they can be mitigated.”

However, some disagreed. General Cartwright stated that risk to force “really isn’t in the calculus” for the decision maker. Admiral Michael Mullen, former Chairman of the Joint Chiefs of Staff, explains, “there’s an understanding that the risk to life and limb could be high, there’s an expectation within the community that it’s what we do for a living and that we’ve been doing it for a long time and doing it exceptionally well.”

Thus, depending on the perspective of the decision maker or one of his or her key advisors, the degree to which risk to force is weighed in the decision environment can fluctuate.

**Strategic-Level Factors**

Also essential are factors that are found at the strategic level. These factors are often not independent from the tactical-level factors, but they are focused more broadly on higher-level issues such as policy, strategy, and politics.

*Importance of the Objective:* The decision maker must first make a strategic-level assessment of the importance of the target and weigh the benefits of approving an operation in pursuit of the target versus the potential costs of this approval. The higher the strategic-level importance, the greater potential risk, both tactical and strategic, the decision maker is willing to accept. As Donilon notes, “If it’s some second-level malign actor, the decision maker is likely to want to run less risk in that circumstance than he or she would in the context of taking down bin Laden, where we were willing to run substantial risk given the strategic nature of the outcome.”

*National Interests:* According to Donilon, an essential question that any decision maker must answer in deciding to approve a special operation is, “Is it in the US’s interests to operate through special forces in this kind of operation in this area of the world?” This includes several components: “Who are you operating against? What’s the nature of the threat? What are the consequences of us undertaking this action to our broader interests, including our relations to this country or in this region?” The answers to these questions, as Admiral Mullen says, are all “geography and time dependent.” Any special operation must fit into a larger regional or global strategy and policy, and a decision maker must keep this in mind during the decision process.

*Legality:* The legal basis with which the operation is being conducted is also important. According to a current senior administration official, a top concern of any counterterrorism operation outside of a combat zone concerns the legal authorities. Decision makers want to have answers to the questions, “what are the legal authorities? What legal authorities do we have in place to take action in that country? Do we have the
host nation’s consent? If so, how was that obtained, is it deemed to be credible and reliable? And if not, then under what authorities, either vested in the president or international law could we take action?”

This highlights two of three legal concerns that decision makers must take into account. The first is domestic legality, concerning the ability of the President to legally authorize the operation. For covert or clandestine operations, this is usually a minor concern. The second is international legality, which deals with the potential violation of the sovereignty of another nation in conducting the operation. Complications with international legality can “complicate our ability to act,” said the senior administration official. “It doesn’t preclude it, but I think that it can lengthen the deliberative process at times.”

Thus, host nation consent, tacit consent, or refusal to consent for the special operation is important. The final legal concern is prosecutorial. Admiral Winnefeld stated that this concern must be considered whenever there is a potential for capture. “Where are you going to take the bad guy after you capture him and does the place you’re taking him have any kind of jurisdiction or desire to prosecute that person, and a legal system that meets international standards?” said Admiral Winnefeld.

International Political Perceptions: Apart from international legality, other countries’ perception of the US acting unilaterally outside of a combat zone in this fashion may also be considered in the decision. Admiral Winnefeld also found this concern to be important in the decision environment: “Is this the first time we are going to have boots on the ground in this particular country and what does that mean? Domestic political considerations aside, the international legal and political considerations of initial action in a country could be far reaching, and should at least be contemplated before an action is taken.”

Decision makers must also weigh the perceptions of other nations in the region and around the world when deciding to approve a special operation or not.

Domestic Political Concerns: As in many foreign policy matters, the President is concerned with the American public’s perception. As Bash notes, this often simplifies to “whether or not a…President looks like they are tough, responsible, resolute, in charge, forward leaning, or if they look vacillating, weak, inept.”

When deciding whether or not to approve a special operation, the President must always consider the potential political consequences and how this could affect his public political image. This may not be something seen by others, but it is certainly something that is always in the back of his mind. “You don’t talk about the politics of it in the room, but he’s thinking about it,” says Morell. “He’s going to talk to his national security advisor about it and his political people about it and absolutely politics are going to come into it, and are the American people going to support what I am doing here or not?”

Special operations can have strong political ramifications if they fail, as was seen in the failed Iranian hostage rescue attempt in 1980 and others. Admiral Mullen, speaking on one high-level direct action raid
he was involved in, said that “had [the target] not been there that night… it would have been very difficult for the President politically. This was just before the ’12 election… I didn’t see that much in play, that was just a fact.”

**Context:** Colonel Mark Mitchell, the former Director of Counterterrorism for the National Security Council, discussed the importance of context in any special operation outside of a combat zone. Important questions that he brought up were whether the US has set a precedent for executing special operations in this area, and what other military operations were going on in other parts of the world. While the US can focus on numerous areas at one time, it is likely to concentrate its attention in one specific area at a time. Also important is the current momentum towards or against action. Immediately following the September 11th attacks, the willingness and ability to get a special operation approved was invariably different than it will be in the years to come.

**Structural Factors**

Lastly, structural factors which relate to the way that a decision environment is formed are examined. These structural factors concern the procedures, institutions, and personal interactions that can contribute to a decision.

**Personalities:** Individuals value things differently, and as such, various factors are weighed differently in the approval process. Often times, the priorities of the decision maker and what is important are not entirely obvious until after the decision is presented. “You’re always dealing with a person. Motivations are diverse as there are people,” says Cartwright. The challenge in the decision process is “trying to understand what it is that is important to [the decision maker]” so that credible options can be formed to address whatever is most important. Both Cartwright and Morell also mentioned the major impact that key individuals and advisors can have on the decision maker in swaying his decision one way or another in deciding to approve a special operation. According to Morell these individuals’ personalities are just “a fact of life,” but can ultimately have a tremendous impact on whether or not a special operation is approved.

**Speed of Approval:** Admiral Mullen was highly concerned with how quickly actionable intelligence can become outdated. Thus, he believed that the most important factor in the decision environment was the speed with which an operation could be approved, and ensuring that the National Security Council “could get through the [approval] process as rapidly as possible, because targets are fleeting.” Similarly, General Cartwright found that “the problem is latency of authority to action.” In a situation where intelligence is changing rapidly and intelligence can go stale quickly, the ability to have a rapid approval process is essential to the decision to conduct a successful special operation.
Organizational Stovepiping: As John Burnham suggested, the US is currently moving “further away from a period of force integration with deployments of multi-thousand person task forces.”\textsuperscript{42} The number and scale of operations in the near future is unlikely to be comparable to that of the past decade in Iraq and Afghanistan. “When you look at the volume of ops we’ve had in the last however many years versus what’s coming up now, there will be inherent risk increase tied to the lack of frequency of these kinds of ops,” says Admiral Mullen.\textsuperscript{43} As a result, the stovepipes that were broken down between the various departments and agencies of the US government have the potential to be built back up. “I do think [that is] one of the unfortunate results of us limiting our military overseas operations,” agrees Jeremy Bash. Reflecting on the past fifteen years of operations in Iraq and Afghanistan, he says, “One of the side benefits is that [they] did break down a lot of stovepipes. And I fear that we may find at the start of the next conflict we may have forgotten some of those muscle movements.”\textsuperscript{44} The experiences, trust, and relationships developed between organizations over the past decade and a half of working together are likely to dull over time, decreasing the US’s ability to effectively conduct these operations moving forward.

These factors can all contribute to whether or not a special operation is approved. Because each decision is unique, the exact weighting of each of these factors will vary considerably, and there may also be additional considerations not mentioned that could come into play. Ultimately, it is important to understand these factors so that when an opportunity to act against an emerging terrorist threat presents itself, what is valued in the decision process is known and can be addressed as best as possible through special operations. The degree to which disruptive special operations technology is able to mitigate some of the above-mentioned factors is the focus of the next section.
Section VII: Impact of Technology on Future Decisions

Similar to the two case studies in Section V, the impact of new special operations technologies on the tactical, strategic, and structural factors in the decision environment will be analyzed. Within each of these tactical, strategic, and structural groupings, an assessment on the impact of disruptive technology on each specific risk or concern in the decision environment is provided. The final assessments of the impact of technology on these concerns will fit into one of the following three categories: (1) Significant, (2) Moderate, or (3) No impact. Significant assessments are those that eliminate or severely mitigate the decision maker’s concern. Moderate assessments are those that address the decision maker’s concern to some degree, but the concern is likely to persist even with the adoption of the new technologies. Those designated as no impact are concerns that would likely persist in their entirety, regardless of the adoption of the technologies outlined in Section IV.

Tactical-Level Factors

Risk to Force – Significant Impact

Although there seems to be some disagreement among high-level officials about the importance of risk to force in conducting special operations, the impact of disruptive technologies in mitigating this risk is undoubtedly substantial. The advanced body armor technologies aforementioned will directly reduce the risk to special operators conducting direct action and hostage rescue operations. As Admiral McRaven said, “if you can convince the decision makers that…[operators] have full protection against [small arms fire] and they’ve got heads-up displays, and the chances of them getting hurt, short of a 500 lb. IED are pretty slim, it may improve your chances.”¹ In addition, stealth technologies further mitigate this risk by reducing unexpected contact with enemy forces and allowing the advantage of deciding when and how to engage these forces. The combination of these technologies will alter the decision environment by aligning the viewpoint of all these high-level officials; it will significantly mitigate risk to force as a factor in the decision. In other words, risk to force will be reduced to such a degree that it will become a less decisive factor in the approval process of special operations.

Probability of Success – Significant Impact

Contingent on actionable intelligence, disruptive technologies could have a crucial impact on increasing the probability of success in special operations. As mentioned in Section IV and Appendix I, stealth technology is critical for achieving relative superiority in an operation, a key component for success. Achieving this superiority increases the operators’ ability to dictate the circumstances of an operation, thereby increasing the likelihood of a successful operation. Whether it is gaining a decisive advantage early in a conflict or providing the opportunity to discover new information that might jeopardize
the entire operation, stealth technologies can lead to vast increases in the probability of success in most operations. Decision makers are often hesitant to approve operations because they fear a failed operation could result in the escape of a high-value target or the execution of American or allied hostages. Barring exceptional circumstances, stealth technology could fundamentally alter the way decision makers view the risk of failure by putting special operators in the best possible position to succeed. This, in turn, could increase the probability of success and reduce the impetus to focus on this factor in the decision environment.

*Logistical Difficulties – Moderate Impact*

Similar to the argument made in the above Usama bin Laden case, the combination of these technologies would allow for decision makers to be more confident that the operation will succeed and that no US personnel will be hurt or killed. As such, the contingency force requirements for any operation may diminish both in size and importance. These contingency forces are still vital in the event that the operation does not succeed or something unforeseen goes wrong. Yet decreasing the likelihood that something will go wrong necessarily reduces the impetus to focus on a large contingency force. As such, logistics may be simplified by reducing the number of US military assets involved with the planning and execution of the operation.

*Collateral Damage – Significant Impact*

Decision maker’s concerns regarding collateral damage in hostage rescue missions will be altered by two factors: (1) specific non-lethal technologies and (2) through the combination of all technologies outlined in Section IV in making rescue a more viable option. Non-lethal technologies, by their very nature, mitigate collateral damage in any given operation. These types of technologies allow operators a less-than-lethal option in neutralizing threats. This directly reduces collateral damage in an operation by preventing bad intelligence or user error from causing the death of an innocent civilian. In addition, the combination of all three disruptive technologies make special operations the most palatable option for any decision maker concerned with collateral damage. Unlike airstrikes or cruise missiles, special operators utilize precision to capture or kill high-value targets. Technologies that allow an operator to proceed to a target protected and undetected allow for greater precision in eliminating the target – and only the target – thereby reducing civilian casualties. These technologies allow special operators discretion that cannot be matched by a bomb or cruise missile. They also enhance the viability of special operations as an option in dealing with threats and this, in turn, reduces the potential for collateral damage.
Intelligence Fidelity – No Impact

The specific special operations technologies analyzed in this paper are unlikely to have an impact on the robustness of intelligence prior to an operation. The technologies analyzed are not directly ISR-related and do not address the concerns a decision maker may have about the quality of intelligence. While the technologies may create more leeway for intelligence gaps by reducing the risks normally associated with these gaps, such as risk to force or risk of failure, these technologies do not address the intelligence infidelity in itself. Thus, while these technologies may sway a decision maker to be more risk-seeking when faced with a lack of intelligence, they will not directly provide that intelligence and address the decision maker’s concern.

Strategic-Level Factors

Importance of the Objective – Moderate Impact

As mentioned in the previous section, the strategic-level importance of the target often correlates with how much risk the decision maker is willing to take. Decision makers are willing to tolerate high levels of risk for high-value targets, and consequently, have a lower risk tolerance for less-valued targets. While the technologies outlined in Section IV do not change the importance of the target, they change the weight of that importance by mitigating tactical risk. In other words, the importance of the objective becomes less significant in the decision environment because there is no longer a need for risk justification. Less important objectives become more palatable targets for the decision maker because the tactical risks are reduced. The decision maker does not have to ensure the target is of extreme importance because that decision maker is not subjecting special operators to extreme risk – this risk is mitigated by these new technologies.

National Interests – No Impact

While these technologies mitigate tactical risk and make the use of special forces a more viable option in most situations, they do not have any impact on US national interests. These technologies do not fundamentally alter where and when the US should engage global threats. If it is in the US’s national interests to operate against a given threat, these technologies will better allow action against that threat. However, if it is not in the interest of the US, the decision maker will not approve the operation, regardless of the risk assessment.

Legality – No Impact

The legality of operations will not be changed by the new technological capabilities outlined in Section IV. Special operations will still be subject to domestic and international law, regardless of the capabilities provided by new technologies. Further, by increasing the likelihood that the target will be captured through the availability of non-lethal weapons, prosecutorial legality concerns are likely to increase. These technologies
do not change international law, and a special operation outside of a combat zone could still be viewed as a violation of sovereignty, regardless of its precise, successful outcome.

*International Political Perceptions – Moderate Impact*
These technologies are likely to have some impact on other countries’ perceptions of the US’s actions. Specifically, by reducing the likelihood of the mission failing and turning into a much larger debacle, the US is likely to be viewed more favorably. Moreover, by reducing the collateral damage and civilian deaths resulting from a special operation, the international community may be more comfortable with the US’s actions.

*Domestic Political Concerns – Moderate Impact*
The mitigation of tactical risk through these technologies could be influential in alleviating the domestic concerns surrounding special operations by mitigating the risks that would foster a negative perception of the decision maker. There would be less chance of casualties abroad, less chance of unnecessary collateral damage, and less chance of catastrophic failure in the operation. More so, these technologies could enhance the domestic perception of high-level decision makers by allowing them to be more aggressive in ensuring the security of the American people. Thus, the disruptive technologies could address many of the decision maker’s worries about domestic politics. However, decision makers do not operate in a vacuum and there are numerous other domestic political concerns that a decision maker has to account for, many of which are not affected by the disruptive technologies.

*Context – No Impact*
Obviously, these technologies are unable to impact the context with which special operations are likely to be employed in the future. As the previous section outlined, the international environment that the US is faced with in the future may require an increase in the approval of special operations outside of combat zones, but this is independent of these technologies. Moreover, while these technologies may make the approval of operations more palatable to decision makers, their inability to affect the context again shows their limitations and suggests that in some cases, technologies may not be enough to cause decision makers to act.

*Structural Factors*

*Personalities – No Impact*
The decision environment is a combination of risk assessments, formal and informal structures, and human interactions and personalities. While these technologies can influence the risk assessments, it will have little impact on the fundamental beliefs of the people in the room. The technologies can help improve or expand the menu of options presented to decision makers and help illuminate the factors most important to them, but
it cannot rid the process of the influence of individual personalities. For better or for worse, as long as the decision process is one carried out by humans, personalities will always play an important role. The capabilities provided by these technologies will do little to change this fact.

*Speed of Approval – No Impact*

The organizational hierarchy, through which the decision to approve or disapprove special operations must go, will not be changed by the expanded tactical capabilities provided through these technologies. While these technologies mitigate tactical risk and may make it easier for the decision maker to approve any given operation once it reaches his or her desk, they will have little impact on the speed by which the decision actually gets there. These technologies improve or expand the menu of options provided to a decision maker, but do not address the latency of authority inherent in getting these operations approved.

*Organizational Stovepiping – No Impact*

The technologies outlined in Section IV will likely have no impact on the return of organizational stovepiping in the near future. Moreover, technology is not a substitute for experience. These technologies are only as useful as the manner in which they are employed and the operators who use them. The experience, trust, and relationships that the special operations community has developed with other government organizations over the past decade and a half is at risk of decreasing in the future. This will occur irrespective of these technological innovations.

*Synthesis of Factors: The Overall Impact on the Decision Environment*

As mentioned earlier, senior decision makers pay close attention to the specifics of special operations because of the tactical-level risk involved. While different decision makers may have different opinions about which tactical risks are the most critical, the conglomerate of tactical risk is nearly always an important factor in the decision environment. These technologies allow for many of these tactical-level risks to be considered. This has two important implications on the decision environment. First, mitigating these risks alleviates many important tactical-level concerns of the decision maker. As Admiral McRaven said, “When you’re presenting technology that can reduce the tactical risk it always puts the decision makers in a more comfortable position to make the right decision.” Second, mitigating these risks will allow decision makers to focus on the more critical factor in the decision environment: is it in the US’s interest to conduct this operation? These decision makers are no longer as restrained by tactical risk and have greater freedom to pursue operations that would advance US national interests. This allows the US to pursue operations that would normally be rejected, either because the objective did not justify the tactical risk or the fear of domestic backlash.
To revisit the Direct Action Decision Model formed in Section III, the ability of these new special operations technologies becomes even more clear. Here, the options formed and presented by organizations are improved or expanded given the new capabilities introduced through the technologies developed in Section IV. These expanded options then feed into the decision environment. Within the decision environment, the decision maker need not focus as much on tactical factors (as indicated in italics and a dashed line in the model below) as on other ones. He or she is therefore able to make a decision that focuses on important strategic factors, such as whether or not pursuing the target is in the national interests of the US. Structural factors also remain part of the decision environment. As a result, this may not produce a different outcome for every decision, but it does produce a decision environment wherein decisions are made with an increased focus on the strategic objectives of the US, and a decreased focus on the tactical risks that go along with any special operation.

**Impact of New Technologies on Future Direct Action Decision-making**

However, the US must ensure that these technologies are only enabling operations that are critical for America’s national security. As Donilon states:

“Just because the US has the technology to go in with far less risk to its forces doesn’t mean that it should. There are a lot of bad things going on in the world, but it doesn’t mean that the US is going to use special operations forces against all of those bad things. There has to be a threshold consideration as to what the threat is to the US.”

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While the US could neutralize threats that it previously couldn’t with these disruptive technologies, it doesn’t necessarily mean that it should. A strong understanding of US national interests, along with an enhanced degree of restraint, are necessary in employing these technologies in future operations.
Section VIII: Conclusion and Summary of Findings

This paper developed a model for the decision-making process for the approval of direct action strikes. It then examined three new and emerging special operations technologies that would improve tactical-level capabilities for special operations direct action raids. Two “missed opportunity” case studies were presented to help understand what factors were most important in the approval of direct action strikes and why the options presented, including direct action raids, did not adequately address these factors. Within these case studies, the paper analyzed the impact that these technologies would have on the decision to not conduct a direct action raid. This paper also generated an exhaustive list of factors in the decision environment that will shape the approval process for direct action strikes moving forward. Finally, using analysis similar to the case studies, the paper projected the impact of these special operations technologies on factors within the future decision-making environment. This paper asserts that the special operations direct action raid, buttressed by these new technologies, can help bridge the gap between the fix and finish stages of the targeting cycle, in order to deter or defeat terrorist organizations that are threatening US security and national interests. Eight key findings can be drawn from this paper.

(1) Nearly every component of special operations has vastly improved over the past fifteen years, in part due to the experience gained from fighting terrorist organizations around the world. This includes the force capabilities, tactics, technologies, and the decision-making process for special operations. However, there are still important improvements that can be made. The successful implementation of new and emerging special operations technologies is one such area. There are also ways that the decision-making process could be improved, including addressing some of the structural factors outlined in this paper.

(2) Each decision to conduct a direct action strike outside of a combat zone is unique. As such, the weighting of the factors within the decision environment may be different. Some factors may be vitally important or even “deal-breakers,” while other factors may be less important or nonexistent within the context of the decision. Additionally, each decision-maker is different, and the decision-maker’s unique valuing of different factors can have a tremendous impact on whether or not a direct action operation is approved.

(3) Tactical-level factors matter greatly in considering the approval of a direct action strike outside of a combat zone, especially a special operations direct action raid. Decision-makers are highly concerned with the specific concept of operations for
a planned direct action raid, and factors such as risk to force, intelligence fidelity, collateral damage, and probability of operation success play a large role in determining whether a direct action raid is approved.

(4) As the two case studies examined in this paper reveal, a mismatch can occur between the concerns of the decision-maker and the menu of options presented to him or her. This can lead to the disapproval of a direct action strike and result in inaction. New tactical-level technologies, which will improve the capabilities of the special operators conducting direct action raids, will likely have a major impact on many of these decisions, and, in some cases, could nudge decision-makers to approve a special operation direct action raid to finish the target. As Michael Morell noted, “if DOD could come to the table… and say, here’s the objective, here’s the [concept of operations] to action the objective, here’s the risk to force, and here’s the risk of collateral, and by doing A, B, and C I can drive that risk to almost zero, you’d have a much better chance of getting a ‘yes.’”1 However, the impact of these technologies is limited and there are some factors that are not addressed by their added capabilities. Moreover, because each decision environment is unique, it cannot be definitively stated that these technologies will have an impact on all decisions.

(5) New special operations technologies would have the greatest impact on the tactical-level factors that are considered in the decision environment. These technologies would directly reduce considerations around several tactical-level factors, such as risk to force, collateral damage, and probability of success. They could also indirectly reduce considerations for other tactical-level factors, like logistical difficulties.

(6) New special operations technologies could also have an impact on strategic-level factors within the decision environment in two ways. First, tactical-level factors can often have strategic-level implications when considering a direct action strike outside of combat zones. Thus, some strategic-level factors, like domestic political concerns and international political perceptions, may be directly impacted by these technologies. Second, by mitigating concerns around many tactical-level factors, these technologies will allow decision-makers to focus more on strategic-level factors, namely whether or not using a special operations direct action raid to defeat or deter an emerging terrorist threat is in the US’s national interests.

(7) These technologies will likely have a minimal impact on the structural factors in the decision environment. In the case of President Clinton’s rejection of a direct...
action strike against bin Laden, the technologies would have made no difference on the organizational “stovepiping” factor. In the case of Ambassador Huddleston’s rejection of a direct action strike against Belmokhtar, these technologies would have made no difference regarding the personality differences between the Ambassador and General Wald. Accordingly, the capabilities that these technologies provide will likely have little influence on many structural factors. Methods of addressing these structural factors inherent in the decision environment are beyond the purview of this paper.

(8) Apart from these technologies impact on the decision-making process, it is important not to overlook the enhanced tactical-level capabilities of these technologies in of themselves. Their implementation and integration into special operations will undoubtedly save operators’ lives, save civilian lives, and increase the likelihood of mission success. These capabilities will be vital in the US’s continued fight against growing international terrorist threats.

These technologies have the potential to greatly enhance the tactical-level capabilities of special operations direct action raids. In doing so, they will have a major impact on the decision environment by improving the menu of options presented to decision-makers, making the approval of direct action strikes against terrorist threats more likely. Direct action raids are an important tool in the continued fight against terrorist organizations. By enhancing the tactical-level capabilities of these raids, the US will be more likely to avoid missing opportunities to defeat nascent threats and will be more effective at countering, deterring, and defeating these terrorist organizations.
Appendix I: Tactical Theory Behind Special Operations

Conducting a special operations forces direct action raid is extremely dangerous and challenging. Along with being highly-trained and well-equipped, US special operations forces must also have a clear understanding of the tactical theory of special operations in order to know how to effectively perform these operations. While several doctrines have been formed around special operations theory, none is more used and revered than Spec Ops: Case Studies in Special Operations Warfare Theory and Practice, written by Admiral (ret.) William McRaven, the former Commander of both Joint Special Operations Command (JSOC) and US Special Operations Command (SOCOM).

In this book, Adm. McRaven lays out a framework for how special operations are successfully executed. Pivotal to a successful special operation is the ability to achieve and maintain “relative superiority,” a term he defines as “a condition that exists when an attacking force, generally smaller, gains a decisive advantage over a larger or well-defended enemy.” Therefore, in achieving relative superiority, the probability of successful mission completion increases dramatically. Relative superiority must be gained at the “pivotal moment of engagement,” which is unique to each operation, and can occur before or during actual combat. Further, once it is gained, it must be maintained throughout the operation. If it is lost, it is very difficult to regain, and the loss of relative superiority often leads to mission failure.

Adm. McRaven outlines six “principles” of special operations that must be used in combination in order to achieve relative superiority, and subsequent mission success, for a special operation. McRaven states the ideal special operation is “a simple plan, carefully concealed, repeatedly and realistically rehearsed, and executed with surprise, purpose, and speed.” This encapsulates the six principles of special operations: simplicity, repetition, security, surprise, speed, and purpose. McRaven divides these six principles into where they fall within three phases of an operation: planning, preparation, and execution. Below, each of these six principles is briefly summarized.

Planning
Simplicity: McRaven believes this is the most important, though most neglected principle. Within this principle, there are three criteria that must be satisfied in order to ultimately have a successful special operation: having a limited number of mission objectives, having good intelligence, and being innovative. First, according to McRaven, “limiting the objective to only what is essential focuses the training, limits the number of personnel required, reduces the time on target, and decreases the number of ‘moving parts.’” Second, having clear intelligence is essential because it provides an idea of the enemy’s capabilities, and ultimately “simplifies a plan by reducing the unknown factors
and the number of variables that must be considered.”6 Third, innovation in the planning stage helps to simplify an operation by “helping to avoid or eliminate obstacles that would otherwise compromise surprise and/or complicate the rapid execution of the objective.”7 Key to the element of innovation are both new technologies which enable capabilities that were previously unavailable, and innovative, unconventional thinking.

**Preparation**

**Repetition:** Repeated rehearsals of a special operation, both on paper and in full-scale dress rehearsals, are necessary in order to familiarize the personnel involved with all elements of the mission. The goal is to make the procedures special operation a “routine,” so that during the actual operation, all involved are comfortable and familiar with the operation’s plans, objectives, and tactical considerations.8

**Security:** The intent behind this principle is to “prevent the enemy from gaining an advantage through foreknowledge of the impending attack.”9 Specifically, the timing and personnel insertion method must be kept safe and secret, so that the enemy will not be prepared for the attack. Without this principle, achieving relative superiority is nearly impossible.

**Execution**

**Surprise:** McRaven defines this principle as “catching the enemy off guard.”10 In many special operations, the enemy is fortified and fully prepared for the operation. However, relative superiority may be gained by surprising the enemy “through deception, timing, and taking advantage of the enemy’s capabilities.”11 Deception can be used to distract the enemy’s attention or delaying an enemy’s response. The timing of the operation is also important; it should be when the enemy is unsuspecting (often at night under the cover of darkness and when the enemy is tired). Finally, as McRaven notes, “Every defense has a weak point. Gaining surprise means exploiting this weakness.”12

**Speed:** This principle involves rapidly getting to and accomplishing objectives during the operation. The more speed with which an operation’s objectives can be reached, the more likely it is that relative superiority can be gained.13 This principle does not advocate for rushing through an operation, but a smooth, methodical pace of operations greatly increases the likelihood of gaining relative superiority.

**Purpose:** McRaven defines this principle as “understanding and then executing the prime objective of the mission regardless of emerging obstacles or opportunities.”14 There are two elements to draw out of that definition. The first is having a clear mission statement that all involved understand prior to the mission’s execution. The second is for the personnel involved to have the personal commitment to stick to the objective even when things do not proceed as planned during the operation.
Through these six principles, relative superiority and subsequent operation success is more likely. If one or more of these principles is neglected or fails, then it is far less likely (though not impossible) for relative superiority to be gained and the operation to succeed. A close examination of these six principles must be conducted by every special operator and mission planner prior to and during any operation.

Within the principles of simplicity, surprise, and speed, it is easy to see how tactical-level technologies can be extremely influential in the successful execution of an operation by special operations forces. Technologies that provide for innovation in the planning stages, and technologies that provide the increased ability to catch the enemy off guard and rapidly reach the objective can be crucial to the ability for an operation to reach relative superiority.
References

Section I: Introduction

Section II: Special Operations Direct Action Raid Capability
2 Seth Jones, “Counterterrorism and the Role of Special Forces,” The Rand Corporation, Speech Before the Committee on Foreign Affairs Subcommittee on Terrorism, Non-Proliferation, and Trade United States House of Representatives, April 8, 2014, 7-8.
3 Michèle Flournoy (former Undersecretary of Defense for Policy, 2009-2012) in an interview with the authors, November 2015.
4 Ibid.
5 Michael Morell (former Deputy Director of the CIA, 2010-2013) in an interview with the authors, December 2015.
6 John Burnham (Deputy Assistant Secretary of Defense for Threat Reduction and Arms Control) in an interview with the Authors, February 2016.
7 Juliette Kayyem (former Assistant Secretary for Intergovernmental Affairs, DHS, 2009-2010) in an interview with the authors, October 2015.
8 Michael Morell (former Deputy Director of the CIA, 2010-2013) in an interview with the authors, December 2015.
10 Michèle Flournoy (former Undersecretary of Defense for Policy, 2009-2012) in an interview with the authors, November 2015.
Section III: Direct Action Decision Model
2 Ibid, 18.
3 Ibid, 18.
5 Ibid, 24.
6 Ibid, 25.
7 Ibid, 164.
8 Ibid, 152.
9 Ibid, 171.
10 Ibid, 176-77.
13 Ibid.
14 Ibid.

Section IV: New and Emerging Special Operations Technologies

Member from SOCOM in an interview with the authors, December 2015.


Ibid.

Member from SOCOM in an interview with the authors, December 2015.


Ibid.

Ibid.


Ibid, 16.

Ibid, 17.


Section V: Impact of New Technologies on Past Opportunities
The 1998-1999 Hunt for Usama bin Laden

3 Ibid.
8 Ibid.
10 Michael Morell (former Deputy Director of the CIA, 2010-2013) in an interview with the authors, December 2015.
14 Ibid, 117.
15 Ibid, 120.
18 Ibid, 127.
20 Ibid, 137.

24 Ibid, 127.
25 Ibid.
26 Ibid.
31 Michael Morell (former Deputy Director of the CIA, 2010-2013) in an interview with the authors, December 2015.
33 Ibid, 114.
56 Ibid.
57 Ibid.
58 Ibid.
59 Michael Morell (former Deputy Director of the CIA, 2010-2013) in an interview with the authors, December 2015.
62 Michael Morell (former Deputy Director of the CIA, 2010-2013) in an interview with the authors, December 2015.
63 Ibid.

**Attempt to Kill or Capture Mokhtar Belmokhtar in 2003**

2 Ibid.


5 General (ret.) Charles Wald (Deputy Commander, EUCOM, 2002-2006) in an interview with the authors, November 2015.


8 General (ret.) Charles Wald (Deputy Commander, EUCOM, 2002-2006) in an interview with the authors, November 2015.

9 Ibid.


12 General (ret.) Charles Wald (Deputy Commander, EUCOM, 2002-2006) in an interview with the authors, November 2015.


14 Ibid.


terror-effort-in-n-africa/2013/02/04/b98640ba-6cab-11e2-a396-ef12a93b4200_story.html.

19 Ibid.
20 General (ret.) Charles Wald (Deputy Commander, EUCOM, 2002-2006) in an interview with the authors, November 2015.
21 Ibid.
23 General (ret.) Charles Wald (Deputy Commander, EUCOM, 2002-2006) in an interview with the authors, November 2015.
25 General (ret.) Charles Wald (Deputy Commander, EUCOM, 2002-2006) in an interview with the authors, November 2015.
28 General (ret.) Charles Wald (Deputy Commander, EUCOM, 2002-2006) in an interview with the authors, November 2015.
29 Ibid.
31 General (ret.) Charles Wald (Deputy Commander, EUCOM, 2002-2006) in an interview with the authors, November 2015.
33 Jeremy Bash (former Chief of Staff at DOD and CIA, 2009-2013) in an interview with the authors, December 2015.
34 General (ret.) Charles Wald (Deputy Commander, EUCOM, 2002-2006) in an interview with the authors, November 2015.

Section VI: The Decision Environment of Tomorrow
7 Tom Donilon (National Security Advisor to President Obama, 2010-2013) in an interview with the authors, January 2016.
8 Admiral (ret.) William McRaven (former USSOCOM Commander, 2011-2014) in an interview with the authors, February 2016.
9 Michèle Flournoy (former Undersecretary of Defense for Policy, 2009-2012) in an interview with the authors, November 2015.
10 Michael Morell (former Deputy Director of the CIA, 2010-2013) in an interview with the authors, December 2015.
11 Jeremy Bash (former Chief of Staff at DOD and CIA, 2009-2013) in an interview with the authors, December 2015.
12 Tom Donilon (National Security Advisor to President Obama, 2010-2013) in an interview with the authors, January 2016.
13 Admiral (ret.) James Winnefeld (Vice Chairman of the Joint Chiefs of Staff, 2011-2015) in an interview with the authors, February 2016.
14 Admiral (ret.) William McRaven (former USSOCOM Commander, 2011-2014) in an interview with the authors, February 2016.
15 Col Matt Braman (Special Assistant to the Chief of Staff of the Department of Defense) in an interview with the authors, February 2016.
17 Tom Donilon (National Security Advisor to President Obama, 2010-2013) in an interview with the authors, January 2016.
18 Michael Morell (former Deputy Director of the CIA, 2010-2013) in an interview with the authors, December 2015.
Jeremy Bash (former Chief of Staff at DOD and CIA, 2009-2013) in an interview with the authors, December 2015.
20 Admiral (ret.) William McRaven (former USSOCOM Commander, 2011-2014) in an interview with the authors, February 2016.
21 Col Matt Braman (Special Assistant to the Chief of Staff of the Department of Defense) in an interview with the authors, February 2016.
22 Current Senior Administration Official in an interview with the authors, February 2016.
23 Admiral (ret.) James Winnefeld (Vice Chairman of the Joint Chiefs of Staff, 2011-2015) in an interview with the authors, February 2016.
24 General (ret.) James Cartwright (Vice Chairman of the Joint Chiefs of Staff, 2007-2011) in an interview with the authors, November 2015.
25 Admiral (ret.) Michael Mullen (Chairman of the Joint Chiefs of Staff, 2007-2011) in an interview with the authors, November 2015.
26 Tom Donilon (National Security Advisor to President Obama, 2010-2013) in an interview with the authors, January 2016.
27 Ibid.
28 Admiral (ret.) Michael Mullen (Chairman of the Joint Chiefs of Staff, 2007-2011) in an interview with the authors, November 2015.
29 Current Senior Administration Official in an interview with the authors, February 2016.
30 Ibid.
31 Admiral (ret.) James Winnefeld (Vice Chairman of the Joint Chiefs of Staff, 2011-2015) in an interview with the authors, February 2016.
32 Ibid.
33 Jeremy Bash (former Chief of Staff at DOD and CIA, 2009-2013) in an interview with the authors, December 2015.
34 Michael Morell (former Deputy Director of the CIA, 2010-2013) in an interview with the authors, December 2015.
35 Admiral (ret.) Michael Mullen (Chairman of the Joint Chiefs of Staff, 2007-2011) in an interview with the authors, November 2015.
36 Colonel (ret.) Mark Mitchell (Director for Counterterrorism for the National Security Council, 2014-2015) in an interview with the authors, February 2016.
37 General (ret.) James Cartwright (Vice Chairman of the Joint Chiefs of Staff, 2007-2011) in an interview with the authors, November 2015.
38 Ibid.
39 Michael Morell (former Deputy Director of the CIA, 2010-2013) in an interview with the authors, December 2015.
40 Admiral (ret.) Michael Mullen (Chairman of the Joint Chiefs of Staff, 2007-2011) in an interview with the authors, November 2015.
41 General (ret.) James Cartwright (Vice Chairman of the Joint Chiefs of Staff, 2007-2011) in an interview with the authors, November 2015.
42 John Burnham (Deputy Assistant Secretary of Defense for Threat Reduction and Arms Control) in an interview with the Authors, February 2016.
Admiral (ret.) Michael Mullen (Chairman of the Joint Chiefs of Staff, 2007-2011) in an interview with the authors, November 2015.

Jeremy Bash (former Chief of Staff at DOD and CIA, 2009-2013) in an interview with the authors, December 2015.

Section VII: Impact of Technology on Future Decisions

1 Admiral (ret.) William McRaven (former USSOCOM Commander, 2011-2014) in an interview with the authors, February 2016.

3 Admiral (ret.) William McRaven (former USSOCOM Commander, 2011-2014) in an interview with the authors, February 2016.

4 Tom Donilon (National Security Advisor to President Obama, 2010-2013) in an interview with the authors, January 2016.

Section VIII: Conclusion and Summary of Findings

1 Michael Morell (former Deputy Director of the CIA, 2010-2013) in an interview with the authors, December 2015.

Appendix I: Tactical Theory Behind Special Operations


2 Ibid, 4.

3 Ibid, 5-6.


5 Ibid, 12.

6 Ibid, 12.

7 Ibid, 13.

8 Ibid, 15.

9 Ibid, 14.

10 Ibid, 17.

11 Ibid, 17.

12 Ibid, 18.

13 Ibid, 19.

14 Ibid, 21.