

University of Denver

Digital Commons @ DU

Electronic Theses and Dissertations

Graduate Studies

1-1-2017

The Strategic Challenges of Urban Warfare

Christian Aditya Niksch
University of Denver

Follow this and additional works at: <https://digitalcommons.du.edu/etd>



Part of the [International and Area Studies Commons](#), [Military and Veterans Studies Commons](#), [Military, War, and Peace Commons](#), [Political Science Commons](#), and the [Urban Studies Commons](#)

Recommended Citation

Nisch, Christian Aditya, "The Strategic Challenges of Urban Warfare" (2017). *Electronic Theses and Dissertations*. 1285.

<https://digitalcommons.du.edu/etd/1285>

This Thesis is brought to you for free and open access by the Graduate Studies at Digital Commons @ DU. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons @ DU. For more information, please contact jennifer.cox@du.edu, dig-commons@du.edu.

The Strategic Challenges of Urban Warfare

A Thesis

Presented to

The Faculty of the Josef Korbel School of International Studies

University of Denver

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Christian A. Niksch

June 2017

Advisor: Dr. Jonathan Adelman Ph.D.

©Copyright by Christian A. Nicksch 2017

All Rights Reserved

Author: Christian A. Niksch
Title: The Strategic Challenges of Urban Warfare
Advisor: Dr. Jonathan Adelman Ph.D.
Degree Date: June 2017

Abstract

With urbanization on the rise, policymakers cannot ignore urban conflicts. In the aftermath of the Cold War, several scholars were of the opinion that primitive modes of fighting, such as close combat, would cease to be used. However, as urban spaces have increasingly become battlefields in the 21st century, there has been a retrogression to a brutal and bloody mode of fighting. This return of primitivism affects the tactics that the military can use in urban warfare, which makes it a daunting strategic challenge. A combined focus on policy, strategy, and operations is necessary to improve thinking about how exactly to engage in urban warfare. Since this is a low-tech military problem, high-tech advances do not provide viable solutions. Israel's Operation Protective Edge and the joint Iraqi and American fight for eastern Mosul are assessed in this thesis in their policy, strategy, and operational dimensions. Finally, I present conclusions and recommendations suggesting that we concentrate on honing our capabilities and knowledge in order to successfully engage in urban warfare while staying true to liberal democratic values. Such an approach will provide policymakers with more strategic options for dealing with urban warfare.

Acknowledgements

I would like to thank professors Adelman and Goldfischer for their advice and help in completing this thesis. Dr. Griffith, as my degree adviser, stimulated my thoughts initially to research the issues surrounding urban warfare. I also want to thank my parents for all their support over the course of my Master's degree.

I wrote this thesis in an attempt to bridge the gap between practitioners and policymakers. Urban warfare is so very complex that we need to return to simple definitions because planning and executing operations is difficult enough. Specialization is necessary for the military to bring its skills to bear in urban combat. Policymakers need not be experts at this, but they need to start acknowledging the need for these skills.

List of Acronyms

ALB	AirLand Battle
AQI	Al Qaeda in Iraq
APV	Armored Personnel Vehicle
C2	Command and Control
COA	Course of Action
CQB	Close Quarters Battle
EBO	Effects Based Operations
HUMINT	Human Intelligence
IDF	Israeli Defense Force
ISF	Iraqi Security Forces
ISIL	Islamic State of Iraq and the Levant
ISIS	Islamic State of Iraq and Syria
ISR	Intelligence, Surveillance, and Reconnaissance
MANPADS	Man-Portable Air Defense System
MARSOC	United States Marine Corps Forces, Special Operations Command
MNF-I	Multinational Forces – Iraq
MOU	Military Operations on Urbanized Terrain
NCW	Network Centric Warfare
OOTW	Operations Other than War
O – RMA	Other Revolution in Military Affairs
RMA	Revolution in Military Affairs

ROE	Rules of Engagement
SOPs	Standard Operating Procedures
TTPs	Tactics, Techniques, and Procedures
UAV	Unmanned Aerial Vehicle
USSOCOM	United States Special Operations Command

Table of Contents

Abstract	ii
Acknowledgements.....	iii
List of Acronyms	iv
Table of Contents.....	vi
Strategic Studies and Urban Warfare.....	1
Chapter 1: Policy, Strategy, and Operations	6
Historical Texts: Clausewitz and Sun Tzu.....	6
Problems of Modern Strategic Theory	8
Terms got Muddled, so What?.....	9
The Three Levels of Policy, Strategy, and Operations.....	11
Figure 1. – The Relationship between Policy, Strategy, Operations, and Tactics.....	13
Delineating Strategy from Policy.....	14
Deconstructing False Labels: Strategy and Operations.....	16
Operational Art Misconstrued as Strategy.....	19
The Element of Strategy	21
Strategy and Operations Are Key to Policy Success.....	22
Policy Goals and the Conduct of Operations.....	24
Resources, Strategy, and Operational Planning	27
Strategy, the Conduct of Operations, and achieving Victory	28
Policy, Strategy, Operations Planning, and the Tactical Toolkit	30
Chapter 1 Conclusion: The Role of Strategy	33
Guerrillas in Cities in the 1960s and 1970s.....	35
Section Conclusion on Guerrilla Strategy and Warfare of the 1960s and 70s ..	41
Chapter 2: The Problems of Urban Warfare.....	43
Strategy and Urban Warfare	43
The Challenges of Urban Warfare.....	44
Counterinsurgency and Urban Warfare	47
The Tactical Imperative	49
The Urban Operational Environment and Battlefield.....	50
What Tactics should be used in Urban Warfare?	53
How can we deal with the Challenges of Urban Warfare?.....	54
Urban Operations.....	58
Difficulties of Urban Warfare: Combat Tactics and Policymakers.....	60
Civil – Military Affairs, Tactics, and Urban Warfare	61
Strategy, Rules of Engagement, and Tactics.....	63
The Urban Battlefield: From Shantytowns to Large and Megacities	64
The Urban Combat Spectrum: Why fighting in Cities is as important as winning hearts and minds	65

Policy Goals in Urban Warfare	66
Chapter 2 Conclusion	68
Chapter 3: Case Study One – Operation Protective Edge.....	70
Israel’s Security Policy and Strategy towards Gaza.....	70
Background – Israeli Infantry in Urban Combat.....	71
The Operational Environment: Built-up Areas.....	73
Fighting in Tunnel Systems	73
Israeli Political Fallout.....	74
Urban Warfare and the IDF	75
Hamas’ Center of Gravity.....	76
War Crimes Allegations	76
Victory?	80
Chapter 3 Conclusion	83
Chapter 4: Case Study Two – Retaking Eastern Mosul.....	84
Background.....	84
U.S. Policy Goals	85
The Position of the Iraqi Government	85
Strategy	87
ISIL’s Center of Gravity.....	88
ROE in Eastern Mosul.....	89
The Fight for Eastern Mosul.....	91
Chapter 4 Conclusion	94
Chapter 5: Conclusion and Recommendations.....	95
a. Conclusion.....	95
b. Recommendations – Topics to focus on in the Future	98
c. Recommendations for Future Actions	99
Bibliography	102

Strategic Studies and Urban Warfare

“You may not be interested in war but war is interested in you.” – Leon Trotsky

“...an urbanizing world means combat in cities, whether we like it or not.” – Ralph Peters¹

Since the end of the Cold War, there have been three major trends that have and will continue to shape the future of security policymaking. These trends are the increasing volatility between states in the international system (the rise of multi-polarity), the rise of violent non – state actors, and the urbanization of most of the world’s population. This thesis deals with the latter two topics. The rise of urban warfare has led to a resurgence of primitivism in military affairs. Since the large maneuver battles that were waged in World War Two, to the open battlefields of the Arab-Israeli War, and the First Gulf War (Operation Desert Storm), the rise of non-state actors and hybrid conflicts has thrown military affairs back from high-tech dependent warfare to ground warfare that is highly dependent on infantry tactics. Urban warfare is a low-tech problem that detracts from the technological developments that have been made over the past six decades in the areas of nuclear missile capabilities, improved communications technology, and advances

¹ Ralph Peters, “Our Soldiers, Their Cities,” *PARAMETERS, US Army War College Quarterly*, no. Spring 1996 (1996): 43–50.

in tank technology. High-tech advances unfortunately do not guarantee victory in urban warfare. Hence, they decrease the number of military options that policymakers can authorize.

Furthermore, there seems to be an interesting parallel between the character of current conflicts and autocratic regimes. As primitive models of governance reemerge, we observe a return of primitive and brutal military modes of conflict. Rather than making technology ever more important in warfare, urban conflict results in militaries having to place more importance on ground combat troops. This makes Close Quarters Battle (CQB) important to the infantry again because even full political commitment cannot prevent the physically and mentally exhausting fighting that breaks out in urban warfare.

As urbanization is becoming more prevalent around the world, the willingness of non – state groups – whether criminal gangs or terrorist organizations – to operate in these expanding urban areas has become evident. To understand how to engage with the way these non-state groups function is essential in bringing them to fall, hence one must study how to plan and conduct urban warfare. This is an incredibly difficult task because there is a disconnect in the way that strategy has been formulated, focusing hitherto on open battlefields. Over the past millennium and even the past centuries, strategists have advised against fighting in cities.

S.L.A Marshall already remarked in the 1960s that while the battles with the highest casualty and attrition rates in the Second World War, the Korean War, and the Vietnam War were in urban areas, the topic has not been subjected to formal study, with

no classic strategist covering the topic of urban warfare.² The advice that Sun Tzu, Clausewitz, and others such as Jomini give is to avoid the extremely brutal and bloody fighting that breaks out in urban warfare.³ Yet, as David Kilcullen states, urbanization no longer lets us avoid urban areas as battlefields anymore. We must “drag ourselves – body and mind – out of the mountains.”⁴ This thesis argues that the nexus between policy, strategy, and operations must be clearly defined in order to enable success in urban warfare operations.

I examine the classic strategic texts of Sun Tzu and Clausewitz in detail to highlight some key concepts that apply on any battlefield. These elements are discussed in relation to strategy, operations, and urban warfare. As combat in cities could not be avoided in the past, it seems unlikely that this will also be the case in the future. Diplomacy, conflict resolution, and mediation efforts should by no means be discredited, but it is clear that not every hostile actor can be reasoned with.⁵ Understanding how to approach the political and military headache that urban warfare poses is important for these reasons. Policy goals, strategy, operations, and the use of tactics are re-examined here to show how these elements are interwoven. The works of Hew Strachan and

² S. L. A. Marshall, *Notes on Urban Warfare* (DTIC Document, 1973), 3, accessed February 16, 2017, <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=AD0758841>.

³ Ibid.

⁴ David Kilcullen, *Out of the Mountains: The Coming Age of the Urban Guerrilla* (Oxford University Press, 2013), 262.

⁵ The current situation with the Islamic State of Iraq and the Levant (ISIL) is a stark and unnerving example of this. ISIL is the Obama administration’s official designation. Others refer to them as the Islamic State of Iraq and Syria (ISIS). In this thesis, the latter abbreviation can be found in the list of abbreviations, certain footnotes, and the bibliography.

Edward Luttwak are also discussed as part of this assessment. These modern-day academics make it clearer as to why it is so difficult to talk about policy, strategy, operations, and tactics.

The texts of Lin Biao, Mao Zedong, Giáp, Che Guevara, and Carlos Marighella are reviewed to show how guerrilla fighters view the use of tactics and warfare in their quest to achieve political goals. These texts inform us about the necessity of understanding the role of warfare when pursuing political goals. The extent to which these authors' views are applicable to urban warfare is assessed.

I then turn to more contemporary writers such as Kilcullen and Petraeus to examine the difficulties that policymakers and military troops face in urban warfare. This is exacerbated by the fact that waging war is already a difficult political undertaking for democracies.⁶ This only becomes more complex when dealing with urban warfare in the context of densely populated urban environments. These policy and strategy issues, and the importance of tactical innovation are discussed in the case studies in this thesis. The Israeli Defense Force's (IDF) Operation Protective Edge and the first phase in the fight to retake East Mosul are analyzed to understand how the issues regarding the conduct of urban operation and the use of tactics in the context of political goals are dealt with.

Much of the literature concerning urban warfare has been written and compiled by military officers. These sources are used here to help create an understanding of the issues that the military has identified as major issues in urban warfare. The issues range

⁶ For the challenges democracies face when engaging in urban warfare see, Henrik Bering, "Two Battles at Once: Democracies and Urban Warfare," *Policy Review*, no. 157 (2009): 47–60.

from training and skills enhancement, over cultural literacy, to the technical aspects of urban combat, and the need to generate actionable intelligence as quickly as possible.

Chapter 1: Policy, Strategy, and Operations

Historical Texts: Clausewitz and Sun Tzu

The classical strategists Clausewitz and Sun Tzu warned of fighting in urban areas. The rate of attrition is very high which leads to militaries paying a very high price through high casualty rates and loss of material when conducting urban warfare.⁷ Rather than focusing on these segments of their texts, we should remember their teachings about the centers of gravity, friction, the use of battle, and the importance of terrain. Cities should be viewed as centers of gravity where social, political, and military interactions are heavily intertwined. Unlike the open battlefields in Europe that were well suited for maneuver battles during the Second World War, the fighting force cannot be easily separated from the civilians who live in the city in which the fight is carried out. Thus, friction and the fog of war are more prominent in urban warfare than in the large-scale battles of World War Two. Imperfect information complicates this even further.⁸

These factors affect how strategy is formulated. Since the end of the Second World War, however, many factors that affect the formulation of strategy have been

⁷ Marshall, *Notes on Urban Warfare*, 2.

⁸ For a detailed discussion of an intelligence analysis methodology for urban operational environments see, Wayne Michael Hall and Gary Citrenbaum, *Intelligence Analysis: How to Think in Complex Environments* (Santa Barbara, California: Praeger, 2009).

misconstrued. These issues are discussed and explained in the following three sections to show how we can garner an understanding of why this misinterpretation occurred, and how to avoid it in the future.

Problems of Modern Strategic Theory

Modern strategic theory has become detached from the original (Clausewitzian) meaning of strategy. Many false labels have been assigned to strategy, and have put the idea in many people's heads that strategy is a plan. To correct this, I deconstruct the meaning and relationship of policy to strategy and operations. Delineating these terms allows one to study the relationship between policy, strategy, and operations, which in turn has implications for policymakers and military professionals. I argue that strategy is merely the mission statement that a government or organization issues before going on to plan how to achieve these set goals. There are two seminal points to this chapter. First, strategy is not policy. Strategy distinguishes itself from the latter by not being subject to the political process; strategy is guided by policy.⁹ Second, strategy is the framework from which one draws up operations and contingency plans. Strategic goals influence which actions to take.¹⁰

Chapter 1 focuses on the importance of strategy for military operations but acknowledges that a strategy can include a wide range of actions. A strategy, for example, can have a range of options ranging from economic sanctions over diplomatic negotiations, to the use of military power in the form of Special Forces raids, or a pre-emptive nuclear first strike. Strategy is only a framework that guides how one should employ resources in order to achieve policy goals. The complexity surrounding strategy

⁹ For a rational-choice based approach to strategy see Richard K. Betts, "Is Strategy an Illusion?," *International Security* 25, no. 2 (October 1, 2000): 5–50.

¹⁰ Joint Chiefs of Staff, *Joint Publication 5-0: Joint Operation Planning* (Washington, D.C.: Joint Chiefs of Staff, 2011), 1, accessed March 25, 2017, <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA562213>.

arises from the difficulty of planning and successfully conducting operations using tactics to achieve policy goals. Focusing on how operations and tactics are connected to strategy is the best way to study the use of strategy for attaining policy goals.

Terms got Muddled, so What?

Misconstruing policy, strategy, and operations has implications for understanding how practitioners formulate the three. Conflating these terms only destroys their usefulness. It does not make the distinctions clear and mistakenly equates political goal-setting (policy) with the ways of achieving these (operations). Hence, strategy has increasingly become a mixture of these two and no longer functions as a framework, but as an overly ambitious planning tool. Hew Strachan explains that it is currently fashionable, “to use the word strategy as a synonym for policy.”¹¹ However, this is not strategy but a combination of using the word “strategy” as a synonym for policy and, at the same time, wanting this policy to function as an operations planning blueprint.

Understanding how the development of the nexus of policy, strategy, and operations has distorted the meaning of strategy makes it clear as to why strategic thinking has become so very difficult. In relation to urban warfare, these issues affect the ways that policymakers can influence how a strategy is put into action by conducting operations. To deal with this in a more structured manner, the following two pages are used to explain these interrelations between policy, strategy, and operations. First, definitions for policy, strategy, operations, and tactics are provided. Then the relationship

¹¹ Sir Hew Strachan, *The Direction of War: Contemporary Strategy in Historical Perspective* (Cambridge, United Kingdom ; New York: Cambridge University Press, 2014), 151.

between them is illustrated through a flow chart. These two pages should clarify how these factors are related.

The Three Levels of Policy, Strategy, and Operations

Policy: Policymakers put their ideas into action by crafting and implementing policy. A policy is commonly described as a set of goals a government, political party, or a business wish to achieve. In the case of businesses, policy goals are stated in a company's mission statement. There can only be one strategy for every policy. A strategy tends to require many operations to be conducted for these goals to be achieved.

Strategy: I define strategy as a framework that allows leaders to achieve policy goals through the means of operational conduct. Strategy brings policy goals to fruition. For example, a non-interventionist foreign policy emphasizes the use of diplomatic and economic power over the use of military force. As a framework, it informs the ways in which operations are planned and executed.

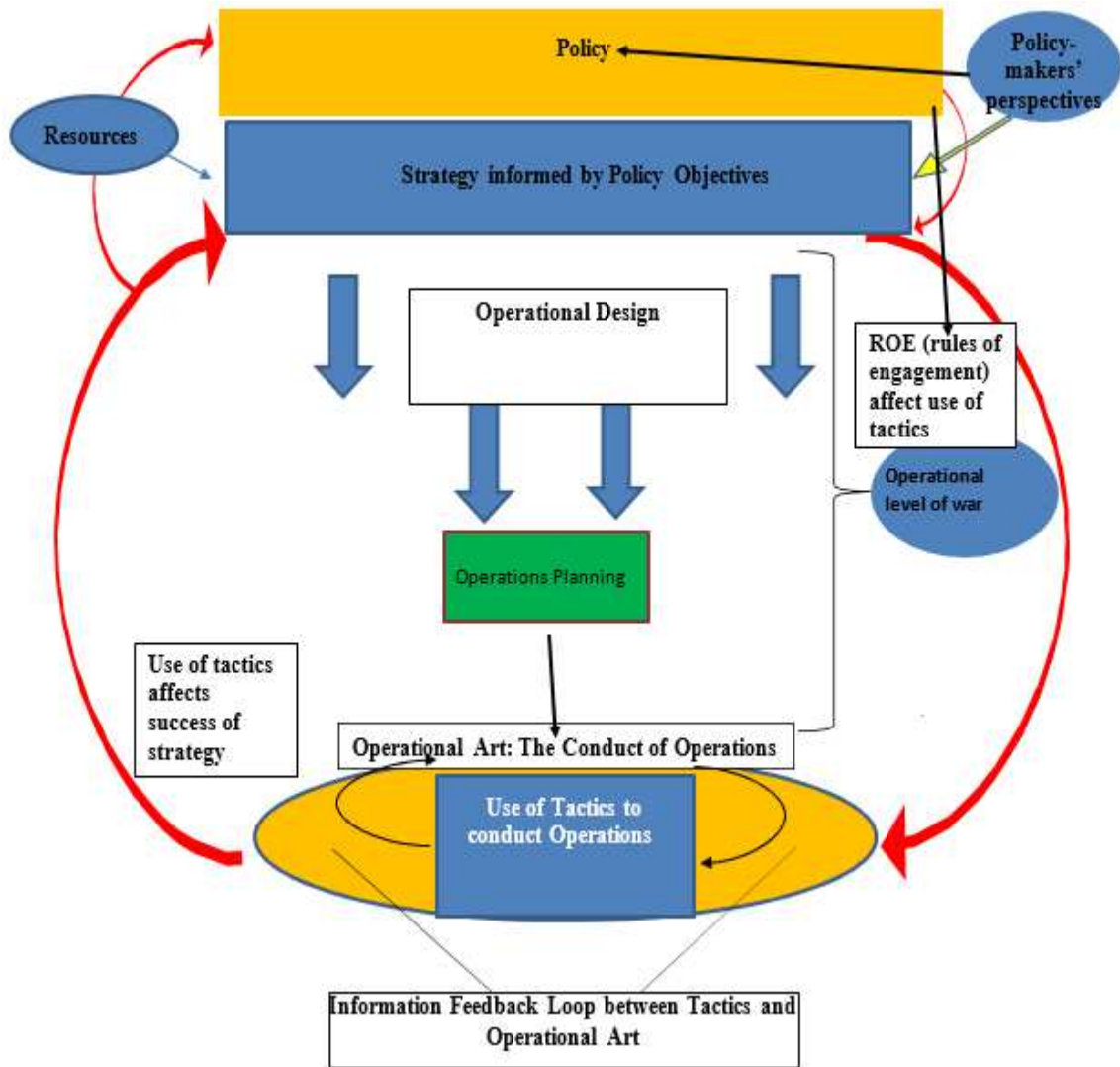
The Operational Level and Operations: Operational design, operational and contingency planning, and operational art all fall under the operational level of war. Operations require the use of tactics to conduct operations. The degree of success is dependent upon a commander's aptitude for operational art. Successfully conducting operations directly helps in achieving strategic and policy goals.

Tactics: Borrowing from Clausewitz, I define tactics as "the arrangement and conduct of combat."¹² Tactics are the tools that are used to conduct operations and reach strategic objectives. They are employed to conduct operations and achieve strategic goals. A strategy cannot be brought to fruition without tactics. Using tactics without

¹² Sun-Tzu and Karl von Clausewitz, *The Book of War: Sun-Tzu's "The Art of War" & Karl Von Clausewitz's "On War,"* First Edition. (New York: Modern Library, 2000), 329.

having a strategic goal will most likely not lead to victory because one cannot reach an end state that has not been defined.

Figure 1. – The Relationship between Policy, Strategy, Operations, and Tactics



Note: The relation between the ROE (rules of engagement), the role of policymakers, and tactics is discussed in more detail in chapter 2.

Delineating Strategy from Policy

Since the Cold War, people tend to see strategy and policy as one instead of two separate entities.¹³ Along these lines, Strachan argues that the meaning of strategy has been lost. He argues that the German word *Politik*, which can mean either politics or policy, has been falsely translated.¹⁴ The process through which policy goals are selected is inherently political. Thus, this is the main cause for the confusion.

The meanings of these concepts are so blurred that many scholars and practitioners no longer consider the differences between the terms policy, strategy, and operations.¹⁵ While Strachan argues that strategy is how military leaders seek to achieve policy goals, I argue that strategy is the goal or goals that a policy wishes to achieve, and that these goals are attainable through military operations or other non-kinetic actions such as economic sanctions or de-radicalization programs.¹⁶ Strategy, per Clausewitz, outlines how policy goals are going to be achieved. Thus, we must bear in mind that the actions mentioned above are not strategies but tactics. Since the world has misinterpreted what strategy stands for, the challenge is to stop thinking about tactics as strategies.¹⁷

¹³ Ibid., 211–212.

¹⁴ Hew Strachan, “The Lost Meaning of Strategy,” *Survival* 47, no. 3 (October 1, 2005): 33–36.

¹⁵ Strachan, *The Direction of War*, 215.

¹⁶ Strachan, “The Lost Meaning of Strategy,” 52.

¹⁷ “Why a Strategy Is Not a Plan,” *The Economist*, last modified October 2, 2013, accessed May 15, 2016, <http://www.economist.com/news/books-and-arts/21588834-strategies-too-often-fail-because-more-expected-them-they-can-deliver-why>.

As the meaning of strategy is “the use of the engagement for the purpose of the war,”¹⁸ and since policy directly affects the formulation of strategy, strategy must be understood as a guiding script for planning operations and not as an inflexible planning document. As Strachan points out, the Clausewitzian definition of strategy does not define policy. Clausewitz understood that strategy was not synonymous with policy or politics.¹⁹ At most, strategy should be considered a framework for the actions that will be undertaken to achieve the goals defined by policy. For a strategy to be successful, operation plans must be drawn up and implemented.

As was discussed above, the academic study of war at the operational level has been very scarce. Even though Luttwak stated back in 1981 that, “It is not surprising that the major works of military literature tend to focus on the operational level, as evidenced by the writings of

Clausewitz,”²⁰ it seems that not much has changed since he published his article “On the Operational Level of War.” A simple Google search reveals that the majority of research related to the operational level of war, and operational design that is necessary to plan operations, is conducted and published by military practitioners.²¹ In recent years, Hew Strachan, a military historian at Oxford University, has described the importance of

¹⁸ Strachan, “The Lost Meaning of Strategy,” 34.

¹⁹ Ibid.

²⁰ Edward N. Luttwak, “The Operational Level of War,” *International Security* 5, no. 3 (1980): 61.

²¹ Googling “Operational Level of War” generates over a million hits but the first are mostly documents published by the military. For an example of a scholar-practitioner’s publication on operational design see Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action* (Maxwell Air Force Base, AL: Air University Press, 2012).

strategy and operations, and their relation to policy.²² With policy defining the goals that a strategy is to achieve, operational plans “need to look to the near term, and work with specific situations,” to ensure that policy objectives are achieved.²³

Strategy exists at the intersection of policy and operations. The formulation of strategy then aims at connecting policy and operations. Freedman believes that the components of strategy should be flexible.²⁴ For example, if we know that our policy objective is the implementation of democracy and that our strategy is the pacification of a country, then we can plan and execute operations accordingly. As a framework, strategy allows battlefield commanders to design operations plans. To achieve the goals outlined by policymakers, operational planners can use strategic (and policy) guidance to identify the resources necessary and determine the best course of action (COA) to meet these objectives.²⁵

Deconstructing False Labels: Strategy and Operations

Nowadays, it seems that there is a strategy for everything and everyone. The United States has a national security strategy, a cybersecurity strategy, a space strategy, a strategy for countering violent extremism, an international development strategy, and

²² Strachan, *The Direction of War*, 265.

²³ Hew Strachan, “Strategy and Contingency,” *International Affairs* 87, no. 6 (November 1, 2011): 1281.

²⁴ “Why a Strategy Is Not a Plan.”

²⁵ Reilly, *Operational Design*, 21.

businesses have so-called marketing and sales strategies.²⁶ In fact, the U.S. Department of Defense and the civilian federal government agencies have different cybersecurity strategies.²⁷ Standalone cyber and space strategies are useless concepts because they are not focused on framing a response to these problems. Rather, they are planning documents to reach those goals. As could be seen in the previous section, what we call strategy today is a misnomer because it includes too many operational and tactical details. In many cases, strategies do not link means to ends. Proposed actions however, are planning efforts and not strategies.

Strachan retraces the historical development of strategy in Europe from the 18th century to the present day. He concludes that the most important factor for a successful strategy is the development of an operational concept that enables commanders to fulfill policy goals.²⁸ This, in turn, requires the acknowledgement that the coordination of military operational capabilities needs to be credited for creating what is still called “strategic success.” For example, the Allies were only able to bring their overwhelming

²⁶ For the DoD’s cyber strategy see U.S. Department of Defense, “THE DEPARTMENT OF DEFENSE CYBER STRATEGY” (U.S. Department of Defense, 2015), accessed April 25, 2017, https://www.defense.gov/Portals/1/features/2015/0415_cyber-strategy/Final_2015_DoD_CYBER_STRATEGY_for_web.pdf; For the National Security Space Strategy see U.S. Department of Defense and Office of the Director of National Intelligence, “United States National Security Space Strategy (Unclassified Summary of January 2011)” (U.S. Department of Defense, 2011), accessed May 20, 2017, http://heinonline.org/hol-cgi-bin/get_pdf.cgi?handle=hein.journals/zlw60§ion=27; For the misinterpretation of marketing and sales plans as strategies see “Why a Strategy Is Not a Plan.”

²⁷ For the DoD see U.S. Department of Defense, “DOD Cyber Strategy”; Shaun Donovan and Tony Scott, “Cybersecurity Strategy and Implementation Plan (CSIP) for the Federal Civilian Government” (Executive Office of the President: Office of Management and Budget, 2001), accessed October 30, 2015, <https://obamawhitehouse.archives.gov/sites/default/files/omb/memoranda/2016/m-16-04.pdf>.

²⁸ Hew Strachan, *European Armies and the Conduct of War*, Revised ed. edition. (London; New York: Routledge, 1988), 207.

power to bear in the Second World War because they coordinated the use of their operational capabilities. As Strachan explains:

Neither the advocates of the bomber nor those of the tank had been proved right in the Second World War. The independent use of any one arm in the long run was inadequate. But in collaboration with each other and with infantry and artillery, both bomber and tank achieved much. Each arm, each service and each nation developed a specific approach. Those traits of independence did not become divisive and ultimately self-defeating because of the effectiveness of allied communications. From the major tripartite conferences, through the staff talks, down to wireless conversations on the battlefield itself, communications ensured coherence. Thus, the allies could attack on a broad front, allowing the full deployment of their economic superiority.²⁹

This demonstrates that one can create strategic success by employing operational capabilities and allocating resources more efficiently than one's adversary. Success, therefore, depends heavily on operational planning. Standalone strategies are useless academic concepts because they are not focused on how to frame a response to these problems, but rather focus on how to plan a crisis response.³⁰ Many of the different labels stem from the mislabeling of operations as strategies, such as theater strategy and specialized space, air, maritime, and cyber strategy. Nevertheless, these are all domains in which conflict is possible. To tackle these problems, different operational concepts and plans must be developed.

In relation to operational and contingency planning, Strachan makes the point that emphasis should be placed on improving operational responsiveness to uncertainty and

²⁹ Ibid., 183.

³⁰ Luttwak refers to these kinds of single force strategies as "non-strategies," see Edward N. Luttwak, *Strategy: The Logic of War and Peace*, Revised edition. (Cambridge, Mass: Belknap Press, 1987), 156.

volatility in the international system.³¹ Both he and Luttwak argue that there are many components that affect operational planning and the operational level of war.³² As urbanization is on the rise, potential urban conflicts need to be taken into account when formulating a strategy. Having delineated policy from strategy, we now turn to the differences between strategy and operational art.

Operational Art Misconstrued as Strategy

The potential for arising future urban conflicts requires new operational concepts that enable joint operations. Operational art has, however, been ignored in favor of strategic studies. Since strategy has been mislabeled, it no longer matches its Clausewitzian meaning. Therefore, the bigger problem is a conceptual and philosophical one: we should stop labeling everything that is difficult to think about, and plan for, as a strategic challenge. These challenges are mostly related to military operational art. The conduct of operations is not the same as the formulation of a strategy or the operational planning process. Qualitative factors such as leadership, resiliency, discipline, and

³¹ Strachan, "Strategy and Contingency," 1281–1283; Furthermore, "A reassessment of the concept of balance of power is in order. In theory, the balance of power should be quite calculable; in practice, it has proved extremely difficult to harmonize a country's calculations with those of other states and achieve a common recognition of limits. The conjectural element of foreign policy - the need to gear actions to an assessment that cannot be proved when it is made - is never made - is never more true than in a period of upheaval." See Henry Kissinger, *World Order*, 371 (UK: Allen Lane, 2014); See also Zbigniew Brzezinski, *Strategic Vision: America and the Crisis of Global Power*, 110-120, 2nd edition. (New York, NY: Basic Books, 2012).

³² On contingency planning see Strachan, "Strategy and Contingency", 1287-1292; for strategy and the conduct of operations in war see Luttwak, "The Operational Level of War", 61.

motivation are decisive factors for the conduct of operations. They tend to be the driving forces that lead to victory in combat operations.³³

While commanders must retain the freedom to act independently, they must do so within the guidelines of a strategy. Allowing military commanders to make decisions independently is important for the success of a strategy. This command and control (C2) concept is called Mission Command and has its roots in the Prussian Army's formulation of broadly defined order known as *Auftragstaktik*.³⁴

If policymakers exert too much control over the tactics being employed, the policy goals will not be reached. Strategy formulation and operational planning are necessary to achieve these goals. Whether one agrees with Bush's political ideas or not, he did understand the importance of military planning.³⁵ Counterinsurgency (COIN) in Iraq was only successful because military leaders with professional experience and the appropriate education were allowed to implement the operational concepts and plans that

³³ For leadership and resiliency see Thomas Bauer and Ralph Rotte, "Prospect Theory Goes to War: Loss-Aversion and the Duration of Military Combat" (1997), 17, accessed April 17, 2017, <https://epub.ub.uni-muenchen.de/1489/>; for discipline and motivation see Trevor N. Dupuy, *Understanding War: History and Theory of Combat* (New York: Paragon House, 1987), 87.

³⁴ For the definition of mission command as used by the U.S. Army see U.S. Department of the Army, *ADP 3-0 Unified Land Operations* (Washington, D.C.: Department of the Army, 2011), 6-7, accessed February 17, 2017, https://www.army.mil/e2/rv5_downloads/info/references/ADP_3-0_ULO_Oct_2011_APD.pdf; for the historical development of *Auftragstaktik* in the Prussian and German Army see Martin Sonnenberger, "Initiative Within the Philosophy of *Auftragstaktik*: Determining Factors of the Understanding of Initiative in the German Army, 1806-1955" (US Army Command and General Staff College, 2015), accessed February 25, 2017, http://usacac.army.mil/sites/default/files/documents/cace/CSI/CSIPubs/Sonnenberger_Book.pdf.

³⁵ Nico Hines, "Senior UK Defense Advisor: Obama Is Clueless About 'What He Wants To Do In The World,'" *The Daily Beast*, last modified January 15, 2014, accessed March 19, 2017, <http://www.thedailybeast.com/articles/2014/01/15/senior-uk-defense-advisor-obama-is-clueless-about-what-he-wants-to-do-in-the-world.html>.

they thought to be most effective.³⁶ The ability of commanders to make operational decisions (Mission Command) directly affects the success or failure of a strategy. However, strategy can only be delivered on if it has been well defined as a framework that guides operational leaders to reach policy objectives. This shows that much of what has been labelled as strategy is in fact operational art.

The Element of Strategy

Having established that strategy is a framework and that operations are conducted to implement it, we now look at what makes a strategy successful. Instead of looking at how to improve operations planning and conduct, Colin S. Gray explains that there are seventeen important factors that make up a successful strategy.³⁷ However, Gray makes a glaring mistake when studying strategy because he tries to systematize the issues relating to executing a strategy. Gray does not study operations in depth or clarify how important these are for strategy. In fact, he barely mentions operational capabilities. When Gray analyzes Clausewitz's legacy for strategic studies, he writes that Clausewitz "laid bare the nature of war and strategy."³⁸ He goes on to state that Ludendorff, Hitler, Churchill and Stalin were the only figures of the twentieth century to hold both a certain amount of

³⁶ Fred Kaplan, *The Insurgents: David Petraeus and the Plot to Change the American Way of War*, Reprint edition. (New York: Simon & Schuster, 2014), 303–305; John A. Nagl and Peter J. Schoomaker, *Learning to Eat Soup with a Knife: Counterinsurgency Lessons from Malaya and Vietnam*, 1st edition. (Chicago: The University of Chicago Press, 2005).

³⁷ Colin S. Gray, *Modern Strategy*, 1 edition. (New York: Oxford University Press, 1999), 24.

³⁸ *ibid*, 75.

political and military power that enabled them to enact their strategies the way they did.³⁹ However, while Gray goes on to point out that Marshal Zhukov, General Eisenhower, and General MacArthur were “all but dwarfed by their obvious subordination to political authority,”⁴⁰ it must be noted that these military practitioners were the ones planning and conducting the necessary operations that brought about the success or failure of the strategy laid out by policymakers and military leaders.⁴¹

Gray concludes that strategy is eternal and that the difficulty lies in its performance rather than its permanent nature or even its changing character.⁴² Here, I disagree with Gray’s interpretation of Clausewitzian strategic thought since, “strategy is the use of the engagement to attain the object of the war.”⁴³ As such, strategy never changes in character; it remains a blueprint that informs planners about how they can connect means to ends. Hence, executing successful operations is the result of operations planning and operational conduct which must be based on a well-formulated strategy.

Strategy and Operations Are Key to Policy Success

As was briefly mentioned before, Strachan focuses on Clausewitz’s distinction between strategy and policy to show that they are not the same. This differentiation

³⁹ *ibid*, 77-78.

⁴⁰ *ibid*, 78.

⁴¹ Military leadership in this case refers to the U.S. Joint Chiefs of Staff and organizations with similar tasks around the world.

⁴² Gray, *Modern Strategy*, 354.

⁴³ *Ibid*.

allows for greater focus to be placed on the difficult task of planning. As Strachan makes abundantly clear, planning operations, drawing up contingency plans, and implementing them successfully is what determines the successful outcome of a strategy.⁴⁴ In this view, strategy remains important because it enables practitioners to operationalize policy. By setting the bounds, it instructs operational planners on the availability of the resources they can commit to achieving the goals that have been set by policymakers. Thus, policy goals can only be brought to fruition if the relationship between strategy and planning is taken into consideration.

When a strategy is drawn up it must allow for actions to be undertaken that can be adapted to changing situations. This level of flexibility is only attainable on the operational level if adjustments can be made by operational commanders and platoon leaders involved in tactical engagements.⁴⁵ Only if operational-level commanders can adapt their battle plans to situational circumstances can they bring a strategy to fruition and achieve the goals set out by policymakers. We now turn to the importance of policy objectives and conducting operations to fulfill them. Operations are the complex amalgamation of tactical processes; however, the uncertainty created through the conduct of battles can cause unanticipated consequences. Uncertainty and friction can cause unwanted outcomes, even resulting in the failure of operations.

⁴⁴ Strachan, "Strategy and Contingency," 1296.

⁴⁵ Luttwak, "The Operational Level of War," 61; Strachan, *The Direction of War*, 212.

Policy Goals and the Conduct of Operations

As was alluded to before, policy objectives manifest in operations. How operations are conducted determines the success or failure of strategy, and by extension, policy. Strategy merely guides the operations planning process and determines which end state should be achieved.⁴⁶ As such, strategy is the framework for how operations are conducted; it is “the use of the engagement for the purpose of the war.”⁴⁷

In *Book III: Of Strategy in General*, Clausewitz covers the main elements of strategy that are necessary to achieve policy goals. Clausewitz explains that strategy only functions as a framework for reaching the goals that have been set out by policymakers. In *Book VIII: Plan of a War*, Clausewitz explains in great detail that planning is important for the conduct of war. Planning is a required activity for leading a successful campaign to achieve policy goals. A battlefield commander can increase his chances of mission success by developing different COAs (course of actions) and placing them into context with the operational environment’s conditions before he conducts an operation.

According to Clausewitz, strategy is constructed to guide decision-makers in achieving goals set out in a policy. Strategic goals are how a policy is administered; operations are how to go about achieving those goals, and tactics are the tools that can be used to conduct these operations. Thus, strategy is a conceptual framework that is meant

⁴⁶ “Joint Publication (JP) 1-02 defines *end state* as ‘the set of required conditions that defines achievement of the commander’s objectives.’¹ The gravity of employing the military instrument of power, however, mandates a clear understanding of strategic purpose bounded by a national strategic end state and a military end state. The president and the secretary of defense provide strategic guidance establishing a set of national strategic objectives that should culminate in the accomplishment of the national strategic end state.” See Reilly, *Operational Design*, 32–33.

⁴⁷ Sun-Tzu and Clausewitz, *The Book of War*, 390.

to inform operational planners and decision-makers about how they should go about conducting a campaign or specific operation. It is a framework that guides the planning and conduct of operations.⁴⁸

Only if operations are planned for, and contingency plans are drawn up, can a strategy be successful. Therefore, choices made about how to reach one's strategic goal must have many smaller goals that must be reached on the operational level.⁴⁹ What is now called the operational level of war was referred to by Clausewitz and Sun Tzu as engagements. To conduct operations successfully requires assessing the situation, putting it into context with one's strategy, and planning engagements.

Whether constructing assessments, waging battle, or creating strategic advantage, Sun Tzu wrote that the tasks of planning and implementing operations are components with which one can achieve the goals set out in a policy.⁵⁰ The creation of strategic advantage in particular is an area that depends entirely on the conduct of operations and not on strategic thought. Sun Tzu explains that:

Generally in battle use the 'straightforward' to engage the enemy and the 'surprise' to win the victory. [...] 'Surprise' and 'straightforward' operations give rise to each other endlessly just as a ring is without a beginning or an end. And who can exhaust their possibilities?⁵¹

It can be seen that the range of operations yields endless possibilities for a commander. The conduct of operations determines, to a large extent, if a strategy will be

⁴⁸ Ibid., 87, 97, and 390.

⁴⁹ Luttwak, "The Operational Level of War," 62–63.

⁵⁰ Sun-Tzu and Clausewitz, *The Book of War*, 73, 75, and 85.

⁵¹ Ibid., 85.

successful or not. Thus, the level below strategy, i.e. the operational level, is where the success or failure of a strategy is determined.⁵²

Nonetheless, the outcome of military operations cannot be fully predicted because of the uncertainty that is created through the friction of fighting a combat engagement. This is what the Prussian Field Marshall Helmuth von Moltke wished to express when he wrote that, “No plan survives contact with the enemy.”⁵³ The fog of war creates uncertainty. Clausewitz outlined this in much detail and explained that uncertainty and friction can only be dealt with by continuously carrying out the actions of operational planning and practicing maneuvers.⁵⁴ It is in this area of warfare that innovation has played a decisive role in advancing the ways in which maneuvers are used.³⁸ Even nowadays, the presence of modern communications technologies on the battlefield has not been able to alleviate the battlefield commander from the uncertainty of war.⁵⁵

At a minimum, the uncertainty created by engagements in operations plays a part in deciding the outcome of a war. Understanding when to disengage an enemy, when to delay actions, and how to conduct combat under special conditions makes all the difference because these decisions directly influence the degree of friction generated by

⁵² Luttwak, “The Operational Level of War,” 61.

⁵³ “Why a Strategy Is Not a Plan.”

⁵⁴ Sun-Tzu and Clausewitz, *The Book of War*, 481–482; Antulio J. Echevarria II, *After Clausewitz: German Military Thinkers Before the Great War* (Lawrence: University Press of Kansas, 2001), 33.

⁵⁵ Even the presence of high-tech Intelligence, Surveillance, and Reconnaissance (ISR) equipment has not eliminated the “the fog of war” on the battlefield. See Hall and Citrenbaum, *Intelligence Analysis*, 12.

combat.⁵⁶ The only way to bypass the majority of problems is to plan operations and acknowledge that luck and uncertainty are important factors in warfare.

The uncertainty and friction created by warfare heavily influence the outcome of tactical engagements which, in turn, has an impact on operations. Friction is created through the conduct of battle.⁵⁷ The only way to deal with the issues that friction can cause is through ad hoc judgement decisions. The most prominent way of trying to counter uncertainty is through contingency planning. The military historical record suggests that these factors should be subjected to further study.⁵⁸ This mitigates some risk and ensures that commanders are not caught totally off guard when unpredictable situations arise in battle.

Resources, Strategy, and Operational Planning

To make the conduct of operations possible, a military must be able to utilize its economy of force. David Stone observes that, “Von Seeckt was aware of the importance of economic factors in a war and took them into account while establishing the Wehrmacht.”⁵⁹ For this reason, he tried to create the awareness for a rapidly expandable

⁵⁶ Bruce Condell and David T. Zabecki, eds., *On the German Art of War: Truppenführung: German Army Manual for Unit Command in World War II* (Mechanicsburg, PA: Stackpole Books, 2008), 137–145.

⁵⁷ Luttwak, *Strategy*, 10–11.

⁵⁸ Strachan, *The Direction of War*, 208–209.

⁵⁹ David J. Stone and Richard Holmes, *Fighting for the Fatherland: The Story of the German Soldier from 1648 to the Present Day*, 2nd edition. (Washington, D.C: Potomac Books Inc., 2006), 310–311.

industrial base to support combat efforts and the forward-deployed supply lines.⁶⁰ However, the Wehrmacht's warfighting manual did not emphasize the importance of forward-deployed supply lines for combat forces.⁶¹ The failure to take operational capabilities into account when planning the initial campaigns in Afghanistan and Iraq has reaffirmed their importance. The military industrial base is no longer geared towards operational capability development. It has become a large research and development effort in which companies from time to time succeed in manufacturing useful military equipment.⁴⁵ Equipment, although not discussed in detail in this thesis, is a factor that directly influences a military's ability to effectively conduct operations. The implications are so far-reaching that operational planning can be hindered through the acquisition process.⁶² The overall effectiveness of a strategy is heavily influenced by the resource constraints placed on operational planners.

Strategy, the Conduct of Operations, and achieving Victory

Achieving strategic goals requires that operations are conducted successfully. This depends on implementing tactics that do not negatively affect strategic outcomes. As

Luttwak observes:

In the imminence of possible death, the easiest action that entails increased exposures will remain undone unless all sorts of complex intangibles (morale, cohesion, and leadership among them) can overcome the instinct of survival. And once the centrality of these intangible mysteries is duly recognized in what happens and fails to happen, no simplicity

⁶⁰ Ibid.

⁶¹ Condell and Zabecki, *On the German Art of War*, 9.

⁶² Luttwak, "The Operational Level of War," 63–64.

remains even in the most elementary of tactical actions conducted against a living, reacting enemy.⁶³

This becomes an incredibly difficult task to achieve when one factors in the importance of facing not a static but reactive enemy. Uncertainty is the most important factor; it can only be overcome through decisive action. Both Sun Tzu and Clausewitz discuss uncertainty in tactical engagements. They conclude that planning and vigilance – what we have come to call situational awareness – are essential components of successful combat.⁵⁰ To conduct combat that contributes successfully to strategic goals is of paramount importance, but this is an area that has not received much attention in past decades.

In *Fighting for the Fatherland*, David Stone explains the importance of administrative reforms by looking at the military reforms undertaken by General Hans von Seeckt in the German Army between the two World Wars.⁶⁴ In a more contemporary context, the U.S. Army started a similar process which led to the publication of a report on the future of the Army.⁶⁵ In both cases, the reforms were meant to bring about the changes required to maintain operational capabilities.

The strategic framework helps with the formulation of plans. Measuring whether a strategy is performing successfully is necessary, but evidence suggests that we are not

⁶³ Luttwak, *Strategy*, 8.

⁶⁴ Stone and Holmes, *Fighting for the Fatherland*, 300.

⁶⁵ NATIONAL COMMISSION ON THE FUTURE OF THE ARMY, *NATIONAL COMMISSION ON THE FUTURE OF THE ARMY. REPORT TO THE PRESIDENT AND THE CONGRESS OF THE UNITED STATES* (Washington, D.C, January 28, 2016), accessed April 26, 2017, http://www.ncfa.ncr.gov/sites/default/files/NCFA_Full%20Final%20Report_0.pdf.

very good at this.⁶⁶ Creating indicators that measure the effectiveness of tactics for a strategy are difficult to conceive, albeit necessary.

The construct, concept, and indicators of strategy are the most important categories to understand when formulating a coherent strategy. Planning and conducting operations is of paramount importance for reaching the goals set out in policy. Successful operations indicate that a strategy is effective. A strategy, however, is only measurable if the measures of effectiveness can show if operational planning and conduct led to strategic goals being achieved. The indicators used for this need to be relatable to measures of effectiveness. For this reason, a strategy must be executable through operations, and should not be a statement of political aims.

Even though it is well documented in classic strategic texts that a strategy needs indicators to measure its success, this has been covered very poorly in modern strategic literature.⁶⁷ Gray argues that a strategy contains seventeen distinct variables, but these were meant to guide the formulation of a successful strategy. They do not suffice for planning how to achieve strategic goals.⁶⁸

Policy, Strategy, Operations Planning, and the Tactical Toolkit

As was stated above, strategy provides guidance for accomplishing policy goals, rather than a specific plan of action. For this reason, operations need to be conducted to

⁶⁶ Strachan, *The Direction of War*, 280–282.

⁶⁷ Sun-Tzu and Clausewitz, *The Book of War*, 74 and 416-418.

⁶⁸ Gray, *Modern Strategy*, 24.

achieve the goals that have been outlined. The success of a strategy is dependent upon the tactics that are employed when operations are conducted. Policy goals need to be defined before a strategic blueprint can be drawn up to guide the operations that need to be conducted. Strachan explains that over the course of the Cold War, tactical and operational considerations were given less attention than policy and strategic posture.⁶⁹ For this reason, the study of strategy, operations, and tactical actions are necessary to understand how to achieve policy goals. The use of hard power is but one tactical choice that can be made. Implementing economic sanctions or deploying troops are examples of this. Soft power tactics, such as conducting diplomatic negotiations or practicing civil engagement, can be used when appropriate.

The tactical level has not received much attention by researchers.⁷⁰ The lessons learned from tactical engagements need to be placed in the appropriate operations context because decisions made under the stressful conditions of combat are very subjective and difficult to study.

Edward N. Luttwak suggests with his theory of the logic of strategy that the seemingly most inefficient option can be the strategically most effective choice.⁷¹ A perfect example of this is the inverse relationship of counterterrorism tactics and strategy. To decrease terrorism and an insurgency, a dual approach that combines the soft power

⁶⁹ Ibid., 211–212.

⁷⁰ Strachan, *The Direction of War*, 213–214.

⁷¹ Luttwak, *Strategy*, 8–9.

tactics of counterinsurgency (COIN) and hard power counterterrorism tactics and aggressive operations like raids is necessary.⁷²

Planning the operations that the strategy allows for and those that will be necessary to attain policy goals is a seemingly simple task that many people fail to perform. The tactics that can be employed need to be taken into consideration to see what options are available. Planners must ensure that the suggested methods can actually be employed. Hence, we should not forget that luck and uncertainty are factors that heavily influence the outcome of campaigns and operations.

⁷² U.S. Department of the Army, *FM 3-24: Insurgencies and Countering Insurgencies* (U.S. Department of the Army, 2014), 9–4, accessed January 25, 2017, <https://fas.org/irp/doddir/army/fm3-24.pdf>.

Chapter 1 Conclusion: The Role of Strategy

As could be seen throughout this chapter, we must study policy, strategy, operations, and tactics together and not in isolation. Clausewitz and Sun Tzu's texts are an excellent basis for studying the interrelation of policy goals, strategy formulation, operations planning, tactics and the effects of uncertainty, friction, and the fog of war on them.

We should state again that policy is inherently political since its original meaning in German is politics.⁷³ Strategy should be seen only as a framework for attaining policy goals. Formulating a strategy is not difficult; implementing and executing it successfully is. The complexity that operational planning and the tactical level entail need to be acknowledged. We must understand their implications. As complex as planning and conducting operations may be, they are necessary processes for achieving strategic objectives. In fact, drawing up a strategy and defining realistically attainable strategic objectives will become an ever most difficult task. With the security spectrum spanning from proliferation, over conventional warfare and insurgencies, to the outbreak of pandemics and humanitarian crises, this will not become any easier.

With the shift from rural to urban battlefields, urban warfare must be looked at as a strategic challenge. A warfighter's choice of tactics can affect the success of a strategy. The concept of the Strategic Corporal is an example of how practitioners have already started thinking about the importance of tactical decisions made by the common combat

⁷³ Strachan, "The Lost Meaning of Strategy," 33-36.

soldier and Marine.⁷⁴ This development is of immense importance for achieving policy goals and strategic objectives. Urbanization requires us to reexamine the classical strategic texts of Clausewitz and Sun Tzu and put them into the context of urban operating environments as urban areas are bound to become more important for policymakers. In future, strategy formulation will require us to study the implications, advantages, and repercussions tactics can have on achieving strategic objectives and policy goals.

Having laid out these definitions, we now turn to the issue of how non-state actors and guerrillas view the importance of cities and urban warfare.

⁷⁴ The concept of the Strategic Corporal was coined by Marine Corps General Charles C. Krulak. It is meant to highlight that actions taken by a single junior member of the military can affect the overall success of a mission. Especially in relation to the increased presence of the media on the modern battlefield, this can have repercussions for the strategy that has been laid out. For a detailed discussion of the concept, see, Charles Krulak, "The Strategic Corporal: Leadership in the Three Block War," *Air University*, last modified 1999, accessed March 6, 2017, http://www.au.af.mil/au/awc/awcgate/usmc/strategic_corporal.htm.

Guerrillas in Cities in the 1960s and 1970s

In their fight against the so-called Establishment, guerrillas also took their struggle into cities. Due to their strategy of avoiding direct battles in open spaces, guerrillas mostly lived in the countryside and then conducted attacks in urban areas through skirmishes and hit-and-run attacks.

Carlos Marighella was the only guerrilla who focused on fighting the Establishment in cities. As the most famous urban guerrilla, he applied the methods of guerrilla warfare in the cities of Brazil. Marighella outlines strategy, operational procedures, and also comments on the tactics that should be employed by urban guerrilla groups.

Concerning politics and political ends, Marighella references Che Guevara as the main source of political inspiration and makes it clear that the main strategic objective of a guerrilla movement is to bring about political change.⁷⁵ In light of the concentration of powerful people in cities, these should be where the revolution should be carried out. Marighella's reason for conducting guerrilla operations in cities is, therefore, clear. This political goal is his reason for bringing the fight against the local Brazilian government and their American allies to the streets and houses of Brazilian cities. Marighella's

⁷⁵ Robert Moss, *Urban Guerrilla Warfare: With an Appendix: Mini-manual of the Urban Guerrilla* (International Institute for Strategic Studies, 1971).

importance lies in the fact that he is the only guerrilla of the 1960s and 70s to focus on the city as a strategically important area.

Che Guevara does acknowledge that cities are important, but to him the countryside is more important.⁷⁶ Guerrilla strategy, according to Che Guevara, requires a new and different approach. For him, the main issues are the underlying social and economic inequalities. The guerrilla movement must explain the importance of the revolution to the local population.⁷⁷ These reasons are meant to motivate people to join a guerrilla movement. Guevara also has a completely different definition of strategy than Clausewitz. Guevara states that guerrillas should understand strategy as, “the analysis of the objectives to be achieved in the light of the total military situation and the overall ways of reaching these objectives.”⁷⁸ While Guevara uses this different definition of strategy and believes that the countryside is more important than cities for a popular struggle, he gives important advice on the use of tactics. For him, mobility is the most important tactic for guerrillas.⁷⁹ It can be used to successfully fight against government forces by executing a range of movements such as encirclement and attacking troops by night. As guerrillas are likely to be outnumbered by government forces, they must capitalize on the element of surprise whenever possible.⁸⁰ Mobility and tactics are also useful for fighting in an urban combat environment.

⁷⁶ Che Guevara, *Guerrilla Warfare* (Bison Books Printing, 1998), 8.

⁷⁷ *Ibid*, 16.

⁷⁸ *Ibid*, 14.

⁷⁹ *Ibid*, 18.

⁸⁰ *Ibid*, 19-20.

Mao Zedong places more emphasis on the importance of ideology and politics than Che Guevara. Guerrillas mostly exploit the tactical advantages they are given. It also goes to show that Mao was aware of the importance of having a simple strategy, an issue that I address in chapter 1. Overly complicated strategic objectives only hamper one's ability to reach the political goal. He argues that a commander should aim at exhausting the enemy in the long run.⁸¹ Referring to the Sino – Japanese War, Mao states that, “the War of Resistance will be a protracted war.”⁸² Further addressing the study of war and politics, Mao states that most people either have a mechanistic or idealistic approach, neither of which is helpful for devising a successful strategy.⁸³ To beat a strong enemy, Mao highlights the importance of flexibility and initiative for waging guerrilla warfare.⁸⁴ While Mao mentions cities, he does not discuss their role in the revolutionary struggle in detail. He regards the countryside as strategically more important than urban areas.

Lin Biao, another Chinese guerrilla, makes the argument that guerrilla movements need to bring strategy and tactics together to reach the political goal of a successful revolution. For Lin, the importance of the study of warfare lies in adapting it to reach political goals. For a popular resistance movement to be successful, the enemy's weak points must be exploited. Lin states: “In the course of protracted armed struggle, we

⁸¹ Jay Mallin, ed., *Strategy for Conquest: Communist Documents On Guerrilla Warfare* (Coral Gables, Fla: Univ of Miami Pr, 1970), 51.

⁸² *Ibid.*, 53.

⁸³ *Ibid.*, 57.

⁸⁴ *Ibid.*, 93-95 and 99.

have created a whole range of strategy and tactics of people's war by which we have been able to utilize our strong points to attack the enemy at his weak points."⁸⁵

Lin explains that, "Guerrilla warfare is the only way to mobilize and apply the whole strength of the people against the enemy, the only way to expand our forces in the course of the war, deplete and weaken the enemy... and finally defeat the enemy."⁸⁶ He further explains that mobilization of the population is how the Chinese Communist Revolution gained enough support to switch to, "large-scale mobile warfare, including the storming of big cities."⁸⁷ Referring to the ways in which a more powerful enemy should be dealt with, Lin acknowledges that direct confrontation is unavoidable. While he highlights the importance of sabotage attacks in guerrilla warfare, he makes it clear that direct combat with enemy forces is necessary: "It is true that in guerrilla warfare much should be done to disrupt and harass the enemy, but it is still necessary actively to advocate and fight battles of annihilation whenever conditions are favorable."⁸⁸ This shows that even though the overall political goals cannot be ignored, these battles of annihilation are the crucial element of forcing one's will upon the enemy. Lin refers to the countryside as the main population center that guerrillas should seek to control. As urbanization progresses, his comments are a clear reminder that the countryside and the hinterland should not be forgotten.⁸⁹ He explains that cities are the terrain into which a

⁸⁵ Ibid., 142.

⁸⁶ Ibid., 142.

⁸⁷ Ibid., 143.

⁸⁸ Ibid.

⁸⁹ Ibid., 152.

strong adversary should be drawn into and pinned down. This allows the guerrilla movement to stretch the enemy's forces throughout cities and the countryside.⁹⁰ While he does not go into a detailed discussion of how to wage urban warfare, Lin does discuss the importance of urban centers for a popular armed struggle and the element of surprise of fighting government forces in urban battles.

Lin's writing also provides some hints for defeating a guerrilla movement. Draining the enemy of his most important resource, the local population, is of paramount importance. Over time, this lessens the support that guerrilla groups have in local communities.⁹¹ Even when alleviating local grievances, however, guerrilla leaders and their loyal followers need to be engaged through combat. Doing this without alienating the local populace is a difficult, yet necessary task because it is not possible to negotiate with everyone.⁹² It seems that in order to get the local population on your side, one might require Machiavellian negotiation tactics to further one's position through the use of diplomacy, as well as the use of force.

Vietnamese general Giáp states knowledge of different tactics, and understanding how to use them is what makes guerrillas such effective warfighters.⁹³ He stresses the importance of tactics for a successful guerrilla movement because these allow them to engage in battle with government forces and their allies. For Giáp, the use of combat

⁹⁰ Ibid., 144.

⁹¹ Kilcullen, *Out of the Mountains*, 118-119; For grievances and insurgency see *FM 3-24*, 4-3 "MOTIVE."

⁹² Peter R. Mansoor and David Petraeus, *Surge: My Journey with General David Petraeus and the Remaking of the Iraq War*, Reprint edition. (New Haven Connecticut: Yale University Press, 2014), xiv.

⁹³ Mallin, *Strategy for Conquest*, 189.

tactics is essential in achieving the political aim of popular resistance.⁹⁴ This seems to differentiate guerrillas from governments. In a guerrilla movement, political goals, strategy, and tactics are well aligned. Western governmental structures however, seem to make this a much more disjointed endeavor. While strategy is formulated by the President and his advisers, the use of force is heavily influenced by the different military commands and branches. This is the main reason the Goldwater – Nichols Act was introduced in the United States; the concept of joint warfighting was developed as part of this.⁹⁵ Along the same lines, combined warfighting activities are executed by guerrilla groups. Guerrillas are willing and able to adapt their strategic objectives, operational procedures, and their use of tactics to the terrain they choose to fight in. Giáp sees fighting in cities as part of revolutionary warfare. For him all types of terrain - jungles, cities, and plains - are part of a combination that characterizes the armed struggle against imperialist oppression.⁹⁶ Hence, guerrillas adapt to the conditions of the terrain they are fighting in because it allows them to reach their strategic objectives.

⁹⁴Giáp refers to tactics as “fighting methods,” see *Ibid.*, 191.

⁹⁵ Barry Goldwater and William F. Nichols, “Goldwater–Nichols Department of Defense Reorganization Act,” 1986, accessed February 22, 2017, http://history.defense.gov/Portals/70/Documents/dod_reforms/Goldwater-NicholsDoDReordAct1986.pdf.

⁹⁶ Mallin, *Strategy for Conquest*, 193.

Section Conclusion on Guerrilla Strategy and Warfare of the 1960s and 70s

As could be seen, the authors discussed here all agree that a wide range of tactics must be employed by guerrillas to attain political goals. In relation to combat, guerrillas resort to the tactics that help them maximize the effects of surprise on their enemy. This is the best way for a guerrilla force to be victorious in the beginning, when the movement is at its weakest. Furthermore, actions undertaken by guerrillas need to bring about change in the nation they are fighting in. If they cannot bring about social change, the guerrilla movement then fails.

These different authors state that combat tactics must be used to attain strategic objectives and political goals. They make it clear that a strategy cannot be achieved without the use of tactics. Advancing revolutionary political goals requires the use of different types of warfare. The guerrillas' willingness to adapt to different environments, such as cities and the countryside, requires mental flexibility. They fight where they can gain influence.

Marighella is the only guerrilla fighter and author who focuses on the city as the most important area for bringing about socio-political revolution. Half a century ago, Marighella was already aware of cities being power centers. They are centers of gravity that yield powerful and critical vulnerabilities for both guerrillas and state security forces. The vulnerabilities are presented by socio-economic factors and the physical properties of a city. Furthermore, cities pose risks for infantry soldiers. The urban environment is very difficult to navigate. Troops require a very large amount of intelligence to act effectively. This increased intelligence requirement makes it very difficult to create situational

awareness and provide actionable intelligence. Yet, these challenges need to be mastered by the militaries of democratic countries. Only if security and military forces can manage these vulnerabilities and potentially turn them into opportunities, can they be successful in urban combat operations.

Hence, I have reviewed the writings of leading guerrilla thinkers on how important cities are for their armed struggles. In the previous section, I laid out a foundation for analyzing the importance of urban warfare in policy, strategy, and operational conduct. We now turn to a discussion on the challenges of urban warfare. The complexity of the modern urban battlefield and the impact that policymakers can have on the conduct of operations will become apparent.

Chapter 2: The Problems of Urban Warfare

Strategy and Urban Warfare

To understand the relevance of urban warfare for strategy, we look at how urban warfare is utilized in different operational concepts in order to achieve the objectives outlined in a strategy. As was mentioned in the introduction, cities have been avoided by militaries. Clausewitz and Sun Tzu did not think that urban warfare should not be conducted.⁹⁷ However, as noted earlier, the ever-increasing rate of urbanization will inevitably lead politicians to deploy military forces to intervene in cities. The case studies in chapters 3 and 4 demonstrate this. Developing a strategy that takes urban areas into account is no easy task because there are many factors that affect the outcome of battles in densely populated and built-up areas.⁹⁸ Since the historical record shows that urban warfare is extremely brutal, vicious and bloody, this fact needs to be taken into consideration by policymakers when they decide whether to commit troops to fighting in urban area.⁹⁹ The decisions made by policymakers and by troops on the ground that are caught in the heat of battle lead to a level of complexity that increases the difficulty of

⁹⁷ Marshall, *Notes on Urban Warfare*, 2.

⁹⁸ Peters, "Our Soldiers, Their Cities."

⁹⁹ For an excellent discussion of the qualitative factors affecting urban warfare see, Sean J. A. Edwards, *Mars Unmasked: The Changing Face of Urban Operations* (Santa Monica, CA: RAND Corporation, 2000).

successfully conducting urban warfare. As was discussed in chapter 1, the conduct of operations is an art of its own. How a military force engages in combat is dependent on the battlefield or operating environment it is fighting in. At the strategic level, policymakers and military leaders lay out the framework used by commanders to plan and execute operations.

The Challenges of Urban Warfare

The complexity of the urban battlefield stems from several key factors. Intelligence collection is very difficult, casualties are likely to be very high, the rules of engagement (ROE) are likely to be restrictive, technological superiority in joint fires are likely to be negated by the operating environment, and urban operations are ground combat intensive. This makes urban warfare a more challenging undertaking than maneuver warfare.

Additionally, the complexity of the urban operating environment makes it ever more important to have actionable intelligence. A military force can only succeed in urban combat operations if its warfighters have heightened situational awareness. This allows infantry to keep civilian casualties at a minimum and maintain legitimacy throughout the fighting.

To illustrate this point, a brief discussion of the battles of Stalingrad and Moscow will help highlight the challenges urban warfare poses. The cities of Stalingrad and Moscow were strongpoints that could have broken the Soviet military. They were of historical, symbolic, and military importance, and thus were considered centers of gravity

of the Soviet Union. Stalingrad however, was an avoidable battle because it was not of military significance. Moscow was the real center of gravity, but Hitler underestimated the Soviet commitment to defending this city. His misallocation of resources made it impossible for the Wehrmacht to succeed against the Red Army in the battle for Moscow. As the offensive actor in these battles, the Wehrmacht had a large interest in winning decisively and quickly. Operation Barbarossa was planned accordingly. Hitler, however, was not interested in this.¹⁰⁰ His strategic misjudgment of the importance of speed in urban warfare clearly demonstrates that Hitler did not understand the complexities of the urban battlefield. Hitler's unwillingness to resupply the 6th Army in Stalingrad made this fight for the city unnecessarily brutal for Wehrmacht soldiers. Marshall Zhukov's order that every Soviet soldier should fight the Germans until his death contributed heavily to this.¹⁰¹ The high level of commitment to tactical engagements shows how Stalin was helped in achieving his goal of recapturing cities and taking the offensive to the Germans. In both cases, the cities provided the opportunity for the Soviet army to turn the war against the Third Reich. Stalin made a smart strategic decision by letting Marshall Zhukov and the Soviet General Staff take the lead in repelling the Wehrmacht. While Hitler blundered through his Russia campaign and did not listen to his military advisers, Stalin let military professionals lead the way in the fight against the Nazis. Maj. Gen. Vasili Ivanovich Chuikov took over the defense of Stalingrad on September 13, 1942 and

¹⁰⁰ John Antal, *City Fights: Selected Histories of Urban Combat from World War II to Vietnam*, First Edition. (New York: Presidio Press, 2003), 45.

¹⁰¹ *Ibid.*, 47.

maintained defensive positions against the Nazis.¹⁰² As the battle intensified, he observed that Soviet soldiers became successful city defenders by fighting “to the last breath.”¹⁰³ The Red Army was extremely successful in draining the Wehrmacht of its dominant combat power by fighting in small units, with no more than four people per fighting group.

The strategic challenge of urban warfare is that it is very difficult to achieve decisive victory without accepting heavy losses. The complexity of the urban battlefield only exacerbates this. To maintain legitimacy, militaries of democratic countries must take the local population into account and alleviate grievances to the largest extent possible.

¹⁰² Ibid., 35.

¹⁰³ Ibid., 50.

Counterinsurgency and Urban Warfare

As the historical record indicates, urban warfare is likely to occur as part of a counterinsurgency (COIN) campaign.¹⁰⁴ Counterinsurgency doctrine, spearheaded by General Petraeus, also requires the direct use of force to counter insurgencies.¹⁰⁵ The use of targeted Special Operations is necessary to deal with the hardliners among the insurgents. While this is not directly in line with alleviating local grievances, it is a necessary measure because it is not possible to deescalate every situation peacefully or deradicalize every member of an insurgency.

The U.S. military's most recent revision of its counterinsurgency manual devotes a section to fighting insurgents. As a field manual, it does not outline the tactical options in detail. These can be found in the field manuals that are written for specific battlefields. FM 90-1 is the relevant field manual for urban combat at the squad and platoon level (these formations are normally made up of 4 to 44 soldiers or Marines).¹⁰⁶ To win hearts and minds, the deployed combat troops need to understand how to engage with the local population.¹⁰⁷ This is important because of tactical combat engagements, and there are likely to be many of them when soldiers fight in cities. This is the unfortunate reality of urban conflict; we have not, nor will we likely be able to avoid urban warfare. Yet, when

¹⁰⁴ Kilcullen, *Out of the Mountains*, 19.

¹⁰⁵ *FM 3-24*.

¹⁰⁶ Rod Powers, "Here's How the U.S. Army Is Organized, from Squads to Corps," *The Balance*, accessed April 20, 2017, <https://www.thebalance.com/u-s-army-military-organization-from-squad-to-corps-4053660>.

¹⁰⁷ *FM 3-24*, 3-1.

operations are conducted in densely populated areas, we must try to keep the negative effects of urban combat on the local population at a minimum. For this reason, and also since the use of tactics is heavily influenced by policymakers, the tactical options that are at the disposal of battlefield commanders need to be understood.

The Tactical Imperative

Close Quarters Battle (CQB) tactics play a crucial role in achieving policy goals in urban warfare. In an increasingly urbanized world, policymakers should understand that fighting in urban areas differs from fighting in wide and open terrain such as the Fulda Gap. This was an area where there was the possibility of mechanized maneuver warfare through coordinated land and air attacks.¹⁰⁸

The technical aspects of combat deal with the use of weapons in an urban environment. The important issues here are barrel length, the type of caliber to be used (7.62 x 51mm NATO is desirable), and the preferred auxiliary handgun size, a 9mm. This makes it easier to shoot because recoil management is more easily achievable with this caliber and warfighters can carry more ammunition.¹⁰⁹

These technical aspects feed into the use of tactics. Which tactics can be employed, however, is a matter of how the strategy is framed and how the ROE (rules of engagement) are formulated. These are the guidelines on which the operational concepts and mission plans are based. An understanding of the tactics that are available to planners has been overlooked in the past decades. Strachan states that most security policy thinking during the Cold War was dedicated to policy and strategy formulation, and

¹⁰⁸ For a detailed history of the importance of the Fulda Gap (unfortunately only available in German) see, Dieter Krüger, ed., *Schlachtfeld Fulda Gap: Strategien und Operationspläne der Bündnisse im Kalten Krieg*, 2nd ed., Schriftenreihe Point Alpha 2 (Fulda: Parzeller, 2015).

¹⁰⁹ “Foreign Military Studies Office Publications - Grozny 2000: Urban Combat Lessons Learned,” accessed April 20, 2017, <http://fmso.leavenworth.army.mil/documents/grozny2000/grozny2000.htm>.

doctrinal revision.¹¹⁰ These large-issue areas, while important, are not what determines the outcome of battles. The military's ability to successfully engage in combat needs to be taken into account when looking at formulating a strategy. The extreme option of leveling a city as the Russians did in the Battle of Grozny in 2000 is not possible for Western democracies. Such an extreme use of force is not in line with the ethics of democratic values. The tactics, techniques, and procedures (TTPs) that are at the military's disposal need to be made known to policymakers. Only then can these tactical skills and technical capabilities be taken into account. The issues of friction, planning, and operational conduct are also considered here to help the reader understand that these variables remain the same on every battlefield.

The Urban Operational Environment and Battlefield

The complexity of the urban operating environment is the factor that influences most conditions of an urban battlefield. A brief examination of the city and wider urban areas as a battlefield makes it clear that this operating environment is different from the open battlefields that have been prominent over the past five centuries.

Cities have always taken a special place in warfare. Since the very first recorded stories of mankind, such as the *Epic of Gilgamesh*, cities have had a central role in battle. Gilgamesh built the city wall around Uruk in order to defend it.¹¹¹ Over time, cities and

¹¹⁰ Strachan, *The Direction of War*, 211–212.

¹¹¹ Assyrian International News Agency, "The Epic Of Gilgamesh," accessed April 20, 2017, <http://www.aina.org/books/eog/eog.htm>.

general urban areas became the sites of numerous and well-known battles such as the battles for Aachen¹¹² and Berlin¹¹³ during World War Two, the battle to recapture Seoul in Korea in 1951, the battle of Hue City, 1968 in Viet Nam,¹¹⁴ and in more recent history the battles to reclaim Ramadi¹¹⁵ and Fallujah in Iraq.¹¹⁶ Military operations on urban terrain have, as a short account of all battles listed will show, a high casualty rate and a high level of attrition.¹¹⁷ The different approaches to Military Operations on Urban Terrain (MOUT) were formulated as a response to these changing factors.¹¹⁸ In the aftermath of the battles for Fallujah in 2004 and Ramadi in 2007, a new operating concept, Joint Urban Operations, was formulated by the US military.¹¹⁹ The

¹¹² P.F. Gorman, *Aachen 1944: Implications for the Future* (Alexandria, VA: Institute for Defense Analyses, n.d.), accessed April 26, 2017, http://usacac.army.mil/cac2/csi/docs/Gorman/06_Retired/03_Retired_2000_11/01_00_Aachen1944_Implications_28Jan.pdf.

¹¹³ Remme Tilman, "World Wars: The Battle for Berlin in World War Two," *BBC - History*, last modified March 10, 2011, accessed April 26, 2017, http://www.bbc.co.uk/history/worldwars/wwtwo/berlin_01.shtml.

¹¹⁴ Maj. Mark Sumner, "USMC MOUT DOCTRINE," n.d., 392, accessed April 26, 2017, https://www.rand.org/content/dam/rand/pubs/conf_proceedings/CF148/CF148.appm.pdf.

¹¹⁵ Michael J. Totten, "Anbar Awakens Part I: The Battle of Ramadi," *Michael J. Totten's Middle East Journal*, last modified September 10, 2007, accessed March 6, 2017, <http://www.michaeltotten.com/archives/001514.html>.

¹¹⁶ Jonathan F. Keiler, "Who Won the Battle of Fallujah?," *Military.com*, last modified January 2005, accessed March 20, 2017, http://www.military.com/NewContent/0,13190,NI_0105_Fallujah-P1,00.html.

¹¹⁷ Paul K. Van Riper, "A Concept for Future Military Operations on Urbanized Terrain," *Marine Corps Gazette* 81 (1997): 9, accessed February 19, 2017, <https://marinecorpconceptsandprograms.com/sites/default/files/concepts/pdf-uploads/Concept%20For%20Future%20MOUT.pdf>.

¹¹⁸ US Marine Corps, "Military Operations on Urbanized Terrain (MOUT)," *Marine Corps Warfighting Publication MCWP* (1998): 3–35.

¹¹⁹ For Ramadi see Keiler, "Who Won the Battle of Fallujah?"; for Ramadi see Totten, "Anbar Awakens Part I: The Battle of Ramadi"; for Urban Operations see Joint Chiefs of Staff, *JP 3-06 Joint*

transformation from MOUT to Urban Operations shows how urbanization has exacerbated the complexity of the urban battlefield. The factors that affect all types of warfare can guide policymakers and military planners when dealing with the strategic and operational challenges of planning urban warfare campaigns.

The aim of this thesis is to help policymakers, strategic thinkers, and military planners to conceptualize thought about urban warfare as part of their strategy and their available operational capacities. This shows the need to acknowledge the importance of infantry and the use of Close Quarters Battle (CQB) tactics for success in urban operating environments. Analyzing these factors and looking at the case studies will allow for recommendations as to how to improve strategic thinking about urban warfare, the operating concepts that can be used as starting points for future operational design, and the underlying tactics that can be utilized to defeat enemies on the urban battlefield.

Urban warfare poses a multitude of challenges. It requires us to consider the options of using combat operations to help in counterinsurgency campaigns. Strategic restraint should be practiced before committing troops to fight in cities.

Urban Operations (Washington, D.C.: Joint Chiefs of Staff, 2013), accessed February 8, 2017, http://www.dtic.mil/doctrine/new_pubs/jp3_06.pdf.

What Tactics should be used in Urban Warfare?

In urban warfare, strict military tactics apply. As defined in chapter 1, tactics are “the arrangement and conduct of combat.”¹²⁰ They are a subset of operations. Tactics are the tools that are used to conduct operations and attain strategic objectives.

Looking at the Commando 21 concept of the United Kingdom’s Royal Marine Corps and reports written by American military researchers, it becomes clear that the focus on armies, divisions, and brigades of the past thousand years has massive implications again now.¹²¹ The urban operating environment requires well-trained squads, where the single operator can engage the enemy and win. Placing the focus on the individual warfighter and the four-man fire team allows warfighters to swarm through the urban battlefield.¹²²

To successfully bring to bear the fighting power of individual squad members in an urban operating environment, these squad members need to receive training in Close Quarters Battle (CQB) tactics. CQB tactics are useful for the clear-hold-build-transition operational concept that is utilized to conduct counterinsurgency operations. CQB is the only type of tactic that allows warfighters to successfully engage in combat in urban

¹²⁰ Sun-Tzu and Clausewitz, *The Book of War*, 329.

¹²¹ H. J. White, *Commando 21: An Increase in Combat Power and Flexibility* (DTIC Document, 2002), accessed February 23, 2017, <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA509029>.

¹²² *Ibid*, 14.

areas. CQB includes fighting with small arms and combatives.¹²³ The CQB skills of every warfighter should be improved to improve the effectiveness of the military to fight and win in urban combat engagements.

The ability to fight with small arms and the use of combatives is important for urban warfare. In a very enclosed and restrictive operating environment, the most effective combat tools are small arms and hand-to-hand combat techniques.¹²⁴ While this has been well known since the Second World War, the issue now has become that the urban battlefield is more complex than the battlefields in former conflicts. Close quarter combat is physically taxing and dangerous for soldiers, but it is also a skillset that allows policymakers to send warfighters into very difficult operating environments when necessary.

How can we deal with the Challenges of Urban Warfare?

What can be done to strategically deal with the problems of urban warfare? The difficulty of the urban terrain, planning and conducting operations, and providing intelligence in this difficult operating environment are the major factors that make urban warfare so challenging. As was discussed in chapter 1, a successful strategy requires a well-formulated policy and operational planning. The complexity of urban areas is only

¹²³ USMC, *Close Combat*, 1st edition. (Paladin Press, 2000); US Army, "Official Home of Modern Army Combatives," *US Army Maneuver Center of Excellence*, last modified September 26, 2016, accessed February 15, 2017, <http://www.benning.army.mil/Armor/316thCav/129/Combatives/>.

¹²⁴ Rex Applegate, *Kill Or Get Killed*, New Revised and Enlarged edition. (Boulder, Colo.: Paladin Press, 1976).

going to increase through exacerbating urbanization. The sound strategic choice for dealing with urban warfare is to emphasize the operational level. Operational design for combat in urban environments requires a clear embrace of the shape – clear – hold – build – transition approach stated in chapter 9 of *FM 3 – 24*.¹²⁵ The clearing element, i.e. the tactics to engage and defeat an enemy in an urban environment, is contingent upon the military and intelligence community’s ability to have the political support to conduct targeted Special Operations. The majority of popular support can be turned in one’s favor by winning hearts and minds, and controlling the population.¹²⁶ The radical hardliners and ideologues, and the center of gravity of a sub – state actor group, however, must be taken on directly. To that end, the tactical toolkit that is at the disposal of military forces needs to be understood by policymakers. A more holistic understanding of tactics can then be integrated in the formulation of the rules of engagement (ROE). As the ROE guide the Tactics, Techniques, and Procedures (TTPs) and Standard Operating Procedures (SOPs) that are used by the infantry, they have a direct impact on the outcome of tactical engagements.

The better policymakers and civilian government officials understand how their strategy and the ROE affect the TTPs and SOPs through which warfighters can bring to bear their combat power in an urban operating environment that is complex because of its architecture [terrain] and the presence of civilians and other non – combatants in these cross-sectional urban spaces, the easier it will be for combat troops to conduct missions

¹²⁵ *FM 3-24*, 9-1 to 9-14.

¹²⁶ Mansoor and Petraeus, *Surge*, xiv-xv.

in urban areas. In this kind of operating environment, Operations Other Than War (OOTW) such as COIN, and Stability Operations are likely to occur in conjunction with combat (kinetic) operations. The case studies in chapters 3 and 4 showcase this. Improvements in direct action capabilities can increase the operational options at the disposal of policymakers and battlefield commanders. The infantry squad and the potential “Commando 21” structure must take a more prominent role in training and pre – deployment preparation. In the past decade, several monographs and papers on this topic have been published by TRADOC’s Combat Studies Institute and the School of Advanced Military Studies at the Command and General Staff College, all located at Fort Leavenworth, KS.¹²⁷ These efforts however, are not enough.

With urban areas already at the center of modern campaigns, the preparation of squads needs to be made a more central part of the military maintenance and preparation efforts. To allow policymakers the option of deploying troops to urban combat zones, the joint force needs to be centered around ground combat troops. If policymakers and national security staff want to rely on the military to conduct operations in urban environments, the ability to wage urban warfare must be improved.

Taking on this field on the military side requires a better understanding of the urban operating environment and how to conduct operations in it. Since the mid – 1990s, it has been clear that intelligence gathering is essential in urban areas (HUMINT).¹²⁸

¹²⁷ US Army, “Primer on Urban Operations,” *Army University Press*, last modified March 28, 2017, accessed March 29, 2017, <http://armypress.dodlive.mil/primer-on-urban-operations/>.

¹²⁸ Peters, “Our Soldiers, Their Cities,” 43–50. Peters mentions the need for a “National Training Center for Urban Combat.”

Only if this effort is reinforced can intelligence, surveillance, and reconnaissance (ISR) remain an asset when confronting urban warfare situations, whether these occur in shantytowns or megacities of the future. Infantry troop training needs to be updated. Infantry squad tactics can become more flexible by emphasizing the importance of individual tactics and techniques, and the randomness of tactics and techniques in urban warfare. Allowing squad leaders flexibility in the selection of tactics provides them with more options to fulfill a mission.¹²⁹ (For more details, please refer to the Recommendations section.)

¹²⁹ Earl J. Catagnus, Jr. et al., "Infantry Squad Tactics: Some of the Lessons Learned during MOUT in the Battle for Fallujah," *Marine Corps Gazette* 89, no. 9 (September 2005), <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA489647>.

Urban Operations

Urban operations are the most recent revision of operational doctrine for urban warfare.¹³⁰ The proposed ROE try to safeguard the civilian population and the non-combatants in the field of operations. Tactical responses that deal more with the combat engagements are, however, not discussed in this thesis. Direct action missions, infantry combat and rifle squad tactics, and the use of infantry units for counterinsurgency are available in other publications.¹³¹ These different publications deal with Tactics, Techniques and Procedures (TTPs), Standard Operating Procedures (SOPs), operations design, and doctrine. The ability to use these in urban environments is necessary to fulfill the mission objectives. Only if these objectives are achieved, can policy goals be reached. To fulfill these objectives, operations need to be conducted.¹³²

The military component of fulfilling mission objectives is to maintain and improve the ability to conduct joint urban operations. While these military operations are executed by military personnel, they are guided by the directives of policymakers. These, through the issued ROE, have a direct effect on the way operations are conducted.

Successful urban operations require a wide range of operating procedures. Policymakers are not involved in planning military operations. To effectively link urban operations back to policy, the tactics and procedures that the military has at its disposal need to be communicated to them. This, in theory, would allow for an improvement in

¹³⁰ Joint Chiefs of Staff, *JP 3-06 Joint Urban Operations*.

¹³¹ *FM 3-24*, 6-5 to 6-6.

¹³² Joint Chiefs of Staff, *Joint Publication 5-0*, ix.

the formulation of strategic goals in relation to conducting combat operations in urban environments.

Difficulties of Urban Warfare: Combat Tactics and Policymakers

The field manuals and tactics available to the infantrymen engaging in combat are not well known in policymaking circles. A perfect example of this is the Army's *FM 2 – 22.3 Human Intelligence Collector Operations*. While many policymakers are critical of the manual's "Appendix M: Restricted Interrogation Technique – Separation",¹³³ it can be assumed that most of these policymakers have not read this part of the manual.

This is not the fault of policymakers. Field manuals, doctrinal publications, and operations manuals are documents written for internal use by military professionals. They do not have a political audience in mind. There is very little that can be done to remedy this. Yet, there is an example of a policymaker making a bright decision for military personnel at the tactical level: Secretary of Defense Donald Rumsfeld's role in the creation of the United States' Marine Corps Special Operations Command (MARSOC) and the reorganization of the United States Special Operations Command (USSOCOM) that coincided with this.¹³⁴ The reforms improved the effectiveness of these units considerably.

In October 2005, the creation of MARSOC was initiated by then Secretary Rumsfeld. The unique skillset of the Marine Corps' reconnaissance forces was seen as an

¹³³ *FM 2-22.3 Human Intelligence Collector Operations* (Department of the Army, 2006), M-1 to M-10, accessed February 11, 2017, <https://www.state.gov/documents/organization/150085.pdf>.

¹³⁴ 10 February, 2012 · Industry Profiles, and V4N1, "MARSOC, Part 1: Devil Dogs of SOCOM," *Small Arms Defense Journal*, n.d., accessed February 14, 2017, <http://www.sadefensejournal.com/wp/?p=1102>.

asset by Secretary Rumsfeld to conduct special missions.¹³⁵ Rumsfeld's wide – ranging reforms for the Department of Defense and USSOCOM were the primary reason that these units and their specialized tactical skills gained more prominence in policymaking circles. These tactics became crucial elements in the fight against Al Qaida and its affiliate in Iraq, Al Qaeda in Iraq (AQI).¹³⁶ In particular, CQB tactics became ever more important as the Multi – National Force Iraq (MNF-I) conducted raids and direct action missions in Iraq. From this it can be seen that the use of tactics heavily depends on the ROE that policymakers decide to use as the guide for achieving their policy goals and strategic objectives.

Civil – Military Affairs, Tactics, and Urban Warfare

Policymakers do not seem to understand tactics. They do not need to know about them to formulate policy. Passing legislative reforms and submitting acts does not require an understanding of violence, but of the inner workings of government. Government officials throughout NATO member states and their allies need to be provided with an assessment of the importance of tactics. The more complex the operating environment becomes, the bigger the tactical toolkit must become. Hence, tactics are becoming an ever more important factor.

¹³⁵ “DONALD H. RUMSFELD > U.S. DEPARTMENT OF DEFENSE > Biography View,” accessed February 14, 2017, <https://www.defense.gov/About/Biographies/Biography-View/Article/602800>.

¹³⁶ After US and coalition forces left Iraq, AQI morphed into the Islamic State of Iraq and the Levant (ISIL).

I believe that this disconnect is more the result of the increasing complexity of warfare than the result of an active disconnect between politicians and military professionals because the topic has become so complex. Explaining the importance of a wide array of tactics to policymakers and government officials is the role that experts in this field need to take on.

To ensure the successful conduct of urban (warfare) operations, combat tactics need to be clear. The ROE that policymakers formulate are the ramifications for a successful campaign to succeed in an urban area. Ridding ourselves of overly complicated definitions of strategy will allow us to focus most efforts on identifying salient strategic objectives and devising the operational concepts necessary to achieve them. As was demonstrated in chapter 1, policy, strategy, and tactics are interconnected. The ROE guide the use of tactics and affect the conduct of operations.

How do we solve this issue? We must clearly and concisely communicate how to improve political understanding of the importance of tactics for the design and conduct of operations. The urban operating environment requires combat troops to have a broad spectrum of tactics with which they can successfully close in and destroy enemy forces. Setting lofty policy goals that do not take the on-the-ground situation into account is a risk factor that adversely affects the conduct of operations.

Strategy, Rules of Engagement, and Tactics

The rules of engagement (ROE) are political while combat tactics are military in nature. Yet, the ROE guide the use of tactics throughout the conduct of operations. The urban operating environment requires combat troops to have a broad spectrum of tactics with which they can successfully close in and destroy enemy forces. Setting lofty policy goals that do not take the on-the-ground situation into account is a risk factor that adversely affects the conduct and outcome of operations. ROE are political but they affect how tactics can be used by military professionals. ROE should be defined after their potential effects have been understood by the politicians who draw up the policy from which the ROE are derived. This way, policymakers will have a direct effect on the battlefield.¹³⁷

This is crucial for the practice of urban warfare, where the ROE are so very vital, so that the military does not lose its legitimacy when fighting, especially in relation to conducting urban warfare operations as part a counterinsurgency campaign.

¹³⁷ James Wright, "What We Learned From the Korean War," *The Atlantic*, July 23, 2013, accessed April 26, 2017, <https://www.theatlantic.com/international/archive/2013/07/what-we-learned-from-the-korean-war/278016/>.

The Urban Battlefield: From Shantytowns to Large and Megacities

The range of military operations that can be executed in urban environments depends mostly on the variety of tactics that can be utilized. The battlespace affects a fighting force's level of effectiveness. The urban operating environment largely diminishes this.¹³⁸

The urban operating environment is a cross – sectional space. Martin Krieger has defined urban space as having many layers and possessing “vitality”.¹³⁹ Conflicts in cities can drain a city of its life.¹⁴⁰ As Norton observes, finding a balance between waging battle and preserving livable conditions in large urban areas is especially difficult.¹⁴¹

Shantytowns can cover large areas but their infrastructure is not very sophisticated. The areas they cover, however, make it very difficult for combat teams to navigate them. Megacities, on the other hand, have a population of at least ten million people. While these types of cities do not exist yet, large cities clearly do. It is safe to assume that megacities will have several features. Sophisticated infrastructure systems, suburban spaces and skyscrapers, and a plethora of different ethnic cultures are likely to make the megacities of the future difficult to secure.

¹³⁸ Joint Chiefs of Staff, *JP 3-06 Joint Urban Operations*, I-2.

¹³⁹ Martin H. Krieger, *Urban Tomographies* (Philadelphia: University of Pennsylvania Press, 2011).

¹⁴⁰ Kilcullen, *Out of the Mountains*, 19-22.

¹⁴¹ Richard J. Norton, “Feral Cities,” *Naval War College Review* 56, no. 4 (2003): 99–102. For the analytical framework that Norton lays out for assessing the health of a city see page 101.

To take on these challenges strategically, planning, force structure, and new operating concepts need to be developed. Multi-domain Battle Concept is an example of an operating concept that fits into the larger strategic picture in urban warfare.¹⁴² While there are already some existing operational concepts for urban warfare, the diversity of urban environments suggests that more urban warfare operational concepts should be developed.¹⁴³ This would allow the military to take on the challenges of urban warfare from a more strategic position, allowing them to conduct operations to achieve the objectives set out in a strategy.

The Urban Combat Spectrum: Why fighting in Cities is as important as winning hearts and minds

As has been demonstrated throughout this chapter, the ability to fight is of paramount importance in cities. Formulating a strategy that takes urban warfare into account requires combat operations to be taken into consideration when developing a counterinsurgency campaign plan. While it is difficult for policymakers to explain, fighting still counts in urban areas.

In his classic book *Counterinsurgency Warfare: Theory and Practice*, David Galula discusses the interrelationship of tactics and strategy for insurgency warfare. Galula highlights that there are several crucial points that insurgents must take into

¹⁴² US Army, *Army Operating Concept 2014 (TP525-3-1): Win in a Complex World 2020-2040* (Fort Eustis, VA: TRADOC, 2014), <http://www.tradoc.army.mil/tpubs/pams/tp525-3-1.pdf>.

¹⁴³ Joint Chiefs of Staff, *JP 3-06 Joint Urban Operations*.

account to wage a successful insurgency.¹⁴⁴ He also explains that there are several steps that can be taken to actively fight an insurgency. The majority of his recommendations directly refer to combat operations against insurgents.¹⁴⁵

Guerrillas, terrorists, and violent gangs need to use a wide array of tactics because they lack the resources a state has at its disposal. Especially in regard to combat engagements, non-state groups lack the tactical abilities to hold ground. The level of complexity that urban areas add to combat indirectly increases the fighting capabilities of asymmetric fighting forces. Hence, this more complex terrain is not easily conquered by states, but more easily defensible for non-state actors.

To assure that deployed combat and stabilization forces have the ability to engage in urban combat successfully, policymakers need to enable them to do so. This is only possible if the ROE and tactics can be incorporated into a strategy that allows the combat forces to dominate the enemy. Thus, whatever type of combat mission is authorized, it needs to be in line with the policy goals that have been laid out.

Policy Goals in Urban Warfare

Most issues related to combat tie back to achieving political goals.¹⁴⁶ While Laqueur cites many issues as important to guerrillas, the struggle against the people in

¹⁴⁴ David Galula, *Counter-Insurgency Warfare: Theory and Practice*, ed. Robert R. Bowie, 1st edition. (Frederick A. Praeger, 1964), 64–76.

¹⁴⁵ *Ibid.*, 77.

¹⁴⁶ Walter Laqueur, *Guerrilla Warfare: A Historical and Critical Study* (New Brunswick, N.J: Transaction Publishers, 1997), xvii and 385.

power remains their main concern. To be successful in this struggle, many factors must be taken into account. In relation to policy, this means that non-state actors try to affect political change in a society by influencing the local population. While this can have positive effects when groups fight for freedom and against oppressive governments, the influence exerted on people has been more violent and negative. An example of this is AQI (Al Qaeda in Iraq), now better known as ISIL (Islamic State of Iraq and the Levant), which was the most violent terrorist group during the Iraq war.¹⁴⁷ Such violent behavior however, is counterproductive for non-state actors. In this specific case, the United States and Multinational Forces in Iraq (MNF-I) were able to use violent acts committed by AQI to turn public opinion against them. This was part of the Surge in Iraq in 2007 and contributed to the U.S.'s overall policy goal of stabilizing Iraq.¹⁴⁸

Achieving policy goals therefore, requires political leaders to be willing to authorize the used combat tactics that can be very risky for the local population. This balance between combat and non-kinetic tactics is only achievable through good operations planning. Urban warfare will not be avoided in the future. Understanding what tools are at the disposal of the military is part of creating a holistic “whole of government (WOG) approach” that takes the largest possible number of solutions into account from which choices can be made.

¹⁴⁷ Kilcullen, *Out of the Mountains*, 30-40.

¹⁴⁸ Ibid, 140-141.

Chapter 2 Conclusion

Urbanization is transforming the paradigm of urban conflict and combat. As we could see, the freedom fighters and guerrillas of the 1960s and 70s were of the opinion that their political activities and propaganda operations were necessary to support their armed struggle against the “Establishment” and its henchmen. The social aspects of counterinsurgency should, by no means, be ignored. However, in the struggles for Baghdad, Basra, Ramadi, and now Mosul, combat was and is the key element that allows government forces to turn the tide against the insurgents and terrorists who were / are not willing to surrender their positions without a fight.¹⁴⁹ Also, in the case of the attacks in Europe on Paris, Brussels, and Munich, the ability of police forces to engage the attackers in firefights in these urban environments were necessary, albeit bloody. Programs to counter radicalization by White Supremacists, Jihadists, violent left-wing extremist groups, and gangs have their place. In the same spirit, governments need to be able to tactically overpower these types of groups in urban combat since the likelihood of them giving up peacefully is not very high. Both kinetic and non - kinetic tactics must be understood to be part of a comprehensive strategy that allows commanders to use a wide array of combat tactics. Kinetic tactics include combat tactics to directly fight and defeat an enemy. Non-kinetic tactics focus much more on helping the local population to win them over. An example of this is providing water and food during a counterinsurgency

¹⁴⁹ For Baghdad see David E. Johnson, M. Wade Markel, and Brian Shannon, *The 2008 Battle of Sadr City*, Occasional paper (Rand Corporation) OP-335-A (Santa Monica CA: RAND, 2011); for Ramadi and Basra see Kilcullen, *Out of the Mountains*, 138 and 272.

campaign. This shows the locals that the military is not fighting the people, but is interested in their wellbeing.

We now turn to two contemporary case studies on urban warfare. The complexity of the modern urban battlefield will become apparent, along with the importance of the role of policymakers in battlefield actions. It will also become clear that the interrelations between policy, operations, and the use of tactics require a clearly defined strategy.

Chapter 3: Case Study One – Operation Protective Edge

Israel's Security Policy and Strategy towards Gaza

The state of Israel has a three-pronged approach to maintaining its security. The three elements are: maintaining conventional force superiority over potential adversary nations, preventing terrorist attacks in Israel, and employing decapitation strikes and raids to render an adversary inoperable.¹⁵⁰ While Hamas is the ruling Palestinian party, it tactically behaves like a non-state actor in conflict. Hamas fighters do not engage in symmetric conflict with the IDF.

As part of this strategy, Israel employs several technologies that enable them to defend against missile strikes, maintain a border maintenance system, and detect tunnels that can be used both for maintaining the economy in Gaza but also for planning terrorist attacks against Israeli civilians. While the importance of technology for missile defense and for tunnel detection cannot be denied, the use of these technologies does not resolve the underlying security issues.

¹⁵⁰ Eado Hecht and Eitan Shamir, "The Case for Israeli Ground Forces," *Survival* 58, no. 5 (September 2, 2016): 123.

Background – Israeli Infantry in Urban Combat

Operation Protective Edge took place in Gaza in the summer of 2014. The operation was under review by the Israeli state comptroller, Yosef Shapira. The report was published on February 28, 2017.¹⁵¹

As policy goals and strategic objectives can only be attained if tactics can be brought to bear on the battlefield, the ways in which forces are employed determines the success of operations. This, in turn, affects the success or failure of strategy and policy.

The main issue was connecting the tactical actions of the Israeli Defense Force (IDF) to the policy goals of the Israeli government. This led to the change from the use of aerial bombardment to deploying IDF infantry in the Gaza Strip. This case study reviews the strategy, operational concepts, and tactics that were used by the IDF and Hamas in Operation Protective Edge.

The overreliance on air power is not an effective way to conduct urban operations. At first, it appears that the IDF had not learned its lessons from Operations Pillar of Defense (2012) and Cast Lead (2009). Both these operations relied heavily on the use of air power. This resulted in large numbers of Palestinian civilian casualties.

As the fight carried on, the IDF and Israeli political leadership realized the importance of tactics, and that technology alone cannot bring about victory. CQB tactics bear more importance in urban combat than technological superiority. After initially trying to dominate Hamas' position purely through the use of air power, the Israeli

¹⁵¹ For the full report (unfortunately only available in Hebrew) see, State of Israel, "מבצע (Operation Protective Edge Report)," last modified February 28, 2017, accessed April 18, 2017, <http://www.mevaker.gov.il/he/Reports/Pages/568.aspx>.

government decided to use ground combat troops. Regular infantry formations as well as IDF Special Forces units were deployed in the second stage of the operation.

As IDF operations show, the evolution of these ideas is constantly ongoing.¹⁵² Combat is fluid. The use of CQB tactics has intensified in the Gaza Strip as operating concepts have evolved from Operation Cast Lead (2009), over Operation Pillar of Defense (2012), to Operation Protective Edge (2014). Operation Protective Edge is an example of a conventional military force confronting an asymmetric opponent in an urban operating environment.¹⁵³

¹⁵² Jeffrey White, "The Combat Performance of Hamas in the Gaza War of 2014 | Combating Terrorism Center at West Point," September 29, 2014, accessed February 21, 2017, <https://www.ctc.usma.edu/posts/the-combat-performance-of-hamas-in-the-gaza-war-of-2014>.

¹⁵³ "Short War in a Perpetual Conflict: Implications of Israel's 2014 Operation Protective Edge for the Australian Army," Australian Army., accessed January 20, 2017, https://www.army.gov.au/sites/g/files/net1846/f/arp9_glen_short_war_in_a_perpetual_conflict.pdf.

The Operational Environment: Built-up Areas

The Gaza Strip is a densely populated urban area. Separating targets from innocent civilians proves very difficult for the IDF. Yet, civilian casualty numbers are very low. The main reason for these low numbers are the ROE that informed IDF commanders and soldiers in Operation Protective Edge.

The Hamas tunnel system highlights the importance of CQB tactics in urban warfare. The tunnel system was developed by Hamas to subvert Israeli government forces. The tunnels led to IDF security posts and Israeli schools, and were supposed to enable Hamas to execute terror attacks more easily by lowering the likelihood of their fighters being exposed before they could carry out a terror attack. The effective use of CQB tactics allowed the IDF to directly attack Hamas fighters and isolate them from civilian Palestinians.

Fighting in Tunnel Systems

Tunnel systems and asymmetric warfare practices affected the urban warfare conduct by the IDF. As IDF Brig. Gen. Nechemya Sokal states, new operating concepts are important for this kind of warfare (despite new innovations in ISR technologies):

‘We developed doctrine and training [for] our forces in order to mitigate this challenge. Not only finding the tunnel, but also how to deal with it after we find it. How to map it, how to get inside it if it is needed—and we prefer not to—and how to destroy it.’ Both doctrine and technology also impact a uniquely challenging aspect of tunnel warfare: actually fighting in them. ‘Fighting in this environment brings a whole new challenge to the fighting units,’ Sokal says. “We have to change our doctrine . . . because underground facilities are not so intuitive as buildings and places we are used to being.’ Technology also offers a key solution. “This kind of environment—underground facilities and tunnels—is a risky environment. Fighting in it, and mapping it, and collecting information about it is a risky mission. And if you can do these missions

without risking your soldiers, I think we should prefer to do it in this way. Robots are a very effective tool to reduce the risk. We tried and succeeded to develop special robots to fit this mission.’ Moving forward, Gen. Sokal does not believe that technology will play a dominant role in tunnel warfare. He does not believe that the importance of combat troops will be replaced by autonomous systems. ‘... for example, moral decisions, even. To target a house, if it has civilians in it or not. These are decisions we won’t let machines do.’¹⁵⁴

Thus, the IDF sent soldiers directly into the tunnel systems to deal with the threat.

However, the tunnels were only rendered non-operational when the IDF flooded many of them. This tactic was also continuously used after Operation Protective Edge had ended. Egypt reportedly flooded dozens of the remaining tunnels in December 2016.¹⁵⁵ The tunnels are important to Hamas, since they seem to be using them for smuggling and also for conducting terror attacks.

Israeli Political Fallout

Operation Protective Edge has received much media and political attention. As the issues relating to the operation are mostly political, a review was ordered by the Israeli government. State Comptroller Yosef Shapira was put in charge of the review process.¹⁵⁶ There is a large amount of confusion concerning the roles of decision-makers and senior

¹⁵⁴ “MWI Podcast: Tunnel Warfare and Robots with IDF Brig. Gen. Nechemya Sokal,” *Modern War Institute*, February 15, 2017, accessed February 16, 2017, <http://mwi.usma.edu/mwi-podcast-tunnel-warfare-robots-idf-brig-gen-nechemya-sokal/>.

¹⁵⁵ Anna Ahronheim, “Three Palestinian’s Killed in Gaza Tunnel ‘Flooded by Egypt,’” *The Jerusalem Post* | *JPost.com*, last modified December 4, 2016, accessed February 2, 2017, <http://www.jpost.com/Arab-Israeli-Conflict/Three-bodies-of-Palestinians-missing-since-tunnel-collapse-recovered-474386>.

¹⁵⁶ Gideon Allon, “Report on Cabinet’s Actions during 2014 Gaza Fighting to Be Released,” last modified January 24, 2017, accessed February 21, 2017, http://www.israelhayom.com/site/newsletter_article.php?id=39807.

military officials, and parts of the pertaining report having been leaked. Prime Minister Benjamin Netanyahu may be involved.¹⁵⁷ This shows that internal political problems influenced a complex urban operation and hence complicated matters further.

Shapira has been very vocal about the mistakes made by policymakers. The former head of Shin Bet, Israel's internal security service, has stated: "The only advantage the state comptroller has over the subjects of his audits is the perspective gained by hindsight. This may prevent him from walking a real mile in decision-makers' shoes. Sometimes breaking protocol is necessary."¹⁵⁸

Urban Warfare and the IDF

The IDF has the largest urban warfare training program in the world. This gives the IDF a good opportunity to train warfighters in the conduct of urban operations and the use of CQB tactics.

The tunnel system that the IDF was confronted with in Gaza was uncharted military territory. Up to this point, the IDF did not have to deal with this kind of an operating environment. Therefore, the tunnel system placed a large burden on the tactical

¹⁵⁷ AFP, "Comptroller Irritated over Leak of His Damning Gaza War Report," *The Times of Israel*, accessed February 21, 2017, <http://www.timesofisrael.com/comptroller-irate-over-leak-of-damning-gaza-war-report/>.

¹⁵⁸ Yaakov Amidror, "The Wisdom of Hindsight," *Begin-Sadat Center for Strategic Studies*, last modified January 31, 2017, accessed January 31, 2017, <https://besacenter.org/perspectives-papers/wisdom-hindsight/>.

abilities of the IDF¹⁵⁹, and hence was both a tactical and an operational challenge for the IDF. In the end, the IDF flooded the majority of the tunnels to render them useless.¹⁶⁰ However, the IDF still needed to engage in close quarters engagements with Hamas fighters. This shows that the tunnel threat only exacerbated the difficulties and dangers of urban warfare.

Hamas' Center of Gravity

At first, Hamas' center of gravity were the streets and houses of the Gaza Strip. As the Israeli air campaign commenced, Hamas shifted the center of gravity of its fighting force to its tunnel system. This made it much easier for Hamas fighters to defend their positions.

War Crimes Allegations

The Israeli government has stated that Hamas committed war crimes in the course of this conflict.¹⁶¹ The overall complexity of the situation makes it likely that the IDF itself did kill civilians, especially at the beginning of the operation. It remains to be seen whether the rest of the allegations are also going to be proven. If these were proven to be

¹⁵⁹ Nicole Watkins and Alena James, "Digging Into Israel: The Sophisticated Tunneling Network of Hamas," *Journal of Strategic Security* 9, no. 1 (April 1, 2016), <http://scholarcommons.usf.edu/jss/vol9/iss1/8>.

¹⁶⁰ Ahronheim, "Three Palestinian's Killed in Gaza Tunnel 'Flooded by Egypt.'"

¹⁶¹ High Level Military Group, *An Assessment of the 2014 Gaza Conflict*, October 2015, 42, accessed April 15, 2017, <http://www.high-level-military-group.org/pdf/hlmg-assessment-2014-gaza-conflict.pdf>.

correct, then the IDF violated the LOAC (Law of Armed Conflict) and its own ROE.¹⁶² The extent to which the political confusion in the government could have been at fault remains inconclusive.

Similarly, Hamas has been charged with war crimes. Rockets were launched directly at civilian Israeli targets. As for the IDF, the investigations are still ongoing. The Israeli High Command is fighting the lawsuits in court.¹⁶³ It should be noted that an expert group comprised of high level military officers from different nations wrote a report on the IDF's conduct during Operation Protective Edge. The High Level Military Group (HLMG) found that the IDF in fact exceeded expectations in regard to trying to keep the civilian Palestinian population safe.¹⁶⁴

The IDF was aware of the LOAC and planned its engagement accordingly.¹⁶⁵ This also influenced the decision to deploy ground troops because the use of ground troops demonstrates the legitimate use of force while taking the utmost precautions to safeguard the civilian population. Prior to the deployment of ground forces however, the Israeli government took several steps to prevent terrorist attacks (as is their security policy). These steps were implemented over the past decades. These approaches included the use of several technologies. The efforts made by the IDF included the following measures:

¹⁶² Ibid., 43.

¹⁶³ "IDF Gears up for War Crimes Accusations, Plans Internal Review of Gaza Operation," *The Jerusalem Post* | *JPost.com*, accessed February 21, 2017, <http://www.jpost.com/Operation-Protective-Edge/Report-IDF-gears-up-for-war-crimes-accusations-plans-internal-review-of-Gaza-op-370312>.

¹⁶⁴ High Level Military Group, *An Assessment of the 2014 Gaza Conflict*, 42-43.

¹⁶⁵ Ibid., 43.

The civilian population in Gaza was warned before the IDF attacked any area. While this diminishes the military's ability to exploit the element of surprise in combat, it enables civilians to leave an area before fighting occurs.¹⁶⁶

The IDF also used so-called roof knocker bombs to warn people that their house would be struck by a bomb or missile. Roof knocker bombs do not contain explosives; they are used to warn civilians of an incoming airstrike.¹⁶⁷ In some instances, this led to Palestinians climbing onto roofs to prevent Israeli airstrikes.¹⁶⁸

Fences have been built as part of Israel's strategy to prevent terrorist attacks on Israeli soil. Here, the importance of the creating physical barriers contributed to Hamas using rockets and digging tunnels to attack Israeli citizens. Other tunnel systems were dug by Hamas since the 1980s to help keep Gaza's economy afloat.¹⁶⁹

While all these high-tech capabilities are deployed, I argue that wars and conflicts are fought with technology but won by soldiers. Thus, the use of infantry was a necessary move to counter the asymmetric threat Hamas posed to the Israeli population.

Despite treating Hamas as a terrorist organization, Israel is still obligated to adhere to the LOAC while engaging in combat. Hamas conducts much of its warfare using terrorist tactics. This means that Israel has the right to defend itself against it. As

¹⁶⁶ Ibid., 65.

¹⁶⁷ Vanessa Johnston, *Video Shows Israeli "knock on the Roof" bombing Tactic In...*, n.d., accessed May 18, 2017, <http://www.reuters.com/video/2014/07/12/video-shows-israeli-knock-on-the-roof-bo?videoId=322266392&videoChannel=1>.

¹⁶⁸ *The 2014 Gaza Conflict (7 July – 26 August 2014): Factual and Legal Aspects* (Tel Aviv, Israel: State of Israel, May 2015), 99–100, <http://mfa.gov.il/ProtectiveEdge/Documents/2014GazaConflictFullReport.pdf>.

¹⁶⁹ Watkins and James, "Digging Into Israel," 85-87.

Hamas leaders head the Palestinian authority, they also control an internationally recognized government. In contrast, the State of Israel assessed that Hamas and other terrorist organizations present in Gaza actively tried to violate the LOAC in an attempt to create fear in the Israeli population.¹⁷⁰ This however, legitimized the deployment of ground forces by the IDF because the Israeli population saw what was happening and acknowledged the need for launching ground combat operations into Gaza.

In relation to the complexity of urban warfare and politics, these allegations will only make it even more difficult for Israel and Palestine to resolve their decades-long conflict. The death of innocent civilians, especially children, only makes this harder.

Gaza has seen three major conflicts in the past eleven years. From Operation Cast Lead, over Operation Pillar of Defense, to Operation Protective Edge the number of close quarters combat engagements seems to have increased. Since Protective Edge's ground campaign was the longest one, Israeli willingness to engage in close quarters combat allowed the IDF to wage a successful ground campaign. Furthermore, it allowed them to keep many civilians in Gaza safe. The willingness to use ground combat forces, combined with ROE that allowed the IDF to be mindful of civilians, enabled the IDF to successfully engage Hamas fighters. This was only possible because the IDF infantry undergoes extensive urban combat training.¹⁷¹ Thus, as I have laid out this thesis, victory in this urban conflict was driven by the military's ability to use CQB tactics and the political will to let the infantry use them.

¹⁷⁰ *The 2014 Gaza Conflict*, 59.

¹⁷¹ High Level Military Group, *An Assessment of the 2014 Gaza Conflict*, 43.

Victory?

While the IDF was successful in their fight against Hamas, there was no decisive victory. What has become apparent, however, is that political meddling interfered in the IDF's operation.¹⁷² As there has been much political fallout in Israel over this operation, the lessons that can be drawn from it are threefold.

First, the IDF did rely too heavily on the use of air power in the early stages of the operations, which did not have the desired effect. One observer noted:

The images of dead Palestinian civilians that quickly went viral on social media during the operation placed Israel on the public relations defensive, with army spokespeople and politicians forced to explain to the international press how Israel was making every effort to avoid harming noncombatants.¹⁷³

The use of air power did not allow Israel to win a quick decisive victory. In fact, dropping bombs exacerbated the problem. Instead of making an effort to alleviate as many grievances as possible from the start, the bombing campaign reinforced the tensions between Israel and Palestine.¹⁷⁴ The decision to mobilize ground forces then only allowed for maintaining the status quo of the overall Israel – Palestine conflict. The IDF's use of ground troops did, however, lead to tactical successes.

Second, Israeli soldiers successfully destroyed the tunnel system built by Hamas. This, however, required political will more than tactical ability. The fact that the IDF was

¹⁷² Allon, "Report on Cabinet's Actions during 2014 Gaza Fighting to Be Released."

¹⁷³ "IDF Gears up for War Crimes Accusations, Plans Internal Review of Gaza Operation."

¹⁷⁴ White, "The Combat Performance of Hamas in the Gaza War of 2014 | Combating Terrorism Center at West Point."

able to destroy the tunnel systems once they had been ordered to do so shows that the tactical knowledge was already present in the IDF.

Third, the nexus where policymakers and military strategists interact cannot be ignored. Operation Protective Edge was wrought with political infighting between various government officials. It is a sign of a lack of political leadership if this kind of political fallout drags on for years. At the INSS Conference in January 2017, the political issues surrounding Operation Protective Edge were among the main talking points, and sparked much controversy.¹⁷⁵

The review report is a clear example of this. Although the report has not yet been published, parts of the document have been leaked to the press. Deep divides between politicians in the Israeli government were revealed. The IDF was very capable of responding to the threat posed by Hamas' tunnel system, but internal Israeli government politics were a potential source of risk.¹⁷⁶ It seems that the political dimension of Operation Protective Edge could have been detrimental to the combat operation.¹⁷⁷

It can be concluded, therefore, that tactical proficiency is as important as salient policy. The tactical successes that the IDF had were clearly hampered by the internal rivalry between politicians and government officials. Therefore, the events surrounding

¹⁷⁵ "INSS Conference 2017 - Summary," accessed April 21, 2017, <http://www.inss.org.il/index.aspx?id=5260#Bennett>.

¹⁷⁶ Gershon Hacoen, "War: The School of Life," *Begin-Sadat Center for Strategic Studies*, last modified March 7, 2017, accessed March 21, 2017, <https://besacenter.org/perspectives-papers/war-school-life/>; Yaakov Amidror, "Trade Insights, Not Barbs," *Begin-Sadat Center for Strategic Studies*, last modified March 8, 2017, accessed March 21, 2017, <https://besacenter.org/perspectives-papers/trade-insights-not-barbs/>.

¹⁷⁷ Gershon Hacoen, "War Is War," *Begin-Sadat Center for Strategic Studies*, last modified February 2, 2017, accessed February 2, 2017, <https://besacenter.org/perspectives-papers/war-is-war/>.

Operation Protective Edge are evidence that the strategic importance of urban warfare requires both clear policy guidelines and overwhelming tactical ability for a strategy to be successful. Without the support of politicians and decision-makers, military tactical experts cannot fulfill the objectives they are ordered to reach.

Chapter 3 Conclusion

The events of Operation Protective Edge show that urban warfare evolves constantly. Combat is fluid.¹⁷⁸ The use of CQB tactics has intensified in the Gaza Strip as operating concepts have evolved since Operation Cast Lead and Operation Pillar of Defense were conducted. Operation Protective Edge is an example of a conventional military force confronting an asymmetric opponent in an urban operating environment.¹⁷⁹

The urban operational environment is an extremely difficult battlefield. Urban warfare, as a component of urban conflict, affects policy, strategy, the conduct of operations, and the use of tactics. As urban warfare is an exceptionally difficult part of dealing with urban conflict, it requires clear strategic objectives. This is only possible if the policymakers are aware of the tactical tools that are available to the military. Political decision-makers choosing air power over the deployment of ground combat troops did not yield the desired results. The change from aerial precision strikes to the use of infantry, however, did result in many tactical successes being achieved. This, on the other hand, did not change the status quo that exists between Israel and Hamas. As could be seen in this case study, a diverse set of tactics must be balanced to fit the needs of the operations that are being conducted. Only if this is done, can operations contribute to attaining strategic objectives and policy goals.

¹⁷⁸ Hacothen, "War: The School of Life."

¹⁷⁹ "Short War in a Perpetual Conflict: Implications of Israel's 2014 Operation Protective Edge for the Australian Army," 4.

Chapter 4: Case Study Two – Retaking Eastern Mosul

Background

The timeline for this case study is March 24, 2016 to January 24, 2017. When President Trump was inaugurated on January 20, 2017, no immediate changes were made to the United States strategy to counter ISIL (Islamic State of Iraq and the Levant). The retaking of eastern Mosul on January 24, 2017 justifies this timeline. Even as this thesis is being written, the western part of Mosul is still under ISIL control.

The operation in this case study demonstrates the need to secure the wider battlespace, and to establish control of access and choke points so that control of the city can be regained by retaking the city. The use of CQB tactics as the means to oust ISIL from eastern Mosul was necessary, otherwise the political objective of retaking the city would not have been achieved. The fight for Mosul exemplifies how a military operation is conducted to reach a strategic objective, thereby attaining policy goals.

U.S. Policy Goals

The United States, as the main driving force behind Operation Inherent Resolve, stated that its goal was to “degrade and destroy” the Islamic State in Iraq and the Levant (ISIL).¹⁸⁰ This statement was made by President Obama back in 2014.

This policy goal was not a unilateral decision by the United States. While the United States is clearly taking the leading role in Operation Inherent Resolve, President Obama coordinated the goal with his country’s close allies from around the world.¹⁸¹ NATO and Arab countries are contributing to the goal of degrading and destroying ISIL. These international partners are taking on different roles in the fight against ISIL.¹⁸²

The Position of the Iraqi Government

The Iraqi government clearly stated that it will lead the fight against ISIL in Iraq. This was exemplified by the use of Iraqi military forces to envelop and isolate Mosul.¹⁸³

Prime Minister Haider Al-Abadi announced the deployment of Iraqi troops to fight ISIL and retake Mosul. He also requested additional U.S. military personnel to help

¹⁸⁰ “President Obama: ‘We Will Degrade and Ultimately Destroy ISIL,’” *The White House*, last modified September 10, 2014, accessed February 21, 2017, <https://obamawhitehouse.archives.gov/blog/2014/09/10/president-obama-we-will-degrade-and-ultimately-destroy-isil>.

¹⁸¹ *Ibid.*

¹⁸² Department of Defense, “Operation Inherent Resolve,” *Operation Inherent Resolve*, accessed February 17, 2017, <http://www.inherentresolve.mil/About-Us/>.

¹⁸³ Mark Perry, “Get Ready for Obama’s ‘October Surprise’ in Iraq,” *POLITICO Magazine*, accessed February 21, 2017, <http://politi.co/2aIwD4e>.

with the liberation of the city.¹⁸⁴ In keeping with the tradition of counterinsurgency, the Iraqi Security Forces (ISF) and their U.S. allies would work together to retake Mosul.

Iraqi government forces and U.S. Special Forces cooperated in the battle for eastern Mosul to use ground combat troops more effectively. While President Obama deployed more troops to Syria and Iraq, thereby taking on more political risk, the issue was that the American and Iraqi forces had to coordinate their actions in a better way.¹⁸⁵ By advising and assisting the ISF in the fight directly, U.S. Special Forces were able to contribute their knowledge and experience of urban warfare to the battle for East Mosul.

While the Iraqi government has a more immediate interest in degrading and destroying by retaking Mosul, the Iraqi strategic objective has been identical with the position of the United States. This goes to show that even in an international setting, the alignment of policy, strategy and tactics is possible. The ground campaign against ISIL in East Mosul could only be initiated through U.S. – Iraqi cooperation. Attaching American military advisers to Iraqi troops and assigning them the task of retaking East Mosul enabled success on the tactical level. Having examined the policy positions, we now turn to the strategy of this fight.

¹⁸⁴ Stephen Kalin and Yeganeh Torbati, “U.S. to Send More Troops to Iraq ahead of Mosul Battle,” *Reuters*, September 29, 2016, accessed February 21, 2017, <http://www.reuters.com/article/us-mideast-crisis-iraq-usa-idUSKCN11Y1G8>.

¹⁸⁵ “Obama Sends More Special Forces to Syria in Fight against IS,” *Reuters*, April 27, 2016, accessed February 21, 2017, <http://www.reuters.com/article/us-mideast-crisis-usa-syria-idUSKCN0XL0ZE>.

Strategy

Policy guided the development of a strategy that relied heavily on aiding the Iraqi and Kurdish forces through air strikes. No large formations of ground troops were to be deployed to Iraq or Syria to fight ISIL. This is still the case as this thesis is being written.¹⁸⁶ Special Forces troops were, however, deployed to provide military assistance to the Iraqi ground offensive.¹⁸⁷

These military advisers have played a decisive role in planning the assault on Mosul.¹⁸⁸ Acting as force multipliers, the United States Special Forces along with their Iraqi counterparts were able to enter the city of Mosul on March 24, 2016.¹⁸⁹ The strategic objective of the operation is to recapture Mosul, thereby reclaiming ISIL's last stronghold in Iraq.¹⁹⁰ The majority of the force involved in the campaign for eastern Mosul were Iraqi troops, with US Special Forces assuming a supporting role.¹⁹¹

¹⁸⁶ While the Trump Administration has ordered a review of this strategy, it remains in place at the moment.

¹⁸⁷ "Obama Sends More Special Forces to Syria in Fight against IS."

¹⁸⁸ Ibid.

¹⁸⁹ Chmaytelli Maher and Saif Hameed, "Iraqi Forces Claim Recapture of Eastern Mosul after 100 Days of Fighting," *Reuters* (Baghdad, January 23, 2017), accessed January 30, 2017, <http://www.reuters.com/article/us-mideast-crisis-iraq-mosul-idUSKBN157231>.

¹⁹⁰ Ibid.

¹⁹¹ Jane Arraf, "Iraqi Troops Edge Deeper Into Mosul — With Caution," *NPR.org*, last modified January 15, 2017, accessed January 30, 2017, <http://www.npr.org/sections/parallels/2017/01/15/509643740/iraqi-troops-edge-deeper-into-mosul-with-caution>.

ISIL's Center of Gravity

ISIL chose the city of Mosul as its center of gravity. As Malsin states: "Mosul is the largest population center under ISIS control, a key source of prestige and resources and a living advertisement for the group's claim that it is building a state."¹⁹²

This highlights why urban warfare is so very difficult. By utilizing the entire city as its strongpoint, ISIL has made it very difficult for U.S. and Iraqi forces to target ISIL fighters. As discussed in chapter 1, Clausewitzian theory dictates that one should destroy the enemy's center of gravity to defeat them. This is not possible if one wants to retake a city instead of destroying it. Also, a government and its policymakers cannot expect soldiers to fight against a brutalizing force such as ISIL and allow one's warfighters to attack both enemies and civilians indiscriminately. This is neither moral nor just, nor is it in the interest of the strategic objective.¹⁹³

As was discussed in chapter 2, the city has multiple dimensions. Thus, fighting takes place in the streets, sewage systems, and in buildings. This was no different in East Mosul.¹⁹⁴ The complexity of the urban operating environment increases the level of difficulty for fighting troops. To achieve this, points of efforts need to be chosen. It is

¹⁹² Jared Malsin, "Inside the Next Big Battle Against ISIS," *TIME.com*, n.d., accessed February 21, 2017, <http://time.com/isis-mosul/>.

¹⁹³ For an excellent discussion of morality in war see, Michael Walzer, *Just and Unjust Wars: A Moral Argument with Historical Illustrations*, 5 edition. (New York: Basic Books, 2015).

¹⁹⁴ For fighting in these different streets, tunnels and sewage systems, and buildings see (respectively) Sean O'Melveny, "More ISIS Drones Brought Down in Fight for Mosul," Text, *Military.com*, accessed January 28, 2017, <http://www.military.com/daily-news/2017/01/11/more-isis-drones-brought-down-fight-mosul.html>; Jared Malsin and Sheikh Amir, "Qurans and Solar Cells — Inside the ISIS Tunnels Around Mosul," *Time*, last modified October 21, 2016, accessed February 21, 2017, <http://time.com/4541647/isis-defensive-tunnels-mosul-iraq/>; Arraf, "Iraqi Troops Edge Deeper Into Mosul — With Caution."

important that combat troops are given enough freedom to act in a manner they deem helpful for achieving the mission they are conducting.¹⁹⁵ These steps are necessary to take on a city's infrastructure as the center of gravity. Since the city is what is being fought for in urban warfare, destroying its infrastructure would not lead to victory.

ROE in Eastern Mosul

In eastern Mosul, air strikes were not to be executed if civilians were thought to be present in the target area. It should be borne in mind that aerial bombardment can be rendered ineffective by the urban operating environment. If a fighting force is trying to free a city from a terrorist group such as ISIL, then civilian casualties must be avoided to the largest extent possible. In fact, if a country is exercising the responsibility to protect (R2P), it must adhere to the Geneva Convention and the Laws of War.¹⁹⁶ This is reflected in the ROE that the Iraqi and U.S. forces were subjected to. The local Iraqi forces, in conjunction with U.S. support, were also able to follow this framework. As a young democracy, Iraq must strive to uphold the highest standards of international law. Similarly, the United States as a mature Western democracy cannot act in violation of

¹⁹⁵ Mohamed Mostafa, "U.S. Forces Erect 4 Military Bases in Mosul Preparing for New Combat Plans," *Iraq News, the Latest Iraq News by Iraqi News*, last modified January 17, 2017, accessed January 28, 2017, <http://www.iraqinews.com/iraq-war/u-s-forces-erect-4-military-bases-mosul-preparing-new-combat-plans/>; Kalin and Torbati, "U.S. to Send More Troops to Iraq ahead of Mosul Battle."

¹⁹⁶ For the Laws of War see, Stephen W. Preston, *Department of Defense Law of War Manual* (Washington, D.C.: Office of the General Counsel of the Department of Defense, 2015), accessed March 4, 2017, <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA620277>.

international law if it wishes to maintain legitimacy during and after a conflict.

Counterinsurgency doctrine takes these issues of legitimacy and governance into account.

In keeping with the tradition of counterinsurgency, the United States sent military advisers to help the Iraqi government take on ISIL in eastern Mosul.¹⁹⁷ The counterinsurgency campaigns in Iraq and Afghanistan have shown that it is very important to enable the host nation to solve its own problems.¹⁹⁸ However, counterinsurgency doctrine does not specify how to approach the issue of urban warfare. As one of the few nations that has gathered a fair amount of combat experience in urban areas in the past ten years, the United States had to be heavily involved in the battle for eastern Mosul. While such extensive involvement is not an ideal approach to counterinsurgency, it is an unavoidable action in the context of urban warfare.

¹⁹⁷ “Obama Sends More Special Forces to Syria in Fight against IS.”

¹⁹⁸ *FM 3-24*, 1-2.

The Fight for Eastern Mosul

Iraqi and U.S. forces faced a battle-hardened and relentless enemy in the streets, houses, and tunnels of Mosul. It took ground troops one hundred days to recapture eastern Mosul.¹⁹⁹

Streets were very difficult to retake because they expose warfighters to enemy fire. The use of shoulder-launched rocket systems (MANPADS) by ISIL fighters made the use of tanks and armored personnel vehicles (APVs) very dangerous. It was difficult for the U.S. and Iraqi forces to use vehicles while fighting in the streets. U.S. and Iraqi infantry fought in small and larger units. This enabled them to take on ISIL fighters in direct engagement while taking care not to kill innocent civilians. Thus, the fighting in the streets of Mosul clearly shows the importance of ground combat troops.

Houses proved difficult to retake because ISIL was using fighters and unmanned aerial vehicles (UAVs; commonly known as drones) to secure them.²⁰⁰ The combination of fighters and UAVs is difficult to counteract. ISIL used these UAVs to drop bombs on houses.²⁰¹ These bombs made it difficult for Iraqi ground troops and U.S. advisers to engage this terrorist organization's fighters. ISIL's use of these UAVs as delivery vehicles for explosives was a clear violation of the Laws of War because they did not distinguish between inhabited and uninhabited houses and compounds.²⁰²

¹⁹⁹ Maher and Hameed, "Iraqi Forces Claim Recapture of Eastern Mosul after 100 Days of Fighting."

²⁰⁰ OMelveny, "More ISIS Drones Brought Down in Fight for Mosul."

²⁰¹ Ibid.

²⁰² Ibid.

Even after retaking these houses and major areas of the city, the sewage system and an additional man-made tunnel system increased the level of difficulty for retaking Mosul.²⁰³ As could be seen in the case study on Operation Protective Edge, tunnel systems are notoriously dangerous for warfighters who are exposed to a place on the battlefield that they cannot navigate in the same way as streets or even houses. These locations enhanced ISIL's defensive positions.²⁰⁴ Overall, this factor complicates the retaking of cities on the tactical level as a whole. While no official decision was made at the time, evidence suggests that help from U.S. advisers helped turn the battle in the favor of the Iraqi Security Forces.

Using deeper embedding with their Iraqi partners, US Special Forces were able to aid in fighting ISIL in the tunnel and sewage systems of Mosul.²⁰⁵ This decision is an example of combat commanders and their troops adapting to the conditions of the battlefield while keeping within the bounds of the ROE. It also demonstrates how policymakers have a direct effect on the battlefield through shaping the policy that informs the formulation of the ROE.

The complexity of this fight highlights the importance of ground combat troops. While air power could provide support at critical points in this battle, the majority of the

²⁰³ William Booth and Aaso Ameen Shwan, "Islamic State Tunnels below Mosul Are a Hidden and Deadly Danger," *Washington Post*, November 5, 2016, accessed February 21, 2017, https://www.washingtonpost.com/world/middle_east/islamic-state-tunnels-below-mosul-are-a-hidden-and-deadly-danger/2016/11/05/5199afcc-a2c7-11e6-8864-6f892cad0865_story.html.

²⁰⁴ Malsin and Amir, "Qurans and Solar Cells — Inside the ISIS Tunnels Around Mosul."

²⁰⁵ Dan Lamothe, "U.S. Troops in Iraq Move Closer to the Front Lines in Fight for Mosul," *Washington Post*, last modified February 20, 2017, accessed February 21, 2017, https://www.washingtonpost.com/world/national-security/us-advisers-move-closer-to-the-front-lines-in-fight-for-mosul/2017/02/20/056fd3aa-f787-11e6-be05-1a3817ac21a5_story.html.

fighting was being done by infantry units. Furthermore, this urban battlefield demonstrates how the conditions of the operating environment affect the duration of a mission.

Having examined the battlefield conditions, we now turn to examining the factors that led to success in the battle for eastern Mosul.

Chapter 4 Conclusion

Eastern Mosul was retaken after 100 days of very physically taxing and brutal close quarters battles (CQB) throughout the city.²⁰⁶

The fight for the eastern part of Mosul shows several important lessons related to this thesis. Clear policy goals and a well-formulated strategy allow commanders and warfighters on the ground to use the tactical means at their disposal to achieve strategic objectives and policy goals.

The fight for eastern Mosul was only one part of the counter-ISIL strategy. Albeit being waged successfully, this fight highlights the return of primitive modes of fighting to the modern battlefield. The urban combat conducted by the ISF and embedded US Special Forces only demonstrates that gruesome close quarters fighting tactics and techniques can decide the outcome of battles in urban areas. Whoever is better at CQB is more likely to win an urban warfare engagement. While the 21st century is supposed to bring about many miraculous technological developments, urban warfare only throws us back to modes of fighting that are as primitive as they were back in Sun Tzu's time. A democracy can be successful only if it has the political will to engage in the brutal fighting that ensues during urban warfare.

²⁰⁶ Maher and Hameed, "Iraqi Forces Claim Recapture of Eastern Mosul after 100 Days of Fighting."

Chapter 5: Conclusion and Recommendations

a. Conclusion

Urbanization calls for a reexamination of warfare. Precisely because urbanization influences social interactions, it transforms the political context and the urban operating environment. Hence, urban combat should be subjected to more rigorous study than it has over the past three decades. The classical texts in military history have been revisited in this thesis to place the importance of urban combat into a factual context: over the past thousand years, we did not fight in cities.

Urban combat has had a special, confined place in warfighting and military studies. The more recent fights for cities such as Baghdad, Fallujah, Ramadi, Basra and the terror attacks in Orlando/ Florida, Paris/ France, Brussels/ Belgium, and the IDF's past operations in Gaza are evidence for the growing importance of understanding the strategic implications of tactical level engagements (CQB) in urban areas. CQB tactics have been the driving force for victories on urban battlefields. With the rise in urbanization, cities around the world are going to be the drivers of economic growth and will contain the potential security hazards. While the areas of conflict resolution, social projects, and de-escalation measures have received a fair amount of academic attention from researchers, there has not been a discussion on the necessity of which tactics to employ when urban combat engagements are fought.

Policy goals require ways of warfare. For this, one needs to understand the different ways of warfare and the tactics associated with them. As could be seen in chapter 1, Sun Tzu and Clausewitz are the two most prominent thinkers on these topics. A strategy is drawn up to guide decision-makers in achieving goals set out in a policy. Strategic objectives are how a policy is administered; operations are how to go about achieving those goals; and tactics are the tools that can be used to conduct these operations. Dominating an enemy in engagements is central to defeating non-state actors and countering the spread of these groups' ideologies.

Especially in urban warfare, non-state actors use asymmetric tactics to fight government and stabilization forces. While technology is a dominant factor in combat, force employment is more important.²⁰⁷ As technological advances in Western governments have led to the Revolution in Military Affairs (RMA), Network Centric Warfare (NCW), the use of Effects Based Operations (EBO), and the development of Air Land Battle Doctrine (ALB), potential adversaries have developed the Other Revolution in Military Affairs (O – RMA).²⁰⁸ Apart from O – RMA, all the other terms above rely on technological dominance. As could be seen throughout this thesis, however, technological superiority does not necessarily help in urban warfare. Yet, technology is one factor affecting the conduct of modern wars. To successfully engage in urban combat, tactical abilities need to be emphasized. Policymakers must understand this.

²⁰⁷ For an excellent discussion of force employment as the dominant factor for achieving victory in military engagements, see Stephen Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle*, 1st Edition. (Princeton, N.J.; Oxford: Princeton University Press, 2006).

²⁰⁸ Brigadier General Itai Brun, “‘While You’re Busy Making Other Plans’ – The ‘Other RMA,’” *Journal of Strategic Studies* 33, no. 4 (August 1, 2010): 536-537.

To conduct strategy successfully, operations plans must be drawn up and implemented. Strategy should be considered a framework for the actions that will be undertaken to achieve the goals defined by policy. Rather than adjusting one's strategy, one should adapt the means, operational concepts, and the tactics that can be employed when conducting operations to achieve strategic goals. The ability to conduct urban combat operations contributes to achieving strategic objectives and policy goals successfully.

b. Recommendations – Topics to focus on in the Future

Tactics are important for reaching policy goals. As the case studies in this thesis demonstrate, the tactical nature of complex urban operations environments requires more understanding of the diverse tactics necessary for every warfighter to operate successfully in an urban environment. The tactical toolkit is essential and cannot be substituted through strategizing. Furthermore, being politically opposed to the use of force will not solve the problems surrounding urban conflict and combat. Understanding how to balance the use of CQB tactics with COIN (counterinsurgency), OOTW (operations other than war), and humanitarian assistance inspired tactics is what is needed in the future.

Every warfighter is important in an operating environment as complex as the urban and peri-urban space. We must focus on the skills of the single warfighter. The tactics used by warfighters as single actors and in teams are what drives the innovation of technology, equipment, and operational concepts and plans. These factors contribute to successfully attaining policy goals.

c. Recommendations for Future Actions

The death of children, and the destruction of private property and buildings of importance to the communities in which the operations are conducted, will only negatively affect the outcome of military operations. Therefore, high moral standards should be integrated into the training of all military personnel. Regardless of whether officers have direct orders or have to stick to operational procedures when conducting urban operations, one must at times act as one deems fit and also in accordance with the outlines of manuals.

It would help to inform policymakers about the difficulties concerning urban operations. Explaining the conceptual context of urban combat to them would improve their understanding of the urban operating environment. Thus, the conceptual difficulties of formulating a strategy that requires a diverse range of tactics can be approached with better-informed decision-makers.

In regard to the application of urban warfare tactics, we must accept that there are no easy tactical answers to this strategic issue. Urban combat is messy and requires political and military leaders to accept that while Standard Operating Procedures (SOPs) and Tactics, Techniques, and Procedures (TTPs) are important on the urban battlefield, tactical innovation cannot be forgotten. Urban warfare, unlike maneuver warfare in deep operating environments, is subject to an abnormal amount of chaos and uncertainty. In relation to future urban combat, the most important SOP will be tactical innovation.

With an increase in the number of megacities around the world, these will be the battlefields of the future. With the willingness to commit resources, operational planning

for combat in urban environments can become part of the executable contingency operations that Armed Forces can conduct when necessary.

The ways to fight in an environment as complex as the urban area need to be studied, so that the means to engage in urban warfare are better understood. As it stands, urban operations are without doubt very difficult to plan and execute. By studying how to improve the warfighter's combat capabilities, the strategic engagement options available to national security policymakers should be increased. A well-trained military able of fighting in urban areas and delivering victory is necessary as the security risks in cities around the world accumulate.

Furthermore, the future of international terrorism will be heavily influenced by the increased rate of urbanization. Kilcullen explains that the way in which terrorism is going to be conducted will be heavily linked to the internet and the global information infrastructure.²⁰⁹ As a result, we must look back at how terrorism around the world developed, and which measures have been used in the past to counter terrorist organizations. From countering violent extremism, over using Special Forces units to conduct search & seizure operations, to freezing financial assets and confiscating tangible assets, the tactics used by counter-terrorists must be embedded in a wide array of operations. The history of international terrorism and counterterrorism methods clearly shows us that there cannot be a "one size fits all" approach to respond to or preempt terrorist activities.

²⁰⁹ Kilcullen, *Out of the Mountains*, 35-40.

The military must find a way to bring these ideas to fruition and decrease the amount of difficulties the soldier faced in the two case studies discussed in this thesis. Having clear strategic goals is absolutely necessary, but the urban operating environment is so complex that tactics will remain the dominant factor. Only a wide ranging tactical toolkit can be employed successfully in urban combat to fight and win battles and campaigns. This will ultimately contribute to the success of a policy.

Bibliography

- AFP. "Comptroller Irritated over Leak of His Damning Gaza War Report." *The Times of Israel*. Accessed February 21, 2017. <http://www.timesofisrael.com/comptroller-irate-over-leak-of-damning-gaza-war-report/>.
- Ahronheim, Anna. "Three Palestinian's Killed in Gaza Tunnel 'Flooded by Egypt.'" *The Jerusalem Post* | *JPost.com*. Last modified December 4, 2016. Accessed February 2, 2017. <http://www.jpost.com/Arab-Israeli-Conflict/Three-bodies-of-Palestinians-missing-since-tunnel-collapse-recovered-474386>.
- Allon, Gideon. "Report on Cabinet's Actions during 2014 Gaza Fighting to Be Released." Last modified January 24, 2017. Accessed February 21, 2017. http://www.israelhayom.com/site/newsletter_article.php?id=39807.
- Amidror, Yaakov. "The Wisdom of Hindsight." *Begin-Sadat Center for Strategic Studies*. Last modified January 31, 2017. Accessed January 31, 2017. <https://besacenter.org/perspectives-papers/wisdom-hindsight/>.
- . "Trade Insights, Not Barbs." *Begin-Sadat Center for Strategic Studies*. Last modified March 8, 2017. Accessed March 21, 2017. <https://besacenter.org/perspectives-papers/trade-insights-not-barbs/>.
- Antal, John. *City Fights: Selected Histories of Urban Combat from World War II to Vietnam*. First Edition edition. New York: Presidio Press, 2003.
- Applegate, Rex. *Kill Or Get Killed*. New Revised and Enlarged edition. Boulder, Colo.: Paladin Press, 1976.
- Arraf, Jane. "Iraqi Troops Edge Deeper Into Mosul — With Caution." *NPR.org*. Last modified January 15, 2017. Accessed January 30, 2017. <http://www.npr.org/sections/parallels/2017/01/15/509643740/iraqi-troops-edge-deeper-into-mosul-with-caution>.
- Assyrian International News Agency. "The Epic Of Gilgamesh." Accessed April 20, 2017. <http://www.aina.org/books/eog/eog.htm>.
- Bauer, Thomas, and Ralph Rotte. "Prospect Theory Goes to War: Loss-Aversion and the Duration of Military Combat" (1997). Accessed April 17, 2017. <https://epub.ub.uni-muenchen.de/1489/>.

- Bering, Henrik. "Two Battles at Once: Democracies and Urban Warfare." *Policy Review*, no. 157 (2009): 47–60.
- Betts, Richard K. "Is Strategy an Illusion?" *International Security* 25, no. 2 (October 1, 2000): 5–50.
- Biddle, Stephen. *Military Power: Explaining Victory and Defeat in Modern Battle*. 1st Edition. Princeton, N.J.; Oxford: Princeton University Press, 2006.
- Booth, William, and Aaso Ameen Shwan. "Islamic State Tunnels below Mosul Are a Hidden and Deadly Danger." *Washington Post*, November 5, 2016. Accessed February 21, 2017. https://www.washingtonpost.com/world/middle_east/islamic-state-tunnels-below-mosul-are-a-hidden-and-deadly-danger/2016/11/05/5199afcc-a2c7-11e6-8864-6f892cad0865_story.html.
- Brun, Brigadier General Itai. "'While You're Busy Making Other Plans' – The 'Other RMA.'" *Journal of Strategic Studies* 33, no. 4 (August 1, 2010): 535–565.
- Brzezinski, Zbigniew. *Strategic Vision: America and the Crisis of Global Power*. 46732nd edition. New York, NY: Basic Books, 2012.
- Catagnus, Jr., Earl J., Brad Z. Edison, James D. Keeling, and David A. Moon. "Infantry Squad Tactics: Some of the Lessons Learned during MOUT in the Battle for Fallujah." *Marine Corps Gazette* 89, no. 9 (September 2005). <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA489647>.
- Condell, Bruce, and David T. Zabecki, eds. *On the German Art of War: Truppenführung: German Army Manual for Unit Command in World War II*. Mechanicsburg, PA: Stackpole Books, 2008.
- Corps, US Marine. "Military Operations on Urbanized Terrain (MOUT)." *Marine Corps Warfighting Publication MCWP* (1998): 3–35.
- Department of Defense. "Operation Inherent Resolve." *Operation Inherent Resolve*. Accessed February 17, 2017. <http://www.inherentresolve.mil/About-Us/>.
- Donovan, Shaun, and Tony Scott. "Cybersecurity Strategy and Implementation Plan (CSIP) for the Federal Civilian Government." Executive Office of the President: Office of Management and Budget, 2001. Accessed October 30, 2015. <https://obamawhitehouse.archives.gov/sites/default/files/omb/memoranda/2016/m-16-04.pdf>.
- Dupuy, Trevor N. *Understanding War: History and Theory of Combat*. New York: Paragon House, 1987.

- Echevarria II, Antulio J. *After Clausewitz: German Military Thinkers Before the Great War*. Lawrence: University Press of Kansas, 2001.
- Edwards, Sean J. A. *Mars Unmasked: The Changing Face of Urban Operations*. Santa Monica, CA: RAND Corporation, 2000.
- February, 10, 2012 · Industry Profiles, and V4N1. “MARSOC, Part 1: Devil Dogs of SOCOM.” *Small Arms Defense Journal*, n.d. Accessed February 14, 2017. <http://www.sadefensejournal.com/wp/?p=1102>.
- Galula, David. *Counter-Insurgency Warfare: Theory and Practice*. Edited by Robert R. Bowie. 1st edition. Frederick A. Praeger, 1964.
- Goldwater, Barry, and William F. Nichols. “Goldwater–Nichols Department of Defense Reorganization Act,” 1986. Accessed February 22, 2017. http://history.defense.gov/Portals/70/Documents/dod_reforms/Goldwater-NicholsDoDRcordAct1986.pdf.
- Gorman, P.F. *Aachen 1944: Implications for the Future*. Alexandria, VA: Institute for Defense Analyses, n.d. Accessed April 26, 2017. http://usacac.army.mil/cac2/csi/docs/Gorman/06_Retired/03_Retired_2000_11/01_00_Aachen1944_Implications_28Jan.pdf.
- Gray, Colin S. *Modern Strategy*. 1 edition. New York: Oxford University Press, 1999.
- Guevara, Che. *Guerrilla Warfare*. Bison Books Printing, 1998.
- Hacohen, Gershon. “War Is War.” *Begin-Sadat Center for Strategic Studies*. Last modified February 2, 2017. Accessed February 2, 2017. <https://besacenter.org/perspectives-papers/war-is-war/>.
- . “War: The School of Life.” *Begin-Sadat Center for Strategic Studies*. Last modified March 7, 2017. Accessed March 21, 2017. <https://besacenter.org/perspectives-papers/war-school-life/>.
- Hall, Wayne Michael, and Gary Citrenbaum. *Intelligence Analysis: How to Think in Complex Environments*. Santa Barbara, Calif: Praeger, 2009.
- Hecht, Eado, and Eitan Shamir. “The Case for Israeli Ground Forces.” *Survival* 58, no. 5 (September 2, 2016): 123–148.
- High Level Military Group. *An Assessment of the 2014 Gaza Conflict*, October 2015. Accessed April 15, 2017. <http://www.high-level-military-group.org/pdf/hlmg-assessment-2014-gaza-conflict.pdf>.
- Hines, Nico. “Senior UK Defense Advisor: Obama Is Clueless About ‘What He Wants To Do In The World.’” *The Daily Beast*. Last modified January 15, 2014.

- Accessed March 19, 2017.
<http://www.thedailybeast.com/articles/2014/01/15/senior-uk-defense-advisor-obama-is-clueless-about-what-he-wants-to-do-in-the-world.html>.
- Johnson, David E., M. Wade Markel, and Brian Shannon. *The 2008 Battle of Sadr City*. Occasional paper (Rand Corporation) OP-335-A. Santa Monica CA: RAND, 2011.
- Johnston, Vanessa. *Video Shows Israeli “knock on the Roof” bombing Tactic In...*, n.d. Accessed May 18, 2017. <http://www.reuters.com/video/2014/07/12/video-shows-israeli-knock-on-the-roof-bo?videoId=322266392&videoChannel=1>.
- Joint Chiefs of Staff. *Joint Publication 5-0: Joint Operation Planning*. Washington, D.C.: Joint Chiefs of Staff, 2011. Accessed March 25, 2017.
<http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA562213>.
- . *JP 3-06 Joint Urban Operations*. Washington, D.C.: Joint Chiefs of Staff, 2013. Accessed February 8, 2017. http://www.dtic.mil/doctrine/new_pubs/jp3_06.pdf.
- Kalin, Stephen, and Yeganeh Torbati. “U.S. to Send More Troops to Iraq ahead of Mosul Battle.” *Reuters*, September 29, 2016. Accessed February 21, 2017.
<http://www.reuters.com/article/us-mideast-crisis-iraq-usa-idUSKCN11Y1G8>.
- Kaplan, Fred. *The Insurgents: David Petraeus and the Plot to Change the American Way of War*. Reprint edition. New York: Simon & Schuster, 2014.
- Keiler, Jonathan F. “Who Won the Battle of Fallujah?” *Military.com*. Last modified January 2005. Accessed March 20, 2017.
http://www.military.com/NewContent/0,13190,NI_0105_Fallujah-P1,00.html.
- Kilcullen, David. *Out of the Mountains: The Coming Age of the Urban Guerrilla*. Oxford University Press, 2013.
- Kissinger, Henry. *World Order*. UK: Allen Lane, 2014.
- Krieger, Martin H. *Urban Tomographies*. Philadelphia: University of Pennsylvania Press, 2011.
- Krüger, Dieter, ed. *Schlachtfeld Fulda Gap: Strategien und Operationspläne der Bündnisse im Kalten Krieg*. 2nd ed. Schriftenreihe Point Alpha 2. Fulda: Parzeller, 2015.
- Krulak, Charles. “The Strategic Corporal: Leadership in the Three Block War.” *Air University*. Last modified 1999. Accessed March 6, 2017.
http://www.au.af.mil/au/awc/awcgate/usmc/strategic_corporal.htm.

- Lamothe, Dan. "U.S. Troops in Iraq Move Closer to the Front Lines in Fight for Mosul." *Washington Post*. Last modified February 20, 2017. Accessed February 21, 2017. https://www.washingtonpost.com/world/national-security/us-advisers-move-closer-to-the-front-lines-in-fight-for-mosul/2017/02/20/056fd3aa-f787-11e6-be05-1a3817ac21a5_story.html.
- Laqueur, Walter. *Guerrilla Warfare: A Historical and Critical Study*. New Brunswick, N.J: Transaction Publishers, 1997.
- Luttwak, Edward N. *Strategy: The Logic of War and Peace*. Revised edition. Cambridge, Mass: Belknap Press, 1987.
- . "The Operational Level of War." *International Security* 5, no. 3 (1980): 61.
- Maher, Chmaytelli, and Saif Hameed. "Iraqi Forces Claim Recapture of Eastern Mosul after 100 Days of Fighting." *Reuters*. Baghdad, January 23, 2017. Accessed January 30, 2017. <http://www.reuters.com/article/us-mideast-crisis-iraq-mosul-idUSKBN157231>.
- Mallin, Jay, ed. *Strategy for Conquest: Communist Documents On Guerrilla Warfare*. Coral Gables, Fla: Univ of Miami Pr, 1970.
- Malsin, Jared. "Inside the Next Big Battle Against ISIS." *TIME.com*, n.d. Accessed February 21, 2017. <http://time.com/isis-mosul/>.
- Malsin, Jared, and Sheikh Amir. "Qurans and Solar Cells — Inside the ISIS Tunnels Around Mosul." *Time*. Last modified October 21, 2016. Accessed February 21, 2017. <http://time.com/4541647/isis-defensive-tunnels-mosul-iraq/>.
- Mansoor, Peter R., and David Petraeus. *Surge: My Journey with General David Petraeus and the Remaking of the Iraq War*. Reprint edition. New Haven Connecticut: Yale University Press, 2014.
- Marshall, S. L. A. *Notes on Urban Warfare*. DTIC Document, 1973. Accessed February 16, 2017. <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=AD0758841>.
- Moss, Robert. *Urban Guerrilla Warfare;: With an Appendix: Minimanual of the Urban Guerrilla*. International Institute for Strategic Studies, 1971.
- Mostafa, Mohamed. "U.S. Forces Erect 4 Military Bases in Mosul Preparing for New Combat Plans." *Iraq News, the Latest Iraq News by Iraqi News*. Last modified January 17, 2017. Accessed January 28, 2017. <http://www.iraqnews.com/iraq-war/u-s-forces-erect-4-military-bases-mosul-preparing-new-combat-plans/>.

- Nagl, John A., and Peter J. Schoomaker. *Learning to Eat Soup with a Knife: Counterinsurgency Lessons from Malaya and Vietnam*. 1st edition. Chicago: The University of Chicago Press, 2005.
- NATIONAL COMMISSION ON THE FUTURE OF THE ARMY. *NATIONAL COMMISSION ON THE FUTURE OF THE ARMY. REPORT TO THE PRESIDENT AND THE CONGRESS OF THE UNITED STATES*. Washington, D.C, January 28, 2016. Accessed April 26, 2017. http://www.ncfa.ncr.gov/sites/default/files/NCFA_Full%20Final%20Report_0.pdf
- Norton, Richard J. "Feral Cities." *Naval War College Review* 56, no. 4 (2003): 97.
- OMelveny, Sean. "More ISIS Drones Brought Down in Fight for Mosul." Text. *Military.com*. Accessed January 28, 2017. <http://www.military.com/daily-news/2017/01/11/more-isis-drones-brought-down-fight-mosul.html>.
- Perry, Mark. "Get Ready for Obama's 'October Surprise' in Iraq." *POLITICO Magazine*. Accessed February 21, 2017. <http://politi.co/2aIwD4e>.
- Peters, Ralph. "Our Soldiers, Their Cities." *PARAMETERS, US Army War College Quarterly*, no. Spring 1996 (1996): 43–50.
- Powers, Rod. "Here's How the U.S. Army Is Organized, from Squads to Corps." *The Balance*. Accessed April 20, 2017. <https://www.thebalance.com/u-s-army-military-organization-from-squad-to-corps-4053660>.
- Preston, Stephen W. *Department of Defense Law of War Manual*. Washington, D.C.: Office of the General Counsel of the Department of Defense, 2015. Accessed March 4, 2017. <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA620277>.
- Reilly, Jeffrey M. *Operational Design: Distilling Clarity from Complexity for Decisive Action*. Maxwell Air Force Base, AL: Air University Press, 2012.
- Sonnenberger, Martin. "Initiative Within the Philosophy of Auftragstaktik: Determining Factors of the Understanding of Initiative in the German Army, 1806-1955." US Army Command and General Staff College, 2015. Accessed February 25, 2017. http://usacac.army.mil/sites/default/files/documents/cace/CSI/CSIPubs/Sonnenberger_Book.pdf.
- State of Israel. "מבצע (Operation Protective Edge Report)." Last modified February 28, 2017. Accessed April 18, 2017. <http://www.mevaker.gov.il/he/Reports/Pages/568.aspx>.

- Stone, David J., and Richard Holmes. *Fighting for the Fatherland: The Story of the German Soldier from 1648 to the Present Day*. 2nd edition. Washington, D.C: Potomac Books Inc., 2006.
- Strachan, Hew. *European Armies and the Conduct of War*. Revised ed. edition. London; New York: Routledge, 1988.
- . “Strategy and Contingency.” *International Affairs* 87, no. 6 (November 1, 2011): 1281–1296.
- . “The Lost Meaning of Strategy.” *Survival* 47, no. 3 (October 1, 2005): 33–54.
- Strachan, Sir Hew. *The Direction of War: Contemporary Strategy in Historical Perspective*. Cambridge, United Kingdom ; New York: Cambridge University Press, 2014.
- Sumner, Maj. Mark. “USMC MOUT DOCTRINE” presented at the MOUT Doctrine Panel, n.d. Accessed April 26, 2017.
https://www.rand.org/content/dam/rand/pubs/conf_proceedings/CF148/CF148.apm.pdf.
- Sun-Tzu, and Karl Von Clausewitz. *The Book of War: Sun-Tzu’s “The Art of War” & Karl Von Clausewitz’s “On War.”* First Edition. New York: Modern Library, 2000.
- Tilman, Remme. “World Wars: The Battle for Berlin in World War Two.” *BBC - History*. Last modified March 10, 2011. Accessed April 26, 2017.
http://www.bbc.co.uk/history/worldwars/wwtwo/berlin_01.shtml.
- Totten, Michael J. “Anbar Awakens Part I: The Battle of Ramadi.” *Michael J. Totten’s Middle East Journal*. Last modified September 10, 2007. Accessed March 6, 2017. <http://www.michaeltotten.com/archives/001514.html>.
- US Army. *Army Operating Concept 2014 (TP525-3-1): Win in a Complex World 2020-2040*. Fort Eustis, VA: TRADOC, 2014.
<http://www.tradoc.army.mil/tpubs/pams/tp525-3-1.pdf>.
- . “Official Home of Modern Army Combatives.” *US Army Maneuver Center of Excellence*. Last modified September 26, 2016. Accessed February 15, 2017.
<http://www.benning.army.mil/Armor/316thCav/129/Combatives/>.
- . “Primer on Urban Operations.” *Army University Press*. Last modified March 28, 2017. Accessed March 29, 2017. <http://armypress.dodlive.mil/primer-on-urban-operations/>.
- U.S. Department of Defense. “THE DEPARTMENT OF DEFENSE CYBER STRATEGY.” U.S. Department of Defense, 2015. Accessed April 25, 2017.

https://www.defense.gov/Portals/1/features/2015/0415_cyber-strategy/Final_2015_DoD_CYBER_STRATEGY_for_web.pdf.

U.S. Department of Defense, and Office of the Director of National Intelligence. "United States National Security Space Strategy (Unclassified Summary of January 2011)." U.S. Department of Defense, 2011. Accessed May 20, 2017. http://heinonline.org/hol-cgi-bin/get_pdf.cgi?handle=hein.journals/zlw60§ion=27.

U.S. Department of the Army. *ADP 3-0 Unified Land Operations*. Washington, D.C.: Department of the Army, 2011. Accessed February 17, 2017. https://www.army.mil/e2/rv5_downloads/info/references/ADP_3-0_ULO_Oct_2011_APD.pdf.

———. *FM 3-24: Insurgencies and Countering Insurgencies*. U.S. Department of the Army, 2014. Accessed January 25, 2017. <https://fas.org/irp/doddir/army/fm3-24.pdf>.

USMC. *Close Combat*. 1st edition. Paladin Press, 2000.

Van Riper, Paul K. "A Concept for Future Military Operations on Urbanized Terrain." *Marine Corps Gazette* 81 (1997). Accessed February 19, 2017. <https://marinecorpconceptsandprograms.com/sites/default/files/concepts/pdf-uploads/Concept%20For%20Future%20MOUT.pdf>.

Walzer, Michael. *Just and Unjust Wars: A Moral Argument with Historical Illustrations*. 5 edition. New York: Basic Books, 2015.

Watkins, Nicole, and Alena James. "Digging Into Israel: The Sophisticated Tunneling Network of Hamas." *Journal of Strategic Security* 9, no. 1 (April 1, 2016). <http://scholarcommons.usf.edu/jss/vol9/iss1/8>.

White, H. J. *Commando 21: An Increase in Combat Power and Flexibility*. DTIC Document, 2002. Accessed February 23, 2017. <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA509029>.

White, Jeffrey. "The Combat Performance of Hamas in the Gaza War of 2014 | Combating Terrorism Center at West Point," September 29, 2014. Accessed February 21, 2017. <https://www.ctc.usma.edu/posts/the-combat-performance-of-hamas-in-the-gaza-war-of-2014>.

Wright, James. "What We Learned From the Korean War." *The Atlantic*, July 23, 2013. Accessed April 26, 2017. <https://www.theatlantic.com/international/archive/2013/07/what-we-learned-from-the-korean-war/278016/>.

- “DONALD H. RUMSFELD > U.S. DEPARTMENT OF DEFENSE > Biography View.”
 Accessed February 14, 2017.
<https://www.defense.gov/About/Biographies/Biography-View/Article/602800>.
- FM 2-22.3 Human Intelligence Collector Operations*. Department of the Army, 2006.
 Accessed February 11, 2017.
<https://www.state.gov/documents/organization/150085.pdf>.
- “Foreign Military Studies Office Publications - Grozny 2000: Urban Combat Lessons Learned.” Accessed April 20, 2017.
<http://fmso.leavenworth.army.mil/documents/grozny2000/grozny2000.htm>.
- “IDF Gears up for War Crimes Accusations, Plans Internal Review of Gaza Operation.”
The Jerusalem Post | *JPost.com*. Accessed February 21, 2017.
<http://www.jpost.com/Operation-Protective-Edge/Report-IDF-gears-up-for-war-crimes-accusations-plans-internal-review-of-Gaza-op-370312>.
- “INSS Conference 2017 - Summary.” Accessed April 21, 2017.
<http://www.inss.org.il/index.aspx?id=5260#Bennett>.
- “MWI Podcast: Tunnel Warfare and Robots with IDF Brig. Gen. Nechemya Sokal.”
Modern War Institute, February 15, 2017. Accessed February 16, 2017.
<http://mwi.usma.edu/mwi-podcast-tunnel-warfare-robots-idf-brig-gen-nechemya-sokal/>.
- “Obama Sends More Special Forces to Syria in Fight against IS.” *Reuters*, April 27, 2016. Accessed February 21, 2017. <http://www.reuters.com/article/us-mideast-crisis-usa-syria-idUSKCN0XL0ZE>.
- “President Obama: ‘We Will Degrade and Ultimately Destroy ISIL.’” *The White House*.
 Last modified September 10, 2014. Accessed February 21, 2017.
<https://obamawhitehouse.archives.gov/blog/2014/09/10/president-obama-we-will-degrade-and-ultimately-destroy-isil>.
- “Short War in a Perpetual Conflict: Implications of Israel’s 2014 Operation Protective Edge for the Australian Army,” n.d. Accessed January 20, 2017.
https://www.army.gov.au/sites/g/files/net1846/f/arp9_glen_short_war_in_a_perpetual_conflict.pdf.
- The 2014 Gaza Conflict (7 July – 26 August 2014): Factual and Legal Aspects*. Tel Aviv, Israel: State of Israel, May 2015.
<http://mfa.gov.il/ProtectiveEdge/Documents/2014GazaConflictFullReport.pdf>.
- “Why a Strategy Is Not a Plan.” *The Economist*. Last modified October 2, 2013.
 Accessed May 15, 2016. <http://www.economist.com/news/books-and-arts/21588834-strategies-too-often-fail-because-more-expected-they-can-deliver-why>.