

Siege Operations for 21st Century Warfare

A Monograph

by

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Abstract

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This monograph examines historical siege operations to identify alternative operational approaches to future urban operations by the US Army. The emerging operational environment will gradually increase the risks of assaulting urban areas. In the two case studies examined, Paris 1870-1871 and Beirut 1982, the attacking armies overcame similar risks by besieging the urban area and defeating the enemy primarily by isolation. The case study analysis suggests that, at the operational level, a siege enables an attacker to hold the initiative, to reduce risks, and to avoid fighting the battles which provide advantages to the defender. The two sieges studied also provide models on how to link tactical actions together to defeat the enemy by isolation and force their capitulation. US Army doctrine should re-introduce siege operations as one more option to defeat adversaries within urban terrain.

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Abbreviations

A2AD	Anti-Access and Area Denial
ADP	Army Doctrine Publication
ATP	Army Techniques Publication
FM	Field Manual
JP	Joint Publication
MOUT	Military Operations in Urban Terrain
OE	Operational Environment
PLO	Palestinian Liberation Organization
RPG	Rocket-Propelled Grenade
SAM	Surface-to-Air Missile
UN	United Nations

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Introduction

The US military shares a storied history of battles amongst cities, from Boston in 1775 to Mosul in 2017. The images of war are taken in cities, with burning buildings and tight corridors forming the backdrop of combat. For most of military history, siege operations formed the primary method for capturing cities. Yet, the US military does not pride itself on siege capabilities. Instead, the US history of urban operations centers on intense street-to-street fighting. Sieges are likely to spark ideas of catapults, earthworks, and war crimes. US Army doctrine captures this disconnect. Army Techniques Publication (ATP) 3-06, *Urban Operations*, defines urban operations as “those operations across the range of military operations planned and conducted on, or against, objectives on a topographical complex and its adjacent natural terrain, where man-made construction or the density of population are the dominant features.”¹ Conversely, siege operations are not defined.

A siege operation can vary widely in appearance, but some key aspects are shared. A siege operation involves the investment, or surrounding, of a fortress or city to isolate the position and deny the initiative from the defenders. Tactics chosen by the besieger determine whether bombardment, assault, or other means will defeat the defenders. These tactics are then arranged in time, space, and purpose to achieve strategic objectives. Thus, the heart of a siege lies at the operational level of war. The besieger considers how to isolate the city, when to compel surrender, when and how to repulse relief forces, how much time the army has, and where to assault. Linking the many possibilities together is a complex task, and the balancing of political and military realities becomes an art. Moreover, there are many times a siege operation is not appropriate. Perhaps surprise allows for a quick assault, a coup de main could seize the city, or limited strikes and raids will achieve the objectives. A siege is just one method of many.

¹ US Department of the Army, Army Techniques Publication (ATP) 3-06, *Urban Operations* (Washington, DC: Government Publishing Office, 2017), 1-1.

This monograph examines the emerging operational environment (OE) and potential adversaries of the United States to consider whether siege operations are a viable method for future urban operations. US Army doctrine describes urban operations as risky, but also omits siege operations as a method. Instead, the focus is on maneuver and assault. To achieve success, future US Army commanders must consider sieges as a potential operational approach. In the emerging OE, a siege operation will be less risky and more effective than a maneuver operation into urban terrain. US Army doctrine would benefit from including siege techniques as one method available to commanders. This paper uses historical siege operations to provide lessons on how an operational planner can creatively design a suitable, feasible, and acceptable plan that uses isolation, instead of destruction, as the primary defeat mechanism.

The monograph is organized into five sections: introduction, siege history and doctrine, case study of Paris 1870-1871, case study of Beirut 1982, and conclusions. Siege history and doctrine provides historical trends and concepts of sieges, analyzes modern sieges, and examines current US doctrine for urban operations. Next, the two case studies describe how each siege operation produced a less risky and more viable campaign for the OE of the time. Finally, the conclusion discusses strategic considerations, identifies operational approaches relevant to the future OE, and provides implications for US doctrine.

The research used a qualitative methodology to understand the factors, conditions, and methods that historically increased or decreased risk in urban operations, and if they led to success or failure. First, a review of all joint and US Army doctrine relevant to urban operations identified current operational approaches. Next, a general study of urban warfare and siege operations history, using secondary sources, defined the context and paradigm shifts relevant to the following case studies and modern doctrine. The two case studies used secondary sources for the strategic setting, campaign analysis, and lessons learned. Primary sources, comprised of biographies, media accounts, and campaign reports, provided detail to decision-making and considerations of leadership. The two case studies significantly differed in time period, providing

valuable variety to approaches and environments. The research analyzed both case studies at the operational level of war, and how besieging forces controlled the seven risks to urban operations outlined in ATP 3-06.²

The paper contains several limitations to keep the research focused amongst a rich history of siege warfare. First, research examined only sieges of towns or cities – instead of fortresses and field fortifications – to limit the scope and provide additional relevancy. Second, research centered around the operational level of war, as much has already been written on the tactics of urban operations. The paper leaves to the planner whether tanks would be better suited to invest the city or target relief forces. Finally, conclusions focused on the implications for US Army doctrine. Multinational doctrine was not examined because variations in national political and strategic considerations heavily impact the conduct of urban operations. US joint doctrine was examined to provide further context, but the monograph was tailored towards relevant updates for US Army doctrine only.

Siege History and Doctrine

Sieges of the Past and Present

Throughout most of history, the siege dominated as the method to capture cities. Over time, the besieger could reduce the defender's capability to resist or increase his own capability to assault. Cities would become fortresses themselves by encircling them in walls or mutually defensible fortresses. The city became easily defensible, and since most armies lacked sufficient mobility to achieve surprise, armies were unable to assault immediately.³ With technological improvements, such as the cannon and growing professionalization of armies, siege warfare

² US Army, ATP 3-06, 2-2. See Chapter Two for a description and analysis of these risks. The seven risks of urban operations are: inadequate force strength, information operations, increased military casualties, unavoidable collateral damage, lack of time and loss of momentum, increased vulnerabilities, and destabilizing escalation.

³ William G. Robertson, ed., *Block by Block: The Challenges of Urban Operations* (Fort Leavenworth, KS: US Army Command and General Staff College Press, 2003), 3.

became the end in itself through the 17th and 18th centuries.⁴ Men such as Sebastien LePrestre de Vauban, perfected the science of the siege and established the siege as synonymous with urban operations.

Vauban defined axioms, terms, and techniques useful for the modern study of sieges. Writing in regards to both field fortifications and fortified cities, Vauban set the order of events as the investment and isolation of the city, advancement by trenchworks to emplace guns, the concentration of materiel and men, defense against sorties, and the breach of defenses.⁵ During the initial isolation of the city, Vauban stressed speed to avoid a build-up of defensive stores, and complete investment for the same reasons.⁶ The number of troops needed for a siege remained an issue. To invest the town, besiegers considered a force three quarters the size of the garrison sufficient. However, besieging armies aimed for ratios of five-to-one or more to build trenchworks, man the guns, move supplies, and form the army of observation. The army of observation replaced a force manning outer-facing trenchworks as the way to check counter-attacking relief forces.⁷ Sieges developed into sophisticated, combined-arms operations that overcame attritional assault methods. As cities and armies modernized, siege methods changed, but Vauban's base concepts remained consistent.

Sieges primarily used an assault, starvation, or bombardment to capture the city. In all three methods, the besiegers isolated the city by investment, defended against sorties or relief force attacks, and held the initiative. The military theorist, Carl Von Clausewitz, in his book *On War*, remarked that "a siege is an operation that cannot result in disaster."⁸ Because the besieger

⁴ Carl Von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1984), 393.

⁵ Sebastien L. Vauban, *A Manual of Siegecraft and Fortification*, trans. George A. Rothrock (Ann Arbor, MI: University of Michigan Press, 1982), 22-91.

⁶ *Ibid.*, 161.

⁷ Christopher Duffy, *Fire & Stone: The Science of Fortress Warfare, 1660-1860* (London: Greenhill Books, 1996), 109-114.

⁸ Clausewitz, *On War*, 552.

held the initiative, the operation could be halted if needed and the defeat mechanism changed. A commander could change the method according to his strengths or according to the dictates of the OE. In broad terms, an assault required additional manpower but less time, starvation required more time but less manpower, and bombardment required more materiel but less manpower. A commander could combine methods or reject one for various reasons.

Urban operations have always been known for high costs in men, materiel, and time. Historically, the besieging army took casualties while investing the city and in the assault. Within firing range of the garrison, men dug trenchworks and mines to approach the fortifications gradually. Like an assault into the outskirts of a city, these engineering efforts took time and produced casualties.⁹ The second likeliest area for casualties was in the final assault on fortifications. Without surprise or other unique circumstances, assaults often failed. One example just seven years prior to the 1870-71 siege of Paris was Lieutenant General Grant's operation to capture Vicksburg, Mississippi. Soon after investing the city, Grant ordered two assaults against the defensive works of Vicksburg and both were repulsed with heavy casualties. Following these attempts, Grant used starvation and bombardment to gain victory.¹⁰ Besieging armies could limit casualties if they avoided the advancement of trenchworks under fire, assaults, or clashes with relieving armies.

Often, the decision to besiege and the operation's success depended on materiel support. In *On War*, Clausewitz noted, "Most sieges fail because of a lack of equipment."¹¹ In the 18th century, the artillery trains created the largest logistical tail.¹² Necessary to breach the fortifications, artillery turned sieges into operations that forced consideration of basing and

⁹ Roger J. Spiller, *Sharp Corners: Urban Operations at Century's End* (Fort Leavenworth, KS: US Army Command and General Staff College Press, 2001), 62.

¹⁰ Timothy B. Smith, *The Decision was Always my Own: Ulysses S. Grant and the Vicksburg Campaign* (Carbondale, IL: Southern Illinois University Press, 2018), 154-164.

¹¹ Clausewitz, *On War*, 552.

¹² Duffy, *Fire & Stone*, 110-111.

operational reach. The siege became an operation, consuming armies to seize one city. The materiel demands of sieges continued into the 20th century. In 1914, the German army diverted 125,000 men to besiege Antwerp, a compact city with a population of around 350,000.¹³ The fortified city also had outlying forts protecting it, necessitating a large artillery force and large expenditure of ammunition to capture the city. At Antwerp, the Germans provided the necessary manpower and specialized heavy artillery to invest the city, bombard the fortifications, and defeat sorties of defenders.

Sieges throughout history varied, from days to years in duration. The World War II siege of Leningrad lasted well over two years while the 1914 siege of Antwerp lasted only twelve days.¹⁴ Two significant factors were the defeat mechanism chosen by the besiegers and the degree of isolation imposed on the city and garrison. When the seizure of the fortified city was the campaign objective, commanders would usually prepare for long sieges, lasting the season. However, many sieges were unexpected, thus creating a sense of time and initiative slipping from the attackers. At Vicksburg, Grant had no expectation of digging trenchworks and mines to methodically approach the city. Yet, finding patience, Grant besieged the city for six weeks until its surrender.¹⁵ The essential need for patience is bluntly detailed in *Art of War* when Sun Tzu said, “If your commander, unable to control his temper, sends your troops swarming at the walls, your casualties will be one in three and still you will not have taken the city.”¹⁶ The cost of time to a besieger weighed heavily and became a key consideration on whether to begin a siege or not.

¹³ Clayton Donnell, *Breaking the Fortress Line 1914* (South Yorkshire, UK: Pen & Sword Military, 2013), 180-195; Daniel Van Basten, *WW I: The Siege of Antwerp, The Defeat and Retreat of Belgium* (n.p.: Create Space Publishing, 2016), 85-92.

¹⁴ David M. Glantz, *The Siege of Leningrad 1941-1944* (Osceola, WI: MBI Publishing, 2001), 7; Van Basten, *The Siege of Antwerp*, 92-98.

¹⁵ Williamson Murray and Wayne Wei-siang Hsieh, *A Savage War: A Military History of the Civil War* (Princeton, NJ: Princeton University Press, 2016), 324-325.

¹⁶ Sun Tzu, *The Art of Warfare*, trans. Robert G. Henricks (New York: Ballantine Books, 1993), 111.

Outside of the high costs to men, materiel, and time, sieges gained notoriety as attritional, brutal warfare. Sieges with the purpose of (or resulting in) genocide or pillage brought unique brutality to the battlefields. Atrocities occurred in all methods of war, but because besiegers held the initiative and power, sieges produced devastation in their own way. The siege of Leningrad became the deadliest siege in history from the wanton bombardment and starvation inflicted by the besiegers.¹⁷ German commanders never attempted separation or distinction of combatants from non-combatants. Facing the prospect of supporting millions of inhabitants, Adolf Hitler directed his army to deny any surrender or negotiations.¹⁸ This directive and its execution made the objective of the siege not the seizure of Leningrad but the annihilation of the inhabitants.

Most sieges did not end with destruction of the city or a final assault, but instead with surrender. In 1863, Grant negotiated with the Vicksburg garrison for the surrender and subsequent parole of 30,000 Confederate defenders.¹⁹ In 1914, the German army negotiated the surrender of the remaining 65,000 troops defending Antwerp.²⁰ Even during World War II, the first allied operation against a major German city ended with surrender. In 1944, two divisions began isolating the city of Aachen. The US First Army culminated from a lack of fuel and ammunition, so efforts shifted to clear bypassed German strongholds, one being Aachen. The German commander nearly surrendered the city without a fight, but shortly before had received word from Adolf Hitler to defend to the last man. With the encirclement still incomplete, the Americans offered unconditional surrender, and the German garrison refused. Following a combination of siege and assault, two US divisions fully encircled the city two weeks later. After four more days of continued fighting, the German garrison surrendered. Of the initial 5,000

¹⁷ Glantz, *The Siege of Leningrad*, 178-180.

¹⁸ Ibid., 41; Anna Reid, *Leningrad: The Epic Siege of World War II, 1941-1944* (New York: Walker & co., 2011), 134-135.

¹⁹ Smith, *The Decision was Always my Own*, 192-200; Murray and Hsieh, *A Savage War*, 325.

²⁰ Van Basten, *The Siege of Antwerp*, 95-99.

German defenders, nearly 3,500 surrendered during the fighting, while 1,600 defenders surrendered in mass on the last day, despite receiving orders to fight to the last man.²¹ World War II may be known for brutal, total war such as the siege of Leningrad, but Aachen demonstrated that garrisons would capitulate if fully isolated and pressured.

Following World War II, urban combat became more frequent and featured more assaults than it did sieges. No longer did all urban battles begin with the complete isolation of the defenders. The 1950 battle for Seoul, South Korea and the 1968 battle for Hue, South Vietnam never isolated the city or defenders and are best summarized as direct assaults to clear the city with street-to-street fighting.²² The increased frequency, mixed results, and new approaches drove change to US doctrine that sidelined sieges as an operational approach.

US doctrine evolved with the lessons learned in 20th century battles. The US Army published its first urban operations doctrine in 1944 with a focus on attack over defense and firepower to bombard. All urban operations started with isolation of the city and doctrine recommended against direct assault of heavily defended urban areas. Avoiding urban combat remained the preferred course. The 1979 Field Manual (FM) 90-10, *Military Operations in Urban Terrain (MOUT)*, acknowledged cities as possible battlegrounds for Cold War conflicts in Europe and still focused on the attack.²³ Isolate, assault, and clear became the process for urban warfare and remained a theme throughout US Army doctrine on urban operations. Historical siege operations gradually left the lexicon of US Army doctrine as the ground assault gained primacy. While isolation remained a tenet of urban operations, US Army doctrine centered on open-field combat, thus pushing designs for mobility and deep penetrations onto urban terrain concepts. The

²¹ Robertson, *Block by Block*, 63-85.

²² John Antal and Bradley Gericke, eds., *City Fights: Selected Histories of Urban Combat from World War II to Vietnam* (New York: Ballantine Books, 2003), 325-335, 347-371.

²³ Antal and Gericke, *City Fights*, 393-409.

siege was an environment unsuited to army culture and viewed as an aberration.²⁴ By 2001, urban operations doctrine had no significant resemblance to historical siege operations.

US experiences of urban combat during the Global War on Terrorism varied widely, from large-scale street fighting to wide-area security missions. Modern urban warfare shared many similarities to urban warfare throughout history.²⁵ The 2001 and 2003 seizures of Kabul and Baghdad demonstrated the power of surprise to catch defenders unawares. The well-publicized battle for Fallujah in 2004 characterized the direct assault through city streets. Conversely, the Ramadi campaign in 2006 deliberately avoided this approach and used time, proxy forces, and the methodical progression of outposts into the city to win.²⁶ The 2008 battle for Sadr City reflected historical sieges even more with the construction of a concrete wall to isolate the defenders physically.²⁷ Commanders were re-discovering methods of capturing cities not thoroughly explained in US Army doctrine. Engineering efforts, heavy men and materiel needs, isolation as a decisive point, formations to check sallies and relief forces, and the control of time and the initiative signaled a departure away from bloody assaults and towards modern siege warfare.

Today, urban operations reflect historical siege operations more and more. Ground assaults remain a key tenet of city fighting, but the OE is decreasing their utility. In a 2018 essay entitled “The Reemergence of the Siege: An Assessment of Trends in Modern Land Warfare,” US Army officer and author Major Amos Fox identified armies using sieges to isolate, reduce, and degrade defenders, but in combination with penetrations.²⁸ Russian forces in Ukraine and US

²⁴ Michael Evans, “City Without Joy: Urban Military Operations into the 21st Century” (Australian Defence College Occasional Paper No. 2, Australian Defence College, 2007), 3-6.

²⁵ DiMarco, *Concrete Hell*, 15.

²⁶ *Ibid.*, 196-209.

²⁷ David E. Johnson, M. Wade Markel, and Brian Shannon, *The 2008 Battle of Sadr City: Reimagining Urban Combat* (Santa Monica, CA: RAND, 2013), 71-78.

²⁸ Amos C. Fox, “The Reemergence of the Siege: An Assessment of Trends in Modern Land Warfare,” *Institute of Land Warfare*, no. 18-2 (June 2018): 1-6, accessed 14 September 2020, <https://www.ausa.org/publications/reemergence-siege-assessment-trends-modern-land-warfare>.

forces in Iraq traded time and resources for decisive victories in urban areas. Instead of starvation, armies isolated to reduce morale and other resources. Bombardments to breach or compel surrender were replaced with precision bombing and small-unit raids.

Direct assaults into urban areas still occur, but US forces recognize the troubles of collateral damage, vulnerable ground troops and heavy casualties, and the loss of momentum from these operations.²⁹ Amongst this recognition lies the future OE expected by US military planners. The emerging adversaries possess even greater capability to defend urban terrain against assaults. Historical siege operations offer insights into conquering this unique terrain and how an operational approach can use isolation as the primary defeat mechanism. Military historian Roger Spiller, in his 2001 book *Sharp Corners: Urban Operations at Century's End*, wrote, "To say that the concept of a siege is antithetical to the self-image of modern military establishments is an understatement. ... But the siege has shown itself to be long-lived, highly adaptable to time and space."³⁰

The Urban Problem in the Future Operating Environment

US military doctrine describes a changing OE for the future. As a holistic term for the conditions, circumstances, and influences that affect military operations, the future OE predicts characteristics of warfare, likely environments, and adversaries. Spurring much of the change are the rise of state actors forming a multi-polar world, resource competition, technology proliferation, a growing information domain, and greater instability.³¹ These trends signal a

²⁹ Asymmetric Warfare Group, "Modern Urban Operations: Lessons Learned from Urban Operations from 1980 to the Present" (November 2016), 1-2; Gian Gentile et al., *Reimagining the Character of Urban Operations for the U.S. Army: How the Past can Inform the Present and Future* (Santa Monica, CA: RAND, 2017), 61-63; US Army, "Mosul Study Group: What the Battle for Mosul Teaches the Force" (No. 17-24 U, September 2017), 10, 13, 28, 55.

³⁰ Spiller, *Sharp Corners*, 37.

³¹ US Department of Defense, Joint Staff, Joint Operating Environment (JOE) 2035, *The Joint Force in a Contested and Disordered World* (Washington, DC: Government Publishing Office, 2016), ii-iii, 5, 20; US Department of Defense, Joint Staff, Joint Publication (JP) 3-0, *Operations* (Washington, DC: Government Publishing Office, 2017), I-3-4.

departure from the experiences and norms of the US military. The future OE may place forces in unfamiliar terrain and facing different adversaries.

The increasing urbanization of the world's populations and the importance of cities to further globalization means urban terrain is a likely future battlefield. Today, fifty-five percent of the world's population lives in urban areas.³² Mass migrations and high population growth are causing cities to grow and more cities to fill once open countryside. FM 3-0, *Operations*, states, "future battlefields will include noncombatants, and they will be crowded in and around large cities."³³ Today there are thirty-three megacities with ten million or more inhabitants, and 1,113 cities with a population between 500,000 to ten million.³⁴ As cities expand in number and scale, the likelihood of US forces fighting in urban terrain increases. Siege operations must increase in scale too, and larger cities will naturally require larger force structures. Planners may also capitalize on the distinct districts, boroughs, and enclaves of a metropolitan area to besiege only one section of a city instead of the entire built-up area.

While militaries may wish to avoid urban operations, the reasons forces fight in and near cities remain relevant today. Cities become objectives for ground forces because they are strategic centers of gravity, key terrain, or simply where the enemy is located. The reason a city becomes strategically significant varies. The city may be the capital or a seat of power, an economic or cultural center, or a symbol of resistance. As key terrain, cities are logistical hubs, provide critical infrastructure, control geographically significant areas, and contain much of a region's inhabitants. Enemy forces located in a city may be too threatening to bypass.³⁵

³² United Nations, Department of Economic and Social Affairs, Population Division, *The World's Cities in 2018 – Data Booklet* (New York: UN, 2018), 1, accessed 14 September 2020, <https://digitallibrary.un.org/record/3799524?ln=en>.

³³ US Department of the Army, Field Manual (FM) 3-0, *Operations* (Washington, DC: Government Publishing Office, 2017), 1-2.

³⁴ United Nations, *The World's Cities in 2018*, 3.

³⁵ Robertson, *Block by Block*, 4-7.

Friendly forces face adversaries with capabilities that leverage urban terrain advantages. One major capability of adversaries is anti-access and area denial (A2AD).³⁶ Paired with the benefits of urban terrain, an adversary's critical A2AD systems will enjoy cover and concealment via sanctuary. Sanctuary is a form of protection using political, legal, and/or physical boundaries to restrict freedom of action by a friendly force commander. Sanctuary includes the cover and concealment provided by dense urban terrain, but also methods such as hiding among noncombatants and culturally sensitive structures.³⁷ Additionally, proliferating technologies are enhancing enemy capabilities. Joint Publication (JP) 3-0 states, "By acquiring advanced technologies, adversaries are changing the conditions of warfare the US has become accustomed to in the past half century."³⁸

Military planners confronting a higher likelihood of urban operations will also confront the significant advantages that cities provide to the defense. Buildings become fortresses, providing cover and concealment to the defenders and greater observation. Assaulting forces face slowed tempo, limited avenues of approach, obstacles and gap crossings, and disrupted communications. Mobility and high-tech advantages are reduced.³⁹ Subterranean complexes and built-up areas degrade weapons effectiveness, reconnaissance, and communications.⁴⁰ Many of the advantages enjoyed by US forces are nullified by urban terrain. The complex terrain favors

³⁶ US Joint Staff, JP 3-0 (2017), GL-6. Anti-access is defined as action, activity, or capability, usually long-range, designed to prevent an advancing enemy force from entering an operational area. Area denial is defined as action, activity, or capability, usually short-range, designed to limit an enemy force's freedom of action within an operational area.

³⁷ US Army, FM 3-0, 1-11.

³⁸ US Joint Staff, JP 3-0 (2017), I-3-4.

³⁹ Robert H. Scales, Jr., "The Indirect Approach: How US Military Forces can Avoid the Pitfalls of Future Urban Warfare," *Armed Forces Journal International*, (October 1998): 1-7, accessed 14 September 2020, <https://apps.dtic.mil/dtic/tr/fulltext/u2/a399275.pdf>.

⁴⁰ US Joint Staff, JOE 2035 (2016), 12.

the defender and increases risk to any offensive action. FM 3-0 describes the future OE as, “Lethal, intense, and brutal.”⁴¹ Urban terrain only compounds this outlook.

US Doctrine

US joint and army doctrine remains based upon offensive movement and maneuver, with urban terrain considered a specialized situation. At the joint and army level, the 3-0 series, *Operations*, is a capstone manual for the wide-ranging mission sets a force may execute. Underneath 3-0 is the 3-06 series, *Urban Operations*, and in neither series is there significant divergence from one another. The US Army has additional urban operations manuals but these are tactically focused and discussed only as applicable.

US Army manual Army Doctrine Publication (ADP) 3-0 describes four defeat mechanisms used by friendly forces to accomplish their mission against enemy opposition. Commanders can choose between destruction, dislocation, disintegration, or isolation to create physical, temporal, or cognitive effects. A siege, like all operations, may use a combination of all four mechanisms, but in different measures due to circumstances. The fourth mechanism, isolation, is often identified in doctrine and literature as a first step in urban operations. As a defeat mechanism, the US Army defines isolation as separating a force from its sources of support, encompassing multiple domains for physical and psychological effects, reducing a force’s situational awareness, degrading the force over time, and denying a force capabilities needed to maneuver at will.⁴² These attributes of isolation provide a starting point within doctrine to understand how a planner would creatively design a siege operation.

Within ATP 3-06, isolation is discussed as a necessary step to weaken the defense and limit its maneuver, but there are few concepts described to defeat the enemy via isolation. Instead,

⁴¹ US Joint Staff, JOE 2035 (2016), 1-2.

⁴² US Department of the Army, Army Doctrine Publication (ADP) 3-0, *Operations* (Washington, DC: Government Publishing Office, 2019), 2-4.

ATP 3-06 provides the standard forms of offensive maneuver and methods of attack.⁴³ Other options provided are a combination of fires and maneuver, direct action by special forces, and information operations. While ATP 3-06 touches on cognitive effects and using dislocation, disintegration, and isolation to defeat the enemy on urban terrain, most of the methods provided use the destroy mechanism. Isolation of the city is encouraged, but isolation is not described as the primary method to defeat the adversary.

Neither US joint nor army doctrine define, discuss, or proscribe siege operations. The closest concept within doctrine is the tactical enabling task of encirclement. Army publication, FM 3-0, *Operations*, defines encirclement operations as “operations where one force loses its freedom of maneuver because an opposing force is able to isolate it by controlling all ground lines of communications and reinforcement.”⁴⁴ Encirclements, as described by doctrine, are typically focused on the enemy and are strictly tactical actions. Urban terrain is never mentioned. Once encircled with an inner and outer ring, FM 3-0 provides the choice of reduction by fire or fire and maneuver. Reduction by fire alone has disadvantages of needing weapons, ammunition, and time but may reduce collateral damage and casualties. Reduction by fire and maneuver has four techniques which can be used alone or combined: continuous external pressure, divide and conquer, selective reduction, and infiltration. Continuous external pressure is described as “the classic siege technique” and uses enemy containment, fires, and ground attacks in a battle of attrition. The disadvantage mentioned is friendly forces will take more casualties, again showing doctrine’s assumption of maneuver and assaults as part of every operation. The other three techniques use penetrations and related maneuvers or fires to reduce the enemy.⁴⁵ While

⁴³ US Army, ATP 3-06, 4-5 – 4-7. The standard forms of offensive maneuver are: envelopment, turning movement, infiltration, penetration, frontal attack, and flank attack. The standard methods of attack are: movement to contact, attack, exploitation, and pursuit.

⁴⁴ US Army, FM 3-0, 5-16.

⁴⁵ *Ibid.*, 7-57 – 7-58.

encirclement operations contain much of the basic doctrine necessary for a siege, nowhere in US Army doctrine is the connection made to use encirclement operations on urban terrain.

While recognizing the unfortunate necessity of fighting in cities, ATP 3-06 describes seven specific risks to urban operations. The seven risks provide a litmus test on whether a siege operation would be suitable, feasible, and acceptable. The first risk is inadequate force strength and describes the need for three to five times greater troop density and a particular high need for infantry. The second risk is conduct information operations but the description does not match the title. Instead, this section describes the need for specially trained troops such as dismounted infantry, combat engineers, fire support, and special operations. Other unique force package needs are highlighted as well. The third risk is increased military casualties and describes the heavy toll incurred on friendly forces as they conduct unavoidable frontal assaults through the city. The fourth risk is unavoidable collateral damage and describes damaging world or domestic opinion through exorbitant infrastructure damage or civilian casualties. The fifth risk is lack of time and loss of momentum. Here, the doctrine admits that urban operations can be time consuming and resource intensive, but a commander must not allow a delay to the bigger operation. This risk describes urban operations as part of shaping operations and the consolidation phase – not as the decisive operation. The sixth risk is increased vulnerabilities and describes threats to force protection and mobility. Additionally, friendly forces are more prone to defeat in detail and fratricide chances are increased. Finally, the seventh risk is potentially destabilizing escalation and briefly describes the higher chances for violence due to unavoidable close contact with enemies and civilians.⁴⁶ See Figure 1 for these risk considerations. All of these risks seem to assume the friendly forces are assaulting into the urban area without explicitly stating it.

⁴⁶ US Army, ATP 3-06, 2-2 – 2-6.

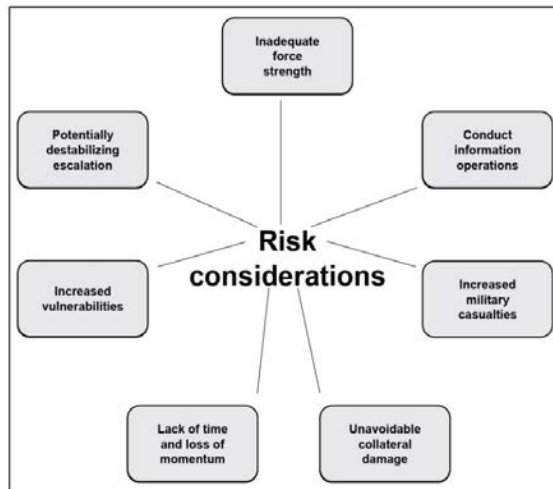


Figure 1. Risks Associated with Urban Operations. US Department of the Army, Army Techniques Publication (ATP) 3-06, *Urban Operations* (Washington, DC: Government Printing Office, 2017), 2-3.

Case Study: Paris 1870-1871

The Franco-Prussian War lasted six months and involved millions of armed men, but the war was just one moment in the contentious history between France and Germany.⁴⁷ As neighbors on a continent rarely finding peace, the two powers invaded one another, disputed territorial claims such as the rich regions of Alsace and Lorraine, and developed cultural animosities toward one another. When war broke out in 1870, both sides remembered Napoleon I’s humiliation of the Prussian army during the Battle of Jena and ensuing peace terms in 1806.⁴⁸ Peace held between the powers from Napoleon’s demise to 1870, but the decades between saw domestic upheaval, further industrialization of economies and societies, technological leaps, and a shifting European balance of power.

⁴⁷ This case study refers to Prussia and her confederated allies as Germany for the purpose of clarity. Entering the war in July 1870 as Prussia under Kaiser Wilhelm I and the North German Confederation, the nation coalesced into the German Empire in January 1871 before the war’s end.

⁴⁸ Michael Howard, *The Franco-Prussian War* (New York: Routledge, 2001), 41.

Strategic Setting

War broke out on July 15, 1870 when France, under Emperor Napoleon III, declared war. On the heels of rising tension since Germany's defeat of Austria in 1866, France saw war as inevitable and marched east to invade Germany over an attack of her honor.⁴⁹ Goaded into action by German Chancellor Otto von Bismarck, Napoleon III hoped to restore the balance of power on the continent and distract the home front from the realities of a declining French empire.⁵⁰ Bismarck now had his opportunity to seal the young German Confederation together under wartime nationalism at the expense of the detested French Empire.⁵¹ Territorial gain, specifically in Alsace and Lorraine, was desirable but not completely necessary in July 1870.

Across Europe, the other major powers predicted an easy win for the mighty French Empire, but many cheered on Germany as the victim of a more powerful state with a questionable cause for war. By Napoleon III's ostracizing of potential allies and Bismarck's political maneuvering, no powers intervened throughout the war. Austria and Denmark promised support only if France brought the war into Germany. Britain remained on the sidelines since Germany never developed the conflict into a naval contest or a threat to its colonial possessions.⁵² These circumstances, in addition to continued political maneuvering by Bismarck, prevented dangerous escalation and forced settlement by outside powers throughout the long siege.

With the war eschewing naval maneuver and colonial contests, the two land armies took center stage. By 1870, the French army became a representation of the greater French Empire, an aspiration for much of the world but plagued by deep-set problems. French victory against the Austrians in 1859 reinforced the army's Napoleonic era tactics and technology, such as brass

⁴⁹ Alistair Horne, *The Fall of Paris: The Siege and the Commune, 1870-71* (New York: Penguin Books, 1981), 58-59.

⁵⁰ Geoffrey Wawro, *The Franco-Prussian War: The German Conquest of France in 1870-1871* (Cambridge: Cambridge University Press, 2003), 26-29.

⁵¹ *Ibid.*, 22; Howard, *The Franco-Prussian War*, 40-43, 233.

⁵² Howard *The Franco-Prussian War*, 63, 74, 454.

muzzle-loading cannons, cavalry charges, and tightly-formed infantry charging with bayonets. Budget cuts and the French people's general suspicion of powerful armies stymied any forward-thinking leaders from modernizing their forces or training guard and reserve forces. France marched eastward in 1870 with about half the units being poorly trained reserve forces, a broken officer system resulting in questionable talent, and incapable mobilization methods and logistics.⁵³ The army had superior rifles in the Chassepot and an early machine gun, the *Mitrailleuses*, which, when properly employed in a defense, blunted any offensive.⁵⁴ Yet awful maneuver techniques, ineffective *Mitrailleuses* employment, and antique artillery found the French army outmatched in maneuver warfare.

The German armies outclassed the French in nearly everything, with the exception of infantry weaponry, and Army Chief of Staff Helmuth von Moltke's organizational talents created a well-honed force. Moltke organized active troops into three primary field armies. Each army contained three to six infantry corps, two cavalry divisions, and one or two artillery regiments, while also controlling another 200,000 reservist troops suited for defending the homeland, lines of communication, and consolidation areas.⁵⁵ Germany enjoyed advantages in operational maneuver, communications, planning, and troop quality due to their staff system, training, and recent combat experience. The army excelled in open battle with well-led infantry, cavalry

⁵³ Howard, *The Franco-Prussian War*, 29-34.

⁵⁴ Wawro, *The Franco-Prussian War*, 41-64. The French army blundered through war mobilization and never improved upon this inadequacy. The units themselves suffered from deplorable states, partially due to lacking training or discipline and an officer corps facing corruption, luddites, and overconfidence. However, the superior infantry weapons were a serious advantage against infantry assaults. The Chassepot had double the range and it, along with the *Mitrailleuses*, possessed much greater rates of fire.

⁵⁵ Helmuth von Moltke, *The Franco-German War of 1870-71* (London: Lionel Leventhal, 1992), 7, 432-447.

modernized towards reconnaissance and deep maneuver, and most importantly, steel Krupp artillery that destroyed Chassepot-armed French soldiers.⁵⁶

From July 1870 to September 1870, the German army destroyed every French field army and assumed the war won. Moltke's superior maneuvering of armies and superior artillery defeated the initial French offensive at Wissembourg and Spicheren despite more German casualties than French casualties.⁵⁷ In mid-August, the two massive battles of Mars-la-Tour and Gravelotte resulted in two more German victories and the retreat of Marshall Achille Bazaine's forces into the Metz fortress. Most of the German leadership at the Battle of Gravelotte witnessed horrendous carnage of their troops by chassepot fire during their assaults, saved only by overwhelming artillery support.⁵⁸ The first phase of the war ended weeks later when outmaneuvered French forces, holed up in the citadel of Sedan, surrendered in mass to German forces. The French emperor and 80,000 troops surrendered after hardly a fight and brought an end to the empire and seemingly the war.⁵⁹ Yet, despite an army in disarray and the emperor

⁵⁶ Howard, *The Franco-Prussian War*, 21-29; Wawro, *The Franco-Prussian War*, 41-64. The German General Staff, led by Moltke, professionalized the force and enabled a faster tempo for the army. Led by these elite officers, the German army utilized the railroads and telegraph system to position armies advantageously on the battlefield. Less impressive were the tactics still used by these field armies and corps. German units usually attacked in tight columns and into deadly swaths of fire, but the combined arms teaming of vastly superior artillery provided overmatch. The steel, breech-loading Krupp artillery pressed just behind the infantry and fired deadlier shells faster and further than anything seen before.

⁵⁷ Horne, *The Fall of Paris*, 68.

⁵⁸ Wawro, *The Franco-Prussian War*, 138-185. King Wilhelm I was present at the Battle of Gravelotte and initially thought Germany had lost because of the high casualties. Moltke was also present and both witnessed the near destruction of the 3rd Guard Regiment in one quick assault. One German source estimated seventy percent of German casualties came from chassepot fire and seventy percent of French casualties came from artillery fire.

⁵⁹ Horne, *The Fall of Paris*, 74-78.

captured, peace negotiations failed.⁶⁰ For Germany, nationalism swept through the army and home land, as hopes for revenge of Jena, security on the border, and return of Alsace and Lorraine became the new political objectives.⁶¹ With the French field forces in tatters, no armistice, and new strategic ambitions, the German army marched towards Paris.

Located over one hundred miles northeast of Paris, Moltke reorganized his armies. Prince Frederick Charles besieged Metz with seven combined-arms corps.⁶² Over 40,000 troops besieged Strasbourg from August 14 to September 27. The reservists consolidated gains and defended the line of communication, while 150,000 troops under Moltke, organized around eight infantry corps, remained to seize Paris. German forces were confident and superior, but had a vulnerable, lengthy line of communication. Only two railways linked Moltke's forces to Germany, and vulnerable bridges and smaller French forts plagued each route. Additionally, the limited German siege guns moved towards Metz and Strasbourg instead of towards Paris.⁶³

For the French army, two major forces remained after the Battle of Sedan. Within the fortress of Metz, Marshall Bazaine commanded five regular army corps totaling over 150,000 men.⁶⁴ This force was well armed, provisioned, and capable of threatening a sally and breakout from Prince Frederick Charles' siege at any time. The other major force was Fortress Paris. A mix of over 400,000 regular, reserve, and levy troops guarded the crown jewel of the French

⁶⁰ Spiller, *Sharp Corners*, 47; Howard, *The Franco-Prussian War*, 229, 339-340. For the French, a new government led by Jules Favre and Leon Gambetta formed two days after the capture of Napoleon III. Within Paris, they became the head of the provisional government, complicating any negotiations. Eventually called the Government of National Defense, the radicals (nicknamed "Reds") wanted total war against Germany and pushed aside calmer voices. Now three power brokers had potential negotiation power for the state of France – the new Government of National Defense, the Empress Eugenie who schemed from Britain, and Marshall Bazaine, a respected hero now surrounded at Metz. Bismarck had no guarantees any armistice would be accepted nationwide, and thus he viewed capturing Paris as the best way to end any remaining resistance.

⁶¹ Wawro, *The Franco-Prussian War*, 230-231.

⁶² Howard, *The Franco-Prussian War*, 191, 230-231, 273.

⁶³ Horne, *The Fall of Paris*, 251-252, 267.

⁶⁴ Howard, *The Franco-Prussian War*, 257.

Empire.⁶⁵ General Louis Trochu, an experienced and talented commander, became governor and military commander of Parisian forces with General Auguste Ducrot as his slightly impetuous but capable second in command.⁶⁶ Two million inhabitants packed into the recently rebuilt city of Paris. A thirty-foot high wall surrounded Paris and contained 3,000 cannons with interlocking fields of fire. Within range of the wall, sixteen separate forts ringed the city and also had interlocking fires guarding every avenue of advance.⁶⁷ Buildings within nearby towns became fortresses themselves. Trochu ordered minefields emplaced, earthworks and redoubts built, roads and the river Seine obstructed, and forests destroyed to lengthen fields of fire. Even the barely-trained French troops could shatter infantry assaults from the safety of their fortified positions and along the densely packed streets of Paris.

Siege Operations

Immediately following the victory at Sedan, Moltke pushed his armies towards Paris. The investment of Paris was not a sudden strike, but a gradual process. German forces remained behind on the march to oversee the tens of thousands of French prisoners at Sedan and to conduct battlefield clean-up. Main bodies advanced on September 7th, worked through destroyed bridges and harassment by irregular forces, and reached the Paris outskirts on September 15th. Approaching from the east side of Paris, Moltke gave orders to remain beyond the cannon range of fortresses and to encircle the city. German units smartly established an investment line. Outlying villages were seized, the Seine and Marne river banks used as cover, and key terrain occupied.⁶⁸ On September 20th, Germany had fully encircled Paris and her forts with an investment line eighty kilometers long. Six infantry corps manned the line, with cavalry guarding their rear and field artillery emplaced on key terrain.

⁶⁵ Ibid., 319-321.

⁶⁶ Howard, *The Franco-Prussian War*, 37, 323.

⁶⁷ Horne, *The Fall of Paris*, 44, 87-94.

⁶⁸ Moltke, *The Franco-German War*, 124-128.

Paris nearly allowed this investment of the city without a fight, as General Trochu hoped German troops would assault the city and become easy targets for Chassepots during street fighting. However, General Ducrot saw the danger in key heights and outlying towns falling into German hands. Using two corps of regular troops, he organized the defense of the Chatillon Plateau, key terrain on the south side which threatened three French forts. Ducrot defended and counter-attacked the Germans for two days, but the inexperienced French troops failed in the offensive under German artillery fire. Germany seized these key heights, which cut Versailles off from Paris and shortened their investment line.⁶⁹

Germany completed the investment on September 20th, 1870 and did not achieve capitulation until January 28th, 1871. Around Paris, the investment remained the decisive operation. The German investing force, about a fourth of the size of the Paris garrison, defeated any sally attempts. The garrison conducted three smaller sally attempts and four primary sally operations on September 30th, October 27th, November 29th, and January 19th. Six cavalry divisions and Moltke's talent for continually shifting forces (with seven infantry corps made available in late October with the surrender of Metz) protected the rear.⁷⁰ These forces constituted Moltke's Army of Observation, charged with preventing any relief of Paris. Across the French countryside new armies formed. Two new French army corps, totaling up to 200,000 men, attacked north to and then through Orleans on the south side of Paris, hoping to link up with any sally attempts out of the city.⁷¹ On the north side of Paris, closer to Amiens and then the nearby town of Ham, a smaller French army tried to reach St. Denis. In the West, France created the Army of the Loire and attacked in early December. Finally, starting south of Paris and moving east to cut German logistics, General Charles-Denis Bourbaki led a final attempt with 110,000

⁶⁹ Philip Sheridan, *The Personal Memoirs of P.H. Sheridan* (New York: Da Capo Press, 1992), 522-523.

⁷⁰ Howard, *The Franco-Prussian War*, 342-343, 332-335, 365.

⁷¹ *Ibid.*, 287-296.

troops to relieve Belfort, cut the rail lines east of Paris, and link up with a sallying force.⁷² The siege of Paris was a dynamic maneuver operation to balance the decisive operation around Paris with shaping operations to defeat these significant relief forces.

Kaiser Wilhelm I and Chancellor Bismarck stepped aside as Moltke decided how to defeat Paris, with the latter settling on starvation as the primary method and never considering an assault. German forces were dangerously outnumbered and already holding a thin line, but intelligence sections estimated Paris only had food for ten weeks.⁷³ After touring the Parisian fortifications following the war's end, US General Philip Sheridan remarked, "It would have been very hard to carry the place by a general assault," and agreed with Moltke's decision never to assault.⁷⁴ Moltke faced imposing defenses with a smaller force, had few pressures to force an early capitulation, and had defeated all French field forces giving him the initiative. Thus, choosing to besiege Paris lowered the risk to forces by trading in time.

By choosing a siege operation, the German army had bombardment as another option to defeat Paris. However, three reasons prevented Moltke from choosing this option. First, Crown Prince Frederick III, in command of the southern half of the investment, led a vocal dissension in regards to the humanity of striking civilian areas.⁷⁵ Second, the September 2nd to 27th bombardment of Strasbourg showed that bombardments stiffened resistance and remained

⁷² Wawro, *The Franco-Prussian War*, 293-294.

⁷³ Horne, *The Fall of Paris*, 104.

⁷⁴ Sheridan, *The Personal Memoirs of P.H. Sheridan*, 535.

⁷⁵ A.R. Allinson, *The War Diary of the Emperor Frederick III, 1870-1871* (New York: Frederick A. Stokes, 1927), 129, 223-225.

ineffectual.⁷⁶ Third, the critical siege guns and ammunition were not available.⁷⁷ However, the Kaiser overruled Moltke in December. The Kaiser and Bismarck grew increasingly concerned of international intervention and declining foreign opinions of Germany. On December 27th, Germany artillery began a bombardment of Paris forts.

Victory Through Isolation

Defeat of Sallies

Without ever having to assault the city, the German army brought four major defeats onto Trochu's army. The same reasons necessitating the Germans to besiege the city – Paris as the last bastion of resistance, Paris as the seat of government, and Paris as a symbol to France – also induced French forces to throw themselves at the well-emplaced investment line. Germany always defeated these sallies because of a defense in depth, advance warning, use of terrain, and engineering efforts.

The German investment line began with forward outposts, often within range of French cannons, but largely protected from artillery and sniper fire. Behind lay multiple belts of German fortified positions, with protected infantrymen in cover and coordinated with batteries of artillery. Divisions were held in reserve and telegraph lines connected the outposts all the way back to headquarters for immediate communications. General Ducrot led the largest sally attempt in late November onto the east side of Paris. Initially defeating the outposts in forward villages and the high ground of Mont Avron, the attack stalled as forces crossed the Marne into German entrenchments. The French 42nd Regiment lost four hundred men, including the colonel,

⁷⁶ Howard, *The Franco-Prussian War*, 274-275.

⁷⁷ Horne, *The Fall of Paris*, 251-252. Germany's siege guns were participating in the sieges of Metz and Strasbourg at the time. Moltke had to capture Strasbourg quickly since the fortress guarded a key crossing on his line of communication and would also be an important bargaining chip in any negotiations. Movement of heavy ammunition from Germany up to Paris remained logistically difficult. A key rail line opened up on September 25th with the fall of Toul, but there still remained sixty-three miles of dangerous terrain to cover from the end of the rail to the front. The already strained logistical system would take weeks to transport enough ammunition by wagon to the front.

assaulting an outlying village where German troops fired behind stone walls. Concurrently, a German division counter-attacked and erased any French hopes of seizing key terrain for a breakout.⁷⁸

Like every other sally, the Germans had ample warning before the attack and knew the likely location. From the high ground around Paris, any observer could spot the tens of thousands of French troops marshalling or moving towards the few main avenues large enough for a serious assault. Frederick III often received warnings from headquarters regarding expected sorties. The November 29th sorties by Ducrot were given away by the preparatory bombardment and slow emplacement of pontoon bridges on the Marne.⁷⁹

The German forces expertly incorporated terrain into their defensive line. Like many cities, Paris was built along a river, and both the Seine and Marne rivers provided excellent obstacles to any French sally. During Ducrot's break-out attempt, the river rose unexpectedly and swept away the pontoon bridges necessary to cross the Marne since Germans had destroyed bridges at key crossing points.⁸⁰ The complexity in conducting two wet gap crossings and then assaulting prepared positions delayed the French sally enough for Moltke to shift forces and inflict 12,000 casualties on the French. Elsewhere along the line, high ground gave clear fields of fire for batteries of field guns, and every building became a strong point against French sallies. The Germans were using the urban terrain to their own advantage during the siege.

With sallies a constant threat along the entire line, German commanders made up for shortcomings in troop counts with enormous engineering efforts. On the north side of Paris, engineers destroyed neighboring canals and flooded the fields to create obstacles.⁸¹ Every village became a fortress, improved with redoubts, gun emplacements, and trenches connecting each to

⁷⁸ Horne, *The Fall of Paris*, 191-196.

⁷⁹ Allinson, *The War Diary of the Emperor Frederick III*, 203-204.

⁸⁰ Wawro, *The Franco-Prussian War*, 276-278.

⁸¹ Howard, *The Franco-Prussian War*, 329.

the other. As the war continued, German forces steadily advanced closer towards the city, village by village, building new entrenchments and redoubts to consolidate the investment further.⁸²

With such concentrated effort, the Germans overcame their inadequate force strength and decreased their casualties.

Control of the Initiative

The siege operation against Paris created a trap by erasing the opportunity for newly-formed French armies to attack anywhere but Paris. Issuing a final order to six corps marching north from Orleans, government leader Leon Gambetta wrote, “Never forget that Paris is waiting for us and honour demands that we should wrest it from the grasp of the barbarians who are threatening it with pillage and fire.”⁸³ Every French commander considered only the immediate relief of Paris and not a more opportune attack on German rear areas. The immediate siege around Paris removed any possibility of initiative from the Parisian garrison, but now on a strategic level the siege had also sapped the initiative from all other French field forces.

To counter sallies and relieving armies, the Germans deftly maneuvered divisions and corps across the theater. German forces did not sit idle in a circle around Paris. Instead, Moltke anticipated relief attempts and destroyed the French forces before a threat reached Paris. Frederick III detached cavalry forces to conduct reconnaissance, pulled corps off the line to reinforce elsewhere, and filled the gaps with reserve troops.⁸⁴ These common movements concentrated German forces for key operations and showed Moltke’s understanding of where the main effort should lie.

Attacking French Morale

German operations ultimately hoped for an armistice and a negotiated ending to the war. The German army’s isolation of Paris successfully advanced this strategic goal by cutting nearly

⁸² Moltke, *The Franco-German War*, 352-353.

⁸³ Quoted in Howard, *The Franco-Prussian War*, 304.

⁸⁴ Allinson, *The War Diary of the Emperor Frederick III*, 149, 232-233.

all communication to the city. With the total investment of Paris, the city lost all news of the outside world, including how the rest of the war transpired. France's relief armies never became a source of support to Paris because no communication was possible between the two forces. This isolation brought about boredom, stirred Parisian media towards spreading fear, and dropped morale for citizens accustomed to anything but isolation. German investment forces cut communication by air routes, river routes, land routes, and telegraph routes. The news blackout stoked newspapers to insist on more sallies and to question the government.⁸⁵

As the average citizen within Paris steadily lost hope, French leadership did not. Even up until December 1870, Moltke forbade pursuit of relief armies further than necessary to protect siege lines.⁸⁶ Through January, the French had up to 200,000 troops forming, marching, or fighting to relieve Paris. Although Germany destroyed multiple relief attacks, the French always entered negotiations with a clinging chance of relief forces reaching Paris. The first major negotiation happened on September 19th, before Paris was fully cut off. The second negotiation occurred on November 5th 1870, two days before Aurelle's army marched north from Orleans for the first major relief attack. Even with the final armistice negotiation, in late January, the French negotiator declined to extend the terms outside of the Paris area since he still hoped Bourbaki's force would cut the German supply lines and relieve Paris.⁸⁷ The Germans failed to synchronize negotiations to military operations. Had German armies fully pursued and destroyed French relief forces, the French government may have negotiated earlier.

⁸⁵ Horne, *The Fall of Paris*, 117-119, 163-166, 234. Germany succeeded in nearly total communications blackout of Paris, but one exception were the hot air balloons escaping Paris with personal letters and official communications. No balloons successfully came into Paris with news (the much more important fact) but dozens left the city until German forces began secondary operations to shoot or track down the balloons escaping.

⁸⁶ Howard, *The Franco-Prussian War*, 389.

⁸⁷ Horne, *The Fall of Paris*, 109; Howard, *The Franco-Prussian War*, 339, 430, 442.

Starvation

The purposeful starvation of Paris pressured the city towards capitulating but was not as effective as imagined. Paris never ran out of food, and only the poor suffered from the siege. By the January armistice, Paris still had food on hand and not one restaurant had closed during the siege.⁸⁸ Wealthy citizens could still buy food across the city and Trochu prioritized food stocks to the military. Poor children and women suffered the most. While the true death toll from starvation remains unknown, the French leadership had no need to capitulate from hunger.⁸⁹ The city leadership and military would not have suffered before disproportional numbers of poor Parisians died from starvation.

Bombardment

The bombardment of Paris forts achieved military results, but the indiscriminate bombardment of civilian areas worsened a chance towards surrender. The initial targeting of Mont Avron and then the sixteen forts provided initial gains for German forces. On December 28th, the Germans forced the withdrawal of Frenchmen in Mont Avron fortifications after two days of bombardment – this decreased their investment line length.⁹⁰ From January 5th to January 14th, the Germans now struck forts on the south side of Paris and after heavy shelling succeeded in again reducing the investment line, seizing key terrain, and moving artillery forward to range all of Paris.⁹¹ In this regard, reducing strongpoints of the city helped militarily weaken the defenders and reduce morale. Starting on January 14th, however, Krupp artillery began targeting buildings inside Paris proper. This slowed any prospect of an armistice. Parisian resolve

⁸⁸ Howard, *The Franco-Prussian War*, 369; Horne, *The Fall of Paris*, 225-226.

⁸⁹ Horne, *The Fall of Paris*, 297-298; Wawro, *The Franco-Prussian War*, 276, 282. France's official cost from starvation was only six Parisian citizens, but Horne estimates about 4,800 had a hastened death from hunger. Paris suffered extreme poverty in parts of the city, and this, combined with a cold winter, likely produced much suffering regardless of the total cost. However, primary and secondary sources agree that wealthy Parisians likely suffered little true hardship.

⁹⁰ Howard, *The Franco-Prussian War*, 356-257.

⁹¹ Moltke, *The Franco-German War*, 352-353.

strengthened, political differences were put aside, and European opinion of Germany sank. Moreover, despite firing hundreds of shells daily, only ninety-seven inhabitants were killed, buildings received only superficial damage, and life went on as normal within the city.⁹² The Germans gained militarily from clear targeting of French forts to reduce morale and resistance, but shelling civilian areas became counter-productive and costly to the Germans.

Managing the Seven Risks of Urban Operations

The German army succeeded in reducing risk to their forces while still achieving the overall objective. Paris became the center of gravity and could not be bypassed, but Moltke faced a military situation where assaulting the city seemed absurd. By besieging the city, Moltke removed risks, seized the initiative, and forced the French to fight towards his strengths.

The primary risk remained the low number of forces available. After the Battle of Sedan, the Germans had significant stressors on manpower. Massive prisoners of war populations needed guards, the supply line stretched all of the reserve forces, Metz and many smaller fortresses distracted forces, and continual French relief armies required large armies tasked to defeat them. The actual investment of Paris only required a quarter of the troops Paris held, partly from the smart use of terrain and engineering efforts. Assumptions of huge troop requirements and heavy casualties did not apply to the siege of Paris. Instead, casualties were reduced and vulnerabilities decreased by capitalizing on the unique circumstances the siege produced: German forces remained tactically defensive yet held the initiative. Sallies and relief armies were forced to assault dug-in lines instead of Germans losing thousands in street-to-street fighting while clearing Paris.

Information operations and destabilizing escalation played secondary roles throughout the operation due to skillful political maneuvers before conflict started. International opinion of Germany did wane during the conflict, but the massive loss of life from an assault into Paris may

⁹² Horne, *The Fall of Paris*, 266-267.

likewise have led to declining opinion or stress on the new German Confederation. If anything, the Germans missed opportunities. German information operations could have stoked even further media pressure for Trochu to sally forth.⁹³ The French army had just as much pressure to act and could not sit there idly while an enemy surrounded their city.

The Germans undoubtedly reduced collateral damage by not conducting a full assault into and through Paris. From direct military engagements around Paris, there were a few occasions of accidental shootings or targeting of civilians foraging for food outside the city. The civilian casualties caused by starvation had little connection to the military gains otherwise achieved by the German army. Likewise, the artillery strikes into civilian areas had little connection to military gains, but these caused only minor collateral damage.

Germany defeated the French field armies and prevented foreign intervention which provided time to the military for siege operations. Germany sustained operational momentum despite holding a static investment line. Although little geographic maneuver occurred, initiative remained with the Germans as they defeated newly-created armies, tightened the investment line to bleed the Parisian sallies, and managed troop levels across the theater. The campaign did seem to stall in November and December, but few options remained for the thinly stretched forces. Moltke's decisions to prioritize siege guns to Metz, Toul, and Strasbourg first delayed their availability to the decisive operation and the strained rail lines prioritized everything but siege artillery ammunition. The pressure placed on Parisian forts would have sped capitulation, but ultimately the French field armies had to be defeated so Paris held no hope of relief.

⁹³ Howard, *The Franco-Prussian War*, 328, 332. The German army occasionally conducted information operations, including the placement of misinformation on a captured carrier pigeon. Inside Paris, opportunities abounded. The press disparaged the government so much they considered disbanding the newspapers. Frequently, these same papers screamed for action to defeat the Germans.

Case Study: Beirut 1982

In June 1982, the Israeli military attacked into Lebanon as tensions escalated with the Palestinian Liberation Organization (PLO). Fighting both the Syrian military and PLO troops, the Israeli soldiers reached the city of Beirut and began a two-month siege. Ending in August of 1982, the operation closed with a negotiated settlement and the withdrawal of the PLO from Beirut and southern Lebanon. However, the successful siege and apparent end to conflict became lost in successive failures by Israel. Instead of withdrawing in victory, crises emerged in September 1982 and brought Israeli forces back to Beirut. Domestic Israeli opinion plummeted after local forces allied to Israel massacred 700 civilians in the Beirut suburbs of Sabra and Shatila.⁹⁴ The Lebanese President-Elect was assassinated, causing chaos and preventing Israeli soldiers from leaving. Occupied Lebanon became hostile and the Israeli military suffered more and more casualties. After three years of combating civil war and seeking a peaceful neighbor, Israeli troops largely withdrew and Lebanon remained a quagmire. The First Lebanon War ended in 1985 as an Israeli failure, but the 1982 siege of Beirut was a successful military operation that created the diplomatic maneuver space needed for peace. This subsequent peace became derailed by a multitude of events and failures that ultimately overshadowed Israel's earlier military success.

Strategic Setting

Israel became a state in 1948 within a long-disputed region of the Middle East. The complex environment hosted a wide variety of peoples and factions, including the Palestinians who claimed territory now belonging to Israel. The PLO formed in 1964 as a nationalist group seeking to represent Palestinians and gain their desired homeland by force. Eventually, the PLO settled in southern Lebanon where they could exert influence on Israel's northern border. The

⁹⁴ Richard Gabriel, *Operation Peace for Galilee: The Israeli-PLO War in Lebanon* (New York: Hill and Wang, 1984), 215-218.

organization united many sub-groups through a common goal of defeating Israel and became a quasi-government for southern Lebanon. Using terror tactics and shelling of Israeli border settlements, the PLO gained influence within Lebanon and further backing from Arab allies and the Soviet Union.⁹⁵

The PLO gradually gained power in Lebanon and disrupted the balance between Muslims and Christians. Christian leaders, backed by militias, held power in Lebanon, but the PLO population raised the Muslims to a majority. Tensions flared in 1975 and a civil war ended a year later with a shattered Lebanese government, a fragmented nation between Christians and Muslims, and the PLO in de facto control of southern Lebanon and the western half of Beirut.⁹⁶ Throughout this period, Syria pushed their own agenda. Syria wanted to use the PLO as a mechanism to control Lebanon, but as PLO influence rose during the civil war, Syria intervened militarily. By 1980, Syria allied with the PLO and consolidated forces into Beirut and Eastern Lebanon. The Christian militias, now lessened in power, allied with Israel. The militias needed someone to reinstall them into power, while Israel saw the Christians as capable of rebuilding the Lebanese government and establishing peace.⁹⁷ By 1982, chaos continued in Lebanon. With the government out of power, Syria exerted influence and occupied parts of the country. The PLO entrenched into southern Lebanon and West Beirut, and continued attacking Israel's northern border.

The volatile region flared into larger conflict twice before 1982. In March 1978, the PLO heavily shelled northern Israel, and in response, Israel launched Operation Litani. Over 12,000 troops crossed the border and cleared a ten kilometer zone (excluding the city of Tyre) before

⁹⁵ Trevor N. Dupuy and Paul Martell, *Flawed Victory: The Arab-Israeli Conflict and the 1982 War in Lebanon* (Fairfax, VA: Hero Books, 1986), 25-30.

⁹⁶ Gabriel, *Operation Peace for Galilee*, 39-47.

⁹⁷ Ze'ev Schiff and Ehud Ya'ari, *Israel's Lebanon War* (New York: Simon and Schuster, 1984), 22-30.

withdrawing.⁹⁸ After a few days of heavy fighting, Israel controlled a buffer zone, which they handed over to United Nations (UN) troops. However, the UN force failed to stop PLO aggression and Israel concluded two key lessons. First, the PLO withdrew northwards and avoided defeat in the open, so destruction of the PLO would require attacking them at the root. Second, only Israeli troops were trustworthy to enforce peace-keeping actions against the PLO. These two lessons influenced Israel's decision-making in the First Lebanon War only four years later.⁹⁹

The final significant confrontation occurred in 1981, as Cold War interests increased and military and civilian casualties mounted. Syria, a client state of the Soviet Union, attacked Christian forces in and near the Lebanese city of Zahle. In defense of their allies, Israel jets shot down two Syrian helicopters, provoking Syria to install surface-to-air missiles (SAM) in eastern Lebanon. The missiles occupied the Bekaa Valley, an area between the central mountains of Lebanon and the mountains forming the border with Syria. Before war broke out, the United States intervened and sent Special Ambassador Philip Habib, who eased tensions and brokered peace.¹⁰⁰ Meanwhile, the PLO struck northern Israel with heavier artillery supplied by the Soviet Union.¹⁰¹ Israel responded with heavy airstrikes, including into Beirut, as the fighting escalated. For weeks, the fighting continued until, again, Habib stepped in and brokered a ceasefire. The ceasefire immediately broke as northern Israel came under fire. Tensions escalated further, until the *casus belli* on June 3, 1982, when PLO terrorists killed Israel's ambassador to London.¹⁰² On June 4, 1982, the First Lebanon War began.

⁹⁸ Dupuy and Martell, *Flawed Victory*, 47-51.

⁹⁹ Reuven Erlich, "The Road to the First Lebanon War," The Meir Amit Intelligence and Terrorism Information Center, August 07, 2012, accessed 18 September 2020, <https://www.terrorism-info.org.il/en/20363/>.

¹⁰⁰ Schiff and Ya'ari, *Israel's Lebanon War*, 31-37.

¹⁰¹ Dupuy and Martell, *Flawed Victory*, 56-61.

¹⁰² Gabriel, *Operation Peace for Galilee*, 58; Dupuy and Martell, *Flawed Victory*, 83.

Israel's objectives were securing northern regions from attack by removing the PLO threat, stabilizing Lebanon via the Christian factions, and reducing Syria as a threat and influencer. As the war continued, the Israeli cabinet approved broader military actions and political goals changed.¹⁰³ The shifting ends, ways, and means resulted in disconnects between military campaign achievements and diplomatic efforts.

Several key values, experiences, and considerations underpinned the policy and military strategy of Israel. First, the backdrop of the Cold War limited military operations to avoid escalation. Israel knew any operation must achieve objectives quickly before either the United States or Soviet Union forced a ceasefire.¹⁰⁴ Second, the Israeli military dominated the region, having just made modernizations and expansions after fighting in 1973. It was experienced, highly trained, and educated.¹⁰⁵ However, Israel designed the army for conventional, open desert warfare and had almost no experience in, or expectation of, urban operations.¹⁰⁶ Third, Israeli society remained highly sensitive to battlefield casualties.¹⁰⁷ Israel maintained public support for the war throughout the entire siege operation, and did not experience the drastic drop in support until after the Sabra and Shatila massacres of September 1982.¹⁰⁸ Israel's handling of all these factors reflected in every strategic and military decision throughout the war.

¹⁰³ Schiff and Ya'ari, *Israel's Lebanon War*, 37-39; Dan Bavly and Eliahu Salpeter, *Fire in Beirut: Israel's War in Lebanon with the PLO* (New York: Stein and Day, 1984), 98. Prime Minister Menachem Begin and Defense Minister Ariel Sharon largely agreed on these initial objectives, but the remainder of the Israeli cabinet did not. The other ministers expected a limited war to create a safe buffer on the border, and saw no reason to attack Syrian forces in Lebanon. During the war, Sharon became a bottleneck of information between the military operation and political cabinet. As a result, the under-informed cabinet expanded military actions.

¹⁰⁴ Gabriel, *Operation Peace for Galilee*, 14.

¹⁰⁵ *Ibid.*, 13-23.

¹⁰⁶ David Eshel, *Mid-East Wars: The Lebanon War, 1982* (Hod Hasharon, Israel: Eshel-Dramit, 1983), 48.

¹⁰⁷ Gabriel, *Operation Peace for Galilee*, 128, 223.

¹⁰⁸ Robertson, *Block by Block*, 217; Shai Feldman and Heda Rechnitz-Kijner, *Deception, Consensus, and War: Israel in Lebanon* (Tel Aviv, Israel: Tel Aviv University, Jaffee Center for Strategic Studies, 1984), 61.

Israel's military, led by Chief of Staff Rafael Eitan, based their strategy around a long-standing plan, code-named "Big Pines." A heavily-reinforced mechanized division would clear the single coastal road through Tyre, Sidon, and up to Beirut. Concurrently, another division would move to secure key road junctions and high ground in the central mountains, while an eastern corps checked the Syrian divisions in the Bekaa Valley.¹⁰⁹ The plan described only forces moving up to Beirut and never mentioned follow-on actions, but Defense Minister Ariel Sharon always intended for partnered Christian militias to provide assaulting ground forces. Additionally, the Israelis intended on cutting the Beirut-Damascus Highway, the major road leading into and out of Beirut but controlled by the Syrians.¹¹⁰ The Israeli cabinet remained largely ignorant of the complete war plan, but Sharon hoped to destroy PLO military capacity, remove Syrian influence from Lebanon along with their SAM missile threat, and force the PLO to accept a negotiated settlement that removed their control of southern Lebanon.

The PLO, led by Yasser Arafat, wanted to maintain their base of operations in Lebanon and gain international recognition from Western powers. By bordering Israel, the PLO could attack settlements, thus gaining further financial backing and legitimacy as the Palestinian representative body.¹¹¹ PLO military strategy supported these goals through guerrilla tactics using their well-equipped force of 23,000 troops. In urban areas, street-to-street fighting would defeat Israeli forces, increase international attention, and frame the PLO as defenders of Palestinians. Throughout the campaign, the PLO wanted to delay defeat in hopes of convincing Arab states to send military reinforcement, and Western states to demand an end to the war.¹¹² The PLO mistakenly believed time was on their side, as no Arab states ever came to their aid.

¹⁰⁹ Schiff and Ya'ari, *Israel's Lebanon War*, 45-48.

¹¹⁰ Feldman and Rechnitz-Kijner, *Deception, Consensus, and War*, 23-24.

¹¹¹ Rashid Khalidi, *Under Siege: PLO Decision Making During the 1982 War* (New York: Columbia University Press, 1986), 110; Gabriel, *Operation Peace for Galilee*, 32, 168.

¹¹² Schiff and Ya'ari, *Israel's Lebanon War*, 133-134.

Syria began the war with three divisions in the Bekaa Valley, and a brigade within Beirut.¹¹³ Syria wanted to avoid war with Israel, but would not withdraw forces that had been stationed in Lebanon for years. Damascus gained regional influence by painting themselves as the one Arab nation standing up to Israel, and believed Lebanon was an extension of their country.¹¹⁴ Additionally, the Bekaa Valley remained a gateway to the Syrian capital, so troops remained to support the PLO, but also extend their defensive belt. As long-standing enemies of Israel, the Syrian military remained a threat to any Israeli operation into Lebanon.

On June 4, 1982, Israel launched Operation Peace for Galilee. Airstrikes targeted PLO positions within West Beirut and southern Lebanon. From June 7th to June 10th, a large air war began and ended, as Israel shot down ninety aircraft and destroyed nearly all the surface-to-air (SAM) batteries.¹¹⁵ Israel kept air superiority throughout the campaign and used this advantage for reconnaissance, close air support, and deep strikes. The Israeli ground forces crossed the border on June 6th in three task forces. In the east, troops advanced towards the Bekaa Valley and outflanked the Syrian divisions, until striking on June 9th alongside air forces. Israel defeated the Syrians through heavy air power and superior maneuver, forcing their withdrawal and securing the army's flank.¹¹⁶ Concurrently, to the west, in the mountains between the Bekaa Valley and the Mediterranean coast, another task force attacked PLO positions. PLO forces fought but largely withdrew northwards, while the Israeli division seized key road junctions. Progress continued until Syrian forces guarding the Beirut-Damascus Highway stopped the advance at Ain Zhalta, twelve kilometers south of the road.¹¹⁷ Nevertheless, this advance protected the army's main thrust up the Lebanese coast towards Beirut.

¹¹³ Robertson, *Block by Block*, 208, 212.

¹¹⁴ Adeed Dawisha, "The Motives of Syria's Involvement in Lebanon," *Middle East Journal* 38, no. 2 (Spring 1984): 228-236.

¹¹⁵ Dupuy and Martell, *Flawed Victory*, 144-145.

¹¹⁶ Gabriel, *Operation Peace for Galilee*, 120-121.

¹¹⁷ *Ibid.*, 95-97.

The operation along Lebanon's single coastal road became Israel's slowest and costliest movement. As Israeli forces in the Bekaa Valley and mountains steadily advanced, the coastal task force suffered ambushes, traffic jams, and heavy fighting. The smaller cities of Tyre and Sidon, with outlying Palestinian camps, became bottlenecks for mechanized forces. Behind a lead armored brigade and heavy preparatory fires, the Israeli army broke through and seized the fortified city of Damour, just eight kilometers south of Beirut's airport.¹¹⁸ Two divisions were now within striking distance of Beirut.

Urban operations within Tyre and Sidon taught the Israelis many hard lessons. On the first day of the ground assault, a lead battalion lost its way and strayed into Tyre, resulting in multiple ambushes, and the capture and execution of the battalion commander.¹¹⁹ Both Palestinian camps outside Tyre and Sidon caused many of the casualties early in the war. Clearing the camps of Rashidiyeh and Burj al-Shemali required an entire division and cost nearly 120 casualties.¹²⁰ Israeli infantrymen discovered their armored personnel carriers could not withstand one hit from a rocket-propelled grenade (RPG) fired at close range within a city.¹²¹ The fighting around the Palestinian camps of Sidon became grueling urban fights which undoubtedly left an impression on Israeli commanders. Here, the PLO held fast, and using their bunkers and fortified buildings, forced the Israelis into a deadly urban assault requiring preparatory bombardments, bulldozers, house-to-house fighting, and direct-fire artillery.¹²² The relatively high casualties, slow progress, and collateral damage demonstrated the infeasibility of an assault into Beirut.

¹¹⁸ Gabriel, *Operation Peace for Galilee*, 87-89.

¹¹⁹ Ibid., 83.

¹²⁰ Khalidi, *Under Siege*, 51.

¹²¹ Bavly and Salpeter, *Fire in Beirut*, 88.

¹²² Schiff and Ya'ari, *Israel's Lebanon War*, 138-148.

The Siege of Beirut

The city of Beirut was a port city, with the Mediterranean Sea on the north and west sides, and foothills surrounding it to the east and south. Splitting the city into an eastern and western section, the Green Line acted as a moat between the two halves of Beirut, and the three crossing points became key terrain.¹²³ Christian militias allied to Israel controlled East Beirut, with the PLO finding refuge amongst the 600,000 inhabitants of West Beirut. Israel's siege lines encircled a twenty-five square kilometer area containing a luxurious seaside district, dense urban areas, a stadium, international airport, industrial parks, and suburbs.

The PLO transformed West Beirut into a fortress. In the downtown, Arafat kept a headquarters and PLO fighters manned bunkers with communications and six months of provisions.¹²⁴ An enormous supply dump took over the stadium and trenches and bunkers extended across the perimeter. The PLO utilized snipers to ambush from buildings, stopped vehicles with minefields, and moved troops with elaborate tunnel complexes.¹²⁵ The multi-story buildings provided effective cover, while the seaside, Green Line, and southern suburbs became impressive barriers.¹²⁶ Furthermore, the PLO understood the Israeli aversion to collateral damage and placed headquarters and weapon systems within or nearby hospitals, mosques, and other civilian areas.¹²⁷ The PLO understood how to leverage the city as a combat power multiplier.

The Israeli military owned the air and sea domains, and on the ground greatly outnumbered the PLO and Syrians. PLO fighters and militia totaled about 12,000. The Syrian 85th Brigade defended the highway and southern outskirts with 2,300 troops.¹²⁸ Israel utilized

¹²³ Robertson, *Block by Block*, 210.

¹²⁴ Gabriel, *Operation Peace for Galilee*, 133, 166.

¹²⁵ Eshel, *The Lebanon War 1982*, 49-51.

¹²⁶ Khalidi, *Under Siege*, 59, 64.

¹²⁷ Robert Fisk, *Pity the Nation: The Abduction of Lebanon* (New York: Atheneum, 1990), 286.

¹²⁸ Dupuy and Martell, *Flawed Victory*, 148.

dozens of sorties per day, naval gunfire along the coast, and up to 50,000 troops with 400 tanks and over 100 artillery pieces.¹²⁹ The anticipated Christian militia forces never materialized except for some checkpoint duty along the Green Line. Instead, the Israeli force found itself heavy on firepower but lacking in infantry capable of clearing urban areas.

Thus, the decision whether to besiege Beirut or assault the city became an easy choice for Israel. The experiences at Tyre and Sidon, lack of sufficient troops, and imposing defenses of Beirut swayed opinion. The possibility existed for an immediate attack onto the city while the defenses remained disorganized, but several reasons disallowed this as an option.¹³⁰ First, the Israeli cabinet learned of troops being as far north as Beirut on June 13th, a few days after the chance for a quick strike materialized.¹³¹ Second, the PLO had already built extensive defenses with great depth, preventing a full seizure of the city. Third, Israel did not have enough forces available. Fourth, an assault would bring troops into direct contact with Syrian ground troops, possibly escalating the war with Syria. And fifth, an immediate assault would not provide an opportunity for civilians to exit the city and avoid the fighting. With no feasibility in immediately assaulting the city and a coordinated ground assault too costly for Israel, the only options were to withdraw or siege the city. There was still domestic pressure, however, to finish the job.¹³² Faced with a failure by receiving too many casualties in an assault, and a failure to achieve the war's goals by withdrawing, the only option left was a siege.

After seizing Damour, Israeli troops maneuvered to seal off Beirut while the cabinet decided on whether to withdraw, siege, or assault. Along the coastal route and suburbs of Beirut,

¹²⁹ Robertson, *Block by Block*, 213.

¹³⁰ Dupuy and Martell, *Flawed Victory*, 151-155. Dupuy and Martell argue that Israel missed a great opportunity to immediately seize the city after reaching the outskirts. They claim Sharon lost his nerve and thus gave the defenders valuable breathing space to beef up their defense.

¹³¹ Bavly and Salpeter, *Fire in Beirut*, 98.

¹³² Gabriel, *Operation Peace for Galilee*, 128-132.

the Syrian 85th Brigade stopped an advance by two Israeli brigades at Kafr Sill and Khaldesh.¹³³ At a key junction south of the airport, lead Israeli forces sent dismounted infantry eastwards to Baabda. Outflanking Syrian ambush positions, the infantry seized Baabda and the key high ground overlooking all of Beirut on June 13th. During the following week, Israeli troops completed the encirclement (except the Beirut-Damascus Highway), exchanged artillery fire with PLO units, and discovered that the Christian militias refused to help.¹³⁴ From the PLO's perspective, securing Baabda indicated the Israelis' seriousness of defeating the PLO in Beirut.

After a relative lull in fighting, the Israelis cut the last remaining exit for enemy forces. From June 22nd to June 25th, ground forces seized high ground around the Beirut-Damascus Highway, cutting off any use of the vital corridor. The Israelis defeated two Syrian brigades and ten commando battalions, forcing their withdrawal eastwards to Damascus. The heavy fighting and use of airstrikes, along with the breaking of ceasefires, angered the United States as Special Ambassador Habib continued pursuing a diplomatic end to hostilities.¹³⁵ However, the Israelis no longer faced a threat of a relief force breaking the siege and had also fully sealed off the city of Beirut. The Israelis made an offer for Syrian forces in Beirut to withdraw to Syria and all PLO to disarm and leave, but Arafat rejected the offer. The ongoing negotiations, led by Habib, continued to work within the diplomatic room for maneuver provided by the siege. A week later, the PLO signaled a willingness to leave Beirut and Arafat signed a letter considering a withdrawal.¹³⁶

In the east, the defeat of Syrian forces provided needed manpower back to the line. On July 3rd, ground forces seized the Green Line. Checkpoints stopped movement of supplies and people, while artillery began targeting PLO artillery further in the city. From this position, Israeli

¹³³ Schiff and Ya'ari, *Israel's Lebanon War*, 184-186, 190-191.

¹³⁴ Gabriel, *Operation Peace for Galilee*, 107-108; Schiff and Ya'ari, *Israel's Lebanon War*, 192-193.

¹³⁵ Gabriel, *Operation Peace for Galilee*, 109-112.

¹³⁶ Khalidi, *Under Siege*, 115-118, 127.

troops massed and then assaulted into West Beirut on August 4th. Progress became measured in meters, and the assault was eventually called off, as the day became the costliest for the Israelis during the entire siege.¹³⁷ Along the southern outskirts of the city, daily bombardment continued while small Israeli units took a few meters of ground each day. On August 1st Israeli troops, backed by heavy firepower, claimed the Beirut airport and outlying suburbs.¹³⁸ Measured ground advances limited casualties, but PLO artillery occasionally hit unfortified positions along Israel's encirclement. A few days later, a new breakthrough in negotiations occurred, and both parties seemed close to agreement.

Simultaneous to ground operations, the Israeli jets, gunships, and artillery struck targets all across Beirut. Focused mostly in the southern areas of the city, the heavy bombardments targeted PLO positions and Palestinian camps. On August 6th, bombardments became much heavier and nearly continuous. These bombardments struck Palestinian camps and PLO targets in multi-story buildings, causing hundreds of civilian casualties. The intensification in bombardments occurred on the same day Arafat announced his decision to evacuate Beirut. Heavy bombardment continued as Habib finalized the details, and negotiations successfully closed on August 12th. That day, however, Israel launched unprecedented intense bombardments across the city, threatening the negotiating process and angering all parties. The final bombardment on August 12th was so intense that the Israeli cabinet pulled decision authorities from Defense Minister Sharon. That evening, a cease-fire marked the end to combat in Beirut.¹³⁹

The siege concluded with a negotiated withdrawal and defeat for the PLO. Habib successfully negotiated the withdrawal of Syrian forces and the entire PLO organization from Beirut. From August 21st to September 3rd, the PLO withdrew from Beirut, to include Yasser

¹³⁷ Robertson, *Block by Block*, 219-221.

¹³⁸ Gabriel, *Operation Peace for Galilee*, 150-151.

¹³⁹ *Ibid.*, 155-158.

Arafat, fighters, and families.¹⁴⁰ Allowed only to keep small arms, the PLO marched out, with Arafat given refuge in Tunisia and fighters dispersed across seven Arab states.¹⁴¹ Multinational forces moved in to oversee the withdrawal and stabilize Beirut. Lebanon held elections and chose Bashir Gemayel, the leader of the Christian militias, as president. Israel's victory seemed secured. However, on September 14th Gemayel was assassinated, plunging Lebanon back into chaos. Israeli troops deployed back into Lebanon, occupied the capital, and began a three-year counter-insurgency operation costing them thousands of casualties and any hope for a peaceful border.

Victory Through Isolation

Degradation of Morale

The Israeli military created a line of effort attacking the morale of enemy forces and their will to fight. Messaging occurred through leaflet drops, radio broadcasts, and other means. Israel crafted messages specific to each factional group within the PLO, and provided testimonials from PLO officers who surrendered to confirm their safe treatment.¹⁴² An advantage in fighting the PLO was their internal divisions and varying goals. Messaging could cause internal disruption, factional fighting, confusion towards end goals, and early surrender of less devoted groups. To apply more pressure, Israel blasted messages with loudspeakers, flew jets low over the city to cause sonic booms, and turned the water supply on and off.¹⁴³ These actions held the additional chance to alienate the PLO from the Beirut residents.

An important aspect of Israeli military and diplomatic operations was to avoid boxing the PLO into a corner. Militarily, the siege allowed Israel to apply pressure as necessary. In the southern outskirts and airport, troops slowly advanced their lines. In the east, Israel's August 4th

¹⁴⁰ Dupuy and Martell, *Flawed Victory*, 177-183.

¹⁴¹ Schiff and Ya'ari, *Israel's Lebanon War*, 227-233.

¹⁴² Phillip P. Katz and R. D. McLaurin, *Psychological Operations in Urban Warfare: Lessons from the 1982 Middle East War* (Aberdeen Proving Ground, MD: 1987), 24-27, accessed 18 September 2020, <https://apps.dtic.mil/dtic/tr/fulltext/u2/a184571.pdf>.

¹⁴³ Bavly and Salpeter, *Fire in Beirut*, 109.

advance demonstrated that the Green Line was no longer sacrosanct.¹⁴⁴ Airstrikes, artillery, and direct fire maintained pressure on the PLO without threatening complete destruction.

Diplomatically, Israel never pursued an unconditional surrender, but instead pursued something more akin to a surrender with honors. The PLO exited Beirut with their small arms and the organization intact. More importantly, Israel allowed Arafat to leave, too. By these methods, Israel avoided a repeat of Sidon's bitter fighting, where leaders called forces to fight to the death.

Defeat of Relief Forces

The Israeli army proved to the West Beirut defenders how hopeless their situation had become. The eventual encirclement of Beirut and withdrawal of the Syrians near the highway swept away hopes for a PLO victory. PLO strategy depended on Israel suffering in street-to-street fighting, but when Israel showed they would not assault, the only hope left for the PLO was Syrian relief forces. The June 22nd to June 25th operation capturing the Beirut-Damascus Highway and defeating the Syrian army positioned east of the city removed any chance for relief.¹⁴⁵ With no relief possible, Arab states became onlookers and the PLO felt militarily and diplomatically isolated.

Bombardment

Opinions still vary on the intensity and effectiveness of Israeli bombardment operations. Media outlets pursued footage of multi-story buildings being hit and aircraft strafing low overhead.¹⁴⁶ Most of the highly visible airstrikes occurred in the southern, Palestinian-inhabited suburbs and refugee camps. On August 12th, as part of the heaviest bombardment, Israel launched seventy-two sorties. Most days had much less – for example, thirty-six on August 9th and only sixteen on the next two days.¹⁴⁷ Considering the inflated “bombing” numbers in media

¹⁴⁴ Dupuy and Martell, *Flawed Victory*, 160.

¹⁴⁵ Bavly and Salpeter, *Fire in Beirut*, 102-103.

¹⁴⁶ Fisk, *Pity the Nation*, 408.

¹⁴⁷ Schiff and Ya'ari, *Israel's Lebanon War*, 223.

reports, it is possible many of these reports mistook artillery fire for air force bombing. Israel used artillery less discriminately, which caused much of the collateral damage.¹⁴⁸ The PLO also controlled heavy artillery and rockets. Artillery duels commonly occurred and on average the PLO fired 500 to 1,000 rounds daily.¹⁴⁹ Overall, PLO fighters on the outskirts and their families in the camps experienced steady effects from the bombardment, but most PLO leaders within downtown bunkers experienced little effects.

Israeli troops preceded every advance with airstrikes and artillery attacks that caused some tactical effect or degradation of PLO morale. However, PLO fighters made new fighting positions in building rubble and had exceptional tunnel networks for safety. Indiscriminate shelling or high-profile strikes in downtown Beirut hurt negotiating efforts and increased foreign pressures for ceasefire. An airstrike on PLO headquarters buildings proved ineffective, and appeared on television as bombs dropping onto civilian buildings with no clear military target.¹⁵⁰ Bombardment in support of front-line advances or limited strikes on PLO fighting positions were overall effective and worthwhile in proportion to the military advantage gained. However, the Israelis conducted many strikes which hurt the important negotiation efforts or caused excessive damage and credibility loss for little military gain.

Physical and Psychological Isolation

Israel's encirclement of Beirut provided the means for control of the city. Beirut inhabitants could leave the city, which improved Israel's moral position, safeguarded civilians, and reduced the chances for collateral damage. Over 100,000 civilians left Beirut during the siege, but guards loosely controlled checkpoints.¹⁵¹ Various professionals, including media, were

¹⁴⁸ Gabriel, *Operation Peace for Galilee*, 160-163.

¹⁴⁹ Sami Al-Banna, "The Defense of Beirut," *Arab Studies Quarterly* 5, no. 2 (Spring 1983), 108, accessed 14 September 2020, <https://www.jstor.org/stable/41857863>.

¹⁵⁰ Khalidi, *Under Siege*, 64-65.

¹⁵¹ Bavly and Salpeter, *Fire in Beirut*, 102.

allowed in and out of the siege lines, and police and guards traded or smuggled goods into the city. At various points, Israel cut food, water, and electricity into the city.¹⁵² However, the loose siege lines did not support any subsequent morale loss to the PLO. The cutting of food, water, and electricity not only caused international condemnation, but also proved ineffective. The PLO had stockpiled six months of provisions and as the armed force within the city, could obtain any goods needed before inhabitants received supplies. Because the PLO had food stocks, access to wells, and generators with fuel, the only residents who suffered were the civilian inhabitants.¹⁵³ The messaging opportunities gained by the PLO greatly outweighed any advantage from cutting basic humanitarian needs.

Beirut never experienced informational or psychological isolation. While airstrikes destroyed or disrupted some local military communications, the PLO still had incoming and outgoing communication to the outside world.¹⁵⁴ Journalists interviewed PLO fighters and leaders, and broadcast these stories worldwide. The Israelis destroyed the satellite transmitter inside West Beirut, but reporters drove their footage through the siege lines to Tel Aviv or Damascus to broadcast the footage.¹⁵⁵ These open communication lines also enabled the PLO to receive news. Detrimental effects of a news blackout would have reduced PLO confidence in relief or Arab support, and induced fracturing amongst the many PLO groups.

Managing the Seven Risks to Urban Operations

Inadequate Force Strength

Israel solved their troop shortage by leveraging the strengths within their military to compensate for shortages in troops. While the total number of troops outnumbered the PLO and Syrians, Israel lacked enough infantry equipped and trained for urban combat. Instead, their army,

¹⁵² Gabriel, *Operation Peace for Galilee*, 142.

¹⁵³ Robertson, *Block by Block*, 213.

¹⁵⁴ Khalidi, *Under Siege*, 70.

¹⁵⁵ Bavly and Salpeter, *Fire in Beirut*, 138.

built for maneuver warfare, excelled in mobile firepower – tanks, artillery, strike aircraft, and attack helicopters. These strengths enabled the Israelis to reduce manpower requirements. Heavy firepower backed Israeli ground assaults and achieved specific objectives, such as the airport, instead of a general advance into Beirut. Critical attacks early in the siege reduced the encirclement size to just twenty-five square kilometers by seizing key terrain at Baabda and the Green Line. Finally, destroying the Syrian forces along the Beirut-Damascus Highway removed the need for an army of observation. These operational decisions avoided sparsely-manned siege lines.

Information Operations

The dramatic siege of Beirut became a story told by the besieged, with little effort given to shape the story towards Israel's version of events. From the beginning, the PLO welcomed favorable reporters, while Israel banned journalists from joining front-line troops.¹⁵⁶ The international media wanted to tell the story, but received only one perspective. Daily press briefings describing the day's air strikes and operations may have reduced some of the outlandish statistics about bombs dropped, civilians killed, and refugees displaced. Without context and the repeated reminder of why Israel considered the PLO an enemy, footage of aircraft bombing downtown Beirut seemed exorbitant. Without aircraft footage showing the military target engaged or a daily condemnation of PLO tactics, Israel left the media to draw their own conclusions.

Although better options existed, Israel chose to censor war reporting, but failed to operationalize this effort. Stricter control of siege lines should have prevented journalists from re-entering Beirut or sending out camera footage. Communications continued in Beirut, allowing the PLO to release press announcements. The greatest mistake for Israeli information operations was the disconnect between negotiation efforts and military operations. The major assault across the

¹⁵⁶ Bavly and Salpeter, *Fire in Beirut*, 136-141.

Green Line occurred just two days before negotiations made a major breakthrough, angering the United States. And the heaviest bombardment of the siege on August 12th occurred the same day as negotiations concluded. Defense Minister Sharon's bottlenecking of information disconnected the military campaign from the diplomatic campaign. As a result, Israeli information operations suffered alongside the damaged diplomatic efforts.

Increased Military Casualties

Israel learned from Tyre and Sidon, and avoided mass casualties from a full-scale assault of Beirut. Besides the failed general assault on August 4th, Israeli troops successfully used the "salami strategy" of moving only a few meters at a time over a long period.¹⁵⁷ This limited troops in contact and allowed detailed coordination with tanks and artillery. In the eleven opening days of maneuver warfare, Israel lost 214 killed and 1,176 wounded, but during the thirty-nine days of siege operations they lost only eighty-eight killed and 750 wounded.¹⁵⁸ The siege operation figures include the eighteen killed and seventy-six wounded in the assault of August 4th.¹⁵⁹ Most casualties during this assault occurred along the built-up areas of the Green Line. Troops found more success in the less-dense southern suburbs and airport where forces practiced the "salami strategy." A benefit of establishing the siege lines further south of the city than anticipated was it gave the Israeli military easier ground to methodically advance through. These advances across open ground cost the Israelis few casualties, but demonstrated resolve and increased pressure on the PLO. Assaults through dense urban areas along the Green Line gained little and verified the expected difficulty of a full-scale assault.

Unavoidable Collateral Damage

Beirut suffered civilian casualties and extensive damage to buildings, but the siege operation spared much of the city and allowed civilians to escape. The Israeli air force conducted

¹⁵⁷ Gabriel, *Operation Peace for Galilee*, 142-143.

¹⁵⁸ Dupuy and Martell, *Flawed Victory*, 136; Gabriel, *Operation Peace for Galilee*, 167.

¹⁵⁹ Bavly and Salpeter, *Fire in Beirut*, 108.

only forty sorties within the northern sections of West Beirut during the siege.¹⁶⁰ Over 250,000 inhabitants left Beirut.¹⁶¹ The slow advances, close contact with the PLO, precision strikes, and small ground actions helped limit collateral damage. As seen with assaults around Tyre, Sidon, and the Green Line, Israeli forces depended on firepower to advance through city streets. A full-scale assault through Beirut would have affected a much broader swath of the city and prevented civilian escape. The PLO tactics of hiding behind noncombatants, increased contact with civilians, and a dependence on firepower would have caused greater collateral damage during an assault. Israeli forces avoided potential collateral damage events by choosing to lay siege to Beirut instead of assault through the city.

Lack of Time and Loss of Momentum

The Israeli military gained time for the urban operation by diplomatically isolating the PLO, limiting the escalation of combat, and opening negotiations. No Arab states or the Soviet Union responded to the PLO requests for assistance. Intervention by these actors risked war with Israel and would damage US relations. By limiting the escalation of combat in Beirut, Israel maintained US backing for operations. While the United States disapproved of select actions, Israel held enough diplomatic clout to weather temporary setbacks in relations. Had a full-scale assault occurred, US and domestic pressure would have greatly reduced the time available for an operation. Lastly, the early start of negotiations and continued dialogue gave time to Israel by increasing their legitimacy and demonstrating progress towards peace. The siege operation allowed negotiations to progress by controlling operational intensity. Without negotiations, the siege would signal unconditional surrender or complete destruction as Israel's objective. Instead, negotiations showed PLO allies that they had a way out, and eased Israeli allies' fears of escalating war.

¹⁶⁰ Gabriel, *Operation Peace for Galilee*, 160-166.

¹⁶¹ Robertson, *Block by Block*, 227.

Israeli forces experienced an early loss of momentum just south of Beirut, but the siege operation provided sufficient pressure to maintain tempo. Without a political decision for the campaign's next steps, the Israeli army poorly transitioned from maneuver warfare up the coast to an encirclement and siege operation. Israel's central task force remained out of position to isolate Beirut, and the coastal task force lacked a clear plan to move forces quickly into position. This setback, understandable considering the difficult political decisions required, resulted in little overall loss. Once transitioned to siege operations, the initiative remained with the Israeli forces and firepower maintained an appropriate tempo towards PLO defeat.

Increased Vulnerabilities

The Israeli army entered the First Lebanon War built for armored warfare in open desert. An assault into Beirut would have exposed Israeli inexperience with urban combat, vulnerability of vehicles to RPGs, and difficulty in leveraging firepower. However, the Israeli army was also inexperienced in besieging large cities. Although choosing a siege removed the most significant vulnerabilities inherent to urban combat, one new vulnerability emerged. During the siege, Israeli troops suffered more casualties from artillery fire than during the entire operation in southern Lebanon.¹⁶² Engineers fortified some positions along the siege line, but these protection efforts were not as extensive as historical sieges. On July 11th, PLO rockets caused a massive explosion after striking an ammunition dump.¹⁶³ On August 4th, artillery struck two positions, killing thirteen and wounding twenty-five. Elaborate, prioritized engineering efforts along the siege lines would have significantly lowered the siege's casualty costs.

Destabilizing Escalation

A continuous threat in the background of every decision was escalation towards Cold War conflict. With the United States backing Israel, and the Soviet Union backing the PLO and

¹⁶² Gabriel, *Operation Peace for Galilee*, 163.

¹⁶³ Fisk, *Pity the Nation*, 298.

Syria, escalation became a serious concern. By assaulting Beirut, Israel would find itself occupying the city and risking a major escalation of the war.¹⁶⁴ An assault would also mean unavoidable combat with Syria's 85th Brigade, risking further escalation and Soviet intervention. Intense ground combat and greater collateral damage also risked damaging international opinion and further pressuring Israel to end the war. Instead, the siege provided diplomatic maneuver room for all parties and offered Arafat an acceptable withdrawal.

Conclusion

Strategic Considerations

For both the siege of Paris in 1870-1871 and Beirut in 1982, military commanders faced decisions and circumstances similar to today. The urban terrain became a sanctuary for defenders and negated many of the advantages of the attacker. Politicians and international opinion pressured campaigns to conclude quickly. The attackers lacked enough troops with urban training and equipment. The defenders hoped the attackers would launch a full-scale assault. Attacking armies built around operational maneuver warfare could no longer bypass a city containing the primary enemy force. Likewise, withdrawal meant political defeat. Either a full-scale assault or siege operation would defeat the enemy. The characteristics of the OE and campaigns are similar to the emerging OE the US Army faces today.

The first strategic consideration is the United States' choice to field quality troops over quantity of troops. As of 2020, the army total force has forty-two infantry or Stryker brigade combat teams.¹⁶⁵ Using a ratio of five-to-one, an enemy army composed of nine brigades could be too large for the entire US Army combat force to clear from a city. While urban terrain sieges may take large amounts of troops, urban terrain assaults will take larger amounts of troops, *and*

¹⁶⁴ Robertson, *Block by Block*, 215.

¹⁶⁵ US Army Public Affairs, "Army Announces Conversion of Two Brigade Combat Teams," United States Army, September 21, 2018, accessed 14 September 2020, https://www.army.mil/article/211368/army_announces_conversion_of_two_brigade_combat_teams.

these troops should have specialty training and equipment. The US Army has no large formations of troops specialized in urban terrain or even robust schooling such as that for airborne operations or mountainous terrain.¹⁶⁶ The 2017 RAND report entitled, “Reimagining the Character of Urban Operations for the US Army” summarily stated, “its experience in Iraq notwithstanding, the army is not ready to fight in urban combat.”¹⁶⁷ The overall small US force size and lack of training for large-scale urban combat means the US Army will struggle to conduct modern urban assaults.

Future US urban operations are unlikely to exclude partnered forces. Indeed, the experience in Iraq points to the significant force contributions of local forces. For the 2008 operations in Sadr City, Iraqi Security Forces provided three brigades of troops. However, these troops were labeled a “checkpoint army” and not very capable of combined arms assaults into urban terrain.¹⁶⁸ Instead of providing the manpower for the clearance of a city, partnered forces could provide much needed manpower for the isolation of a city.

The second strategic consideration for planners is the US domestic audience and military repeatedly aspiring to few US casualties and low collateral damage. The American soldier is an expensive investment. A Congressional Budget Office report examined military personnel costs from 2000 to 2014 and concluded that not only was twenty-six percent of the budget devoted to military personnel costs, but personnel cost was the fastest growing portion of the budget.¹⁶⁹ Combined with casualty medical costs, the US military and economy would struggle to accept large casualty figures. In his article “The Indirect Approach: How US Forces Can Avoid the Pitfalls of Future Urban Warfare,” former US Army major general and author Robert Scales

¹⁶⁶ John Spencer, “The Army Needs an Urban Warfare School and it Needs it Soon,” Modern War Institute at West Point, April 5, 2017, accessed 14 September 2020, <https://mwi.usma.edu/army-needs-urban-warfare-school-needs-soon/>.

¹⁶⁷ Gentile, Gian et al., *Reimagining the Character of Urban Operations*, xiii.

¹⁶⁸ Johnson, *The 2008 Battle of Sadr City*, 27-32.

¹⁶⁹ Congressional Budget Office, “Growth in DoD’s Budget from 2000 to 2014,” Congressional Budget Office Reports, November 2014, accessed 14 September 2020, <https://www.cbo.gov/sites/default/files/113th-congress-2013.2014/reports/49764-MilitarySpending.pdf>, 1-2.

agrees by adding that the American public has little stomach for excessive casualties in future wars.¹⁷⁰ Additionally, he argues there is a trend towards restraint, and the American public would not tolerate extensive damage of a city or significant civilian casualties. JP 3-06, *Urban Operations*, notes, “The majority of urban battles since 1967 have had one or more of the following constraints or restraints imposed on the forces engaged: limiting friendly casualties; minimizing civilian casualties and/or collateral damage; or restrictions in the use of ground or air weapons.”¹⁷¹ In considering whether to conduct offensive maneuver into a city, the historically high casualties and collateral damage of assaults may support alternative operational approaches.

Siege operations can adopt a reputation as incompatible with the law of armed conflict. Historical siege operations have utilized mass bombardment or starvation in certain conflicts or deliberately targeted non-combatants during or after the operation. For these reasons, siege operations have gained notoriety and a reputation antithetical to international and US standards. However, siege operations are legal and can function while conforming to the law of armed conflict. US Army manual FM 6-27, *The Commander’s Handbook on the Law of Land Warfare*, explicitly permits siege operations.¹⁷² When besieging cities, however, attention must be given to particular imperatives. First, the separation of combatants from non-combatants is a continuous requirement. Second, the principles of distinction and proportionality often apply to siege methods.¹⁷³ For example, FM 6-27 states starvation is an allowable technique but it must distinguish who is being targeted.¹⁷⁴ If US forces expect combatants to prioritize the survival of

¹⁷⁰ Scales, “The Indirect Approach,” 5.

¹⁷¹ US Joint Staff, JP 3-06, I-6.

¹⁷² US Army, FM 6-27, 2-17.

¹⁷³ *Ibid.*, Glossary. Distinction is defined as the LOAC principle that obliges parties to a conflict to distinguish between combatants and the civilian population and to distinguish between military objectives and protected property and places. Proportionality is defined as the LOAC principle requiring combatants to refrain from attacks in which the expected loss of civilian life, injury to civilians, and damage to civilian objects would be excessive in relation to the concrete and direct military advantage expected to be gained.

¹⁷⁴ *Ibid.*, 2-22.

troops before local non-combatants, then the deliberate restriction of basic survival supplies may lead to disproportionate effects. Therefore, unless US forces can achieve the unlikely aim of removing enough non-combatants from the besieged area to achieve proportionality, starvation is an unacceptable technique. A more agreeable approach would be the deliberate restriction of military necessities that will not disproportionately endanger human life – communications, fuel, ammunition, equipment, and other related supply.

The ongoing objective of separating non-combatants from combatants will assist besiegers from the tactical to strategic levels of war. Non-combatants must be encouraged and assisted in leaving the besieged urban area. Beyond current US law and regulations, the international definitions and expectations of siege operations are significantly lacking. Interpretations are both more and less restrictive than modern operational examples.¹⁷⁵ The contentious nature of siege legality means US forces should maintain a line of effort for clear, deliberate, and publicized removal of non-combatants from the besieged area to maintain legitimacy and control the information space.

Finally, in large-scale combat operations, the threat of escalation must be controlled when facing peer adversaries or those possessing weapons of mass destruction. The current doctrinal approaches, focused on offensive maneuver into the urban areas, bring friendly forces into close combat with adversaries. The intense media coverage could spark passionate escalations from national leaders, compounded by high casualty figures and the stagnated geographic advancement that street-to-street fighting produces. Alternatively, a siege operation which may lengthen campaign time but avoid large-scale close combat would ease escalatory incidents and produce more opportunities for diplomatic off-ramps to conflict termination.

¹⁷⁵ Emanuela-Chiara Gillard, “Sieges, the Law, and Protecting Civilians,” Chatham House, June 27, 2019, accessed 14 September 2020, <https://reader.chathamhouse.org/sieges-law-and-protecting-civilians#>; Sean Watts, “Humanitarian Logic and the Law of Siege: A Study of the *Oxford Guidance* on Relief Actions,” *International Law Studies* 95 (2019), accessed 14 September 2020, <https://digital-commons.usnwc.edu/cgi/viewcontent.cgi?article=1728&context=ils>.

The strategic considerations for the United States run counter to modern urban doctrinal methods and the emerging urban OE. Future peer adversaries operating in urban terrain may generate a strategic loss for the United States if destruction by offensive maneuver is the only defeat mechanism considered by operational planners. Urban operations are increasing in likelihood, scale, and risk. If appropriately considered as a complex operation over time, or even standalone campaign, a siege offers more opportunities to employ operational art than what current US doctrine demonstrates.

Lessons for Modern Siege Operations

The German and Israeli operations showed how the siege reduced risk while still achieving the outlined political objectives. Together, both operations provided key takeaways for reducing the seven specified risks of urban operations in ATP 3-06. Germany and Israel had inadequate force strength for an assault, but found besieging the city feasible. In both cases, the attackers constantly reorganized forces towards problem areas, seized key terrain early, and used firepower to bolster thin lines. Weaker allied troops, such as the Saxon troops and Christian militias, manned safer sections of the line to free up quality troops. Germany also employed exceptional engineering efforts, such as flooding potential sally points and destroying bridges, to further reduce troop requirements. The risk of enemy information operations lessened in importance during both campaigns, because the sieges avoided destructive combat. Untold military casualties, civilian deaths, and collateral damage would have resulted from assaults destroying the enemy forces inside Paris and Beirut. The sieges allowed Germany and Israel to leverage their military's strengths, and to avoid the street-to-street fighting essential for a French or PLO victory. Assaults into either city would have bogged down the attackers, requiring more troops, time, and firepower to regain the initiative. However, the Germans and Israelis owned the initiative throughout the campaigns. The sieges used firepower, information operations, and physical isolation to maintain momentum, not maneuver. Both operations clearly demonstrated

how the siege reduced risk and likely avoided defeat had the attackers chosen different courses of action.

Each case study provided lessons on effective and ineffective use of isolation as the defeat mechanism. Since US Army doctrine lacks specifics, the common successes between the two case studies provide a starting point for building standard methods of isolation. The first shared success came from developing a feeling of hopelessness amongst the besieged. To achieve this cognitive effect, Germany and Israel made one key operational decision - both attackers refused to engage the enemy in bloody street battles. The French and PLO lost any reason to continue fighting as their respective attackers would not accept their preferred type of battle. Next, the attackers identified sources of hope to the defender. Outside news, relief armies, foreign diplomatic intervention, and sally attacks were the defenders' significant sources of hope. A military planner could consider these decisive points, and align them along a line of effort to build hopelessness and drive the defenders towards negotiated settlement.

The second shared success was maintaining pressure from a position of relative advantage. The transition from maneuver to siege operation became essential to follow-on efforts. Both attackers captured key terrain in the opening siege battles to force the enemy to come to them. The transition and superior positioning then enabled firepower and psychological operations to provide momentum. Thus, the besieger dictated the operation's tempo with little influence from the defender.

The third shared success was a concentration of combat power at the operational level. Both siege armies lacked overwhelming manpower. By defeating potential relief armies early, both Germany and Israel avoided the need for a separate Army of Observation. This prioritization temporarily left thinly-manned lines, but paid long-term dividends. Firepower and constant reorganization of forces allowed fewer men to control greater areas of the encirclement. The designated decisive operation and shaping operations alternated throughout each operation based on the negotiation process and greater theater developments.

The fourth shared success was a steady reduction in enemy strength. Germany focused on defeating every French sally and bombardments destroyed minor fortresses and buildings, crossing sites, and front-line defenses. Israel used precision bombardment in depth and a creeping “salami strategy” to degrade the PLO over time. With superior firepower and positions, the attackers maintained a deadly front-line which whittled the opponent down. All four of these shared successes echoed the methodology seen across the history of siege warfare.

In defeating the enemy by isolation, the two case studies highlight points of failure as well. General bombardment of the city and pursuing starvation of the inhabitants were ineffective and harmful. Both tactics not only failed in their aims, but also created detrimental effects towards the strategic ends of negotiated settlement. In both Paris and Beirut, deliberate bombardment against identified military targets proved successful. However, once bombardment targeted disproportionately civilian areas, the strikes did little militarily and greatly increased the defender’s resolve. Beyond these failures, the disproportionate bombardments escalated the chances for foreign intervention and delayed negotiated settlements. Starvation also proved ineffective. Both defending forces remained better provisioned than the civilian populace, thus causing much harm to civilian populations before any harm came to military troops. In Paris, the stark differences between rich and poor civilians is also noteworthy. Wealthy civilian leaders capable of influencing military defenders to capitulate are distanced from starvation’s effects.

Furthermore, both cities proved capable of provisioning the defenders for long periods and beyond the besieger’s estimations. What did run out was goods beyond basic supplies. Cutting access to non-essential goods may still prove beneficial from a psychological standpoint. However, cutting off food to the cities provided negligible military advantage and invited harsh rebuke from international audiences. Lastly, both operations exhibited disconnect between military and diplomatic efforts. While strategy aligned towards achieving negotiated settlements, in both operations, the military actions often harmed this objective. Germany and Israel suffered from disconnected personalities at the highest military and political levels. Improved coordination

and sequencing of military operations to diplomatic aims may have shortened each campaign. Major operations such as defeat of a relief army or heavy bombardment should precede negotiations to capitalize on degraded morale. Likewise, besiegers must be wary of creating perceptions that the defender's top leadership have no viable resolution. If dishonorable surrender or complete destruction are the only options, then defenders will force an eventual clearance of the city. Both Germany and Israel offered enough concessions to compel a negotiated settlement.

Building Doctrine for Siege Operations

US Army doctrine should include the option to besiege a city. Within ATP 3-06, *Urban Operations*, siege operations would provide an additional framework to defeat adversaries inside urban terrain. Commanders should understand siege operations as holding the primary benefit of trading time for lowered risk. As doctrine incorporates sieges, the encirclement tactical mission task described in FM 3-0 provides a starting point. Guidance on task organization, cognitive effects, maintaining initiative, targeting, and investment would provide commanders and staffs basic considerations for conducting successful sieges. However, urban doctrine must move beyond tactical encirclement of small cities and prioritize the convergence of multiple efforts and domains to defeat an enemy within a city. Siege doctrine must be adaptable to all city sizes and from tactical to operational levels of war. For example, the doctrine should describe the need for elaborate troop protection along the investment line, but also the extended logistics lines necessary for a siege. Finally, considering the modern stigma surrounding the term "siege," alternative terminology would appropriately articulate the method without negative messaging.

A key component to siege operations is the use of isolation as the defeat mechanism. US Army doctrine should incorporate vignettes and techniques to develop military proficiency in using this powerful defeat mechanism. Ideally, just as destruction has standard forms of offensive maneuver, isolation should have standard forms. This will broaden commanders to measure effectiveness in an urban operation through other means than just geographic advancement.

Additionally, doctrine should describe the convergence of effects towards achieving defeat through isolation. Both Germany and Israel destroyed through methodical maneuver, degraded via targeted bombardments, and isolated across all the domains. Both attackers found the most success when they operationally synchronized multiple efforts to achieve enemy capitulation.

The history of siege warfare is vast, and future research should continue exploring the topic. More recent siege operations may highlight trends within information operations, and newer domains such as space and cyber. Sieges of coastal cities may offer more insight into naval operations, and megacities invite deeper study of feasibility. Within US Army doctrine, there is limited detail on methods for defeating an enemy via isolation. Further study of methods that are effective at compelling surrender would benefit US Army operational concepts. Finally, a broader study of siege concepts within international doctrine and practice would better inform the US Army on trends and alternatives.

The divergence of siege concepts from the US Army's desired maneuver warfare may be too great. Siege operations may find limited opportunities for employment considering the US military's culture and expectations of the American public and political leadership. However, the emerging OE and rising likelihood of urban operations may compel US Army leaders to seek new methods of warfare. A failure to do so will invite failed urban operations or an unacceptable loss of life. The future solution may lie in the past. Reimagining historical siege operations for the 21st century will provide the US Army viable alternatives for defeating threats in urban terrain.

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