

Operational Art in the Megacity

A Monograph

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Abstract

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This monograph examines the practice of operational art within the urban operational environment and the implications on operations inside future megacity campaigns. It highlights shortfalls that exist in US Army and Joint doctrine as applied to a megacity when taking account for the immense complexity therein. It uses the 1994 Battle of Grozny in Chechnya to illustrate some of the challenges involved at the operational level and how improper use of operational art leads to failure. It also uses the 2004 Battles of Fallujah as an example of initial improper use of operational art and the subsequent success achieved through proper application and execution of operational art in a large urban environment. It uses these two case studies to highlight specific elements of operational art which are critical to understand and execute inside of a megacity to achieve success; namely basing, operational reach, arranging operations and tempo. It concludes with recommendations to leaders and practitioners as to the best uses of these elements of operational art and their most efficient application to future conflict within megacities.

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Acronyms

ADP	Army Doctrine Publication
ATP	Army Techniques Publication
ATTP	Army Tactics, Techniques, and Procedures
FM	Field Manual
I MEF	I Marine Expeditionary Force
JFC	Joint Forces Command
JIPB	Joint Intelligence Preparation of the Battlefield
JP	Joint Publication
LSCO	Large-Scale Combat Operations
RCT	Regimental Combat Team

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Introduction

It is inevitable that at some point the United States Army will be asked to operate in a megacity and currently the Army is ill-prepared to do so.¹

— Army Chief of Staff's Strategic Studies Group, 2014

While urban combat operations are not new, a megacity presents old challenges at previously unimaginable scale and complexity.²

— COL (R)Kevin M. Felix and LTC Frederick D. Wong

We long for gallant struggles in green fields, yet the likeliest battlefields are cityscapes where human waste goes undisposed, the air is appalling, and mankind is rotting. Before it might have been jungles and mountains but now cities are the citadels of the dispossed and irreconcilable.³

— Ralph Peters

As of this writing, there are thirty-one cities in the world classified as megacities with that number expected to reach forty by 2030. A megacity is an urban area containing more than ten million inhabitants.⁴ The most developed megacities are Tokyo, Delhi, and Shanghai. These developed urban centers provide a functioning political, social, and economic systems that maintain a semblance of order and security. Further analysis shows that by 2050, 70 percent of the world's population will live in cities, with as much as 85 to 90 percent of urban population growth occurring in slums.⁵ These developed urban masses pose a myriad of operational issues to a ground maneuver force. Indicative of these complex environs are cities such as Lagos, Dhaka, and Sao Paulo. It is these areas where militaries face the effects of size, overcrowding, pollution,

¹ Marc Harris et al., "Megacities and the United States Army: Preparing for a Complex and Uncertain Future" (Report, Strategic Studies Group, Megacities Concept Team, Arlington, VA, May 2014), accessed 21 January 2019, <https://www.army.mil/e2/c/downloads/351235.pdf>.

² Kevin M. Felix and Frederick K. Wong, "The Case for Megacities," *Parameters* 45, no. 1 (March 2015): 20.

³ Ralph Peters, "Our Soldiers, Their Cities," *Parameters* (Spring 1996): 43-50.

⁴ Merriam-Webster Dictionary, s.v. "Megacity" (Springfield, MA: Merriam-Webster, 2019).

⁵ Christopher O. Bowers, "Future Megacity Operations—Lessons from Sadr City," *Military Review* (May-June 2015): 8-16.

overwhelming poverty, a disintegrating infrastructure, and crime. A natural assumption is where the people go, so goes the conflict, war takes place among the people. With the current trend of population migration to dense urban areas (especially along the littorals) added to the inherent economic and governmental instability in national and local governments there, areas of urban sprawl present a significant and growing threat to regional and global security.

A 2014 Army Strategic Studies Group report, *Megacities and the United States Army* identifies that “Each day, an estimated 180,000 people across the globe migrate to cities. . . . By 2030, cities will account for 60 percent of the world’s population.”⁶ The resulting potential conflict from this migration is worrisome as the economic and cultural importance of these areas grow worldwide. The odds of US involvement or intervention grow alongside them. The same Strategic Studies Group report identified this problem as a quickly emerging threat. The report states that “it is inevitable that at some point the United States Army will be asked to operate in a megacity and currently the Army is ill-prepared to do so.”⁷

If the US armed forces are not able to meet this emerging threat, what steps can be taken to achieve adequate preparation? The impetus lies with commanders and staffs in divisions and higher. It is by applying the elements of operational art that divisions and corps achieve success by sufficiently setting the conditions for Large-Scale Combat Operations (LSCO) on the battlegrounds of a megacity. The topic of impending urban operations is significant to current and future US Army and Joint operations. The US military must undertake more detailed analysis to understand the specific complexities of a megacity at echelons above brigade. The new and

⁶ Harris et al., “Megacities and the United States Army,” 2.

⁷ Ibid., 8.

evolving source of insecurity that differs from previous urban combat is the rapid growth of megacities worldwide.

Where can leaders and planners go to formulate such a framework? This monograph proposes that both superseded and current US Army and Joint doctrine provide a firm start point. Additionally, research of Soviet and Russian doctrine and experience provide input to laying the groundwork for leaders to succeed in LSCO in urban terrain. Our successes and failures, and those of our allies and adversaries, can help shape our understanding of how to properly approach the megacity problem.

Instances of urban combat exist throughout recorded history. During the Battle for Mexico City, then Major Ulysses S. Grant occupied a church overlooking the San Cosme Garita by force. There he ordered his men to emplace a howitzer in the belfry to support infantry maneuver during the attack.⁸ During the Battle of Sedan, Bavarian soldiers storming the city met fierce resistance through alleys and houses, taking fire by French defenders and armed civilians from all angles.⁹ The twentieth century, from World War I to the wars in Iraq and Afghanistan are rife with examples of urban operations on every scale. History shows, therefore, that planning for urban operations is essential to the success of future military operations. The trend toward littoral urbanization points to conflict at all levels, from stability operations to large-scale combat.

The US military must build upon it's experience and knowledge base to ensure victory. Stalingrad is the preeminent battle that comes to mind in any conversation about the urban fight. Involving the largest concentration of forces, and the highest number of casualties, its strategic outcome was vital to the subsequent Soviet victory on the eastern front. Stalingrad represents Soviet skill in planning, intelligence, and adaptation to the urban operating environment.

⁸ Timothy D. Johnson, *A Gallant Little Army: The Mexico City Campaign* (Lawrence, KS: University Press of Kansas, 2007), 235-36.

⁹ Geoffrey Wawro, *The Franco-Prussian War: The German Conquest of France in 1870-1871* (Cambridge: Cambridge University Press, 2010), 213.

Simultaneously, it brought to the forefront lack of imagination and incompetence of senior German leaders and serves as a classic example of urban fighting. The sheer scale of operations in the German's attack on Stalingrad and the subsequent Soviet counter-offensive that annihilated the German Sixth Army is the closest any military action has come to megacity proportions. The campaign involved over 1 million combatants, 250,000 Axis Power casualties, an unknown number of Soviet casualties, and seven months of intensely horrific combat.¹⁰ To recognize Stalingrad's importance in urban warfare and its relation to a megacity construct is important. However, this monograph focuses on more contemporary conflicts to place the added levels of complexity inside a megacity environment in their proper context.

This monograph asserts that the division is the echelon of primacy for the urban environment yet may not be enough in a megacity operation. The division is the lowest echelon organization best suited to apply an urban operational framework, but the sheer size of a megacity necessitates much more in terms of combat power. Increased lethality, tempo, sequencing, and size of activities are all inherent characteristics in large-scale combat. The nature of LSCO and the attributes of megacities require organizations to conduct offensive, defensive, and stability operations simultaneously. The division is best suited for this role.

Though megacities present especially unique challenges in the conduct of warfare in urban terrain, examination of past actions in cities that do not meet the criteria of a megacity can offer insight and provide a start point into these challenges. To find supporting evidence to test this hypothesis, the battles of Grozny and Fallujah serve as suitable case studies to examine. This

¹⁰ Antony Beevor, *Stalingrad: The Fateful Siege, 1942-1943* (New York: Penguin Books, 1998), 439-40; Jochen Hellbeck, *Stalingrad: The City That Defeated the Third Reich*, trans. Christopher Tauchen and Dominic Bonfiglio (New York: Public Affairs, 2015), 1-5.

study relies on the following research questions to fully explore the implications of fighting in a megacity:

1. What elements of Operational Art are especially important when planning, preparing and executing operations in the urban environment?
2. What can the success and failure of US and other combatants inform us about the complexity of urban terrain and how can that be applied to a future megacity fight?
3. What are problems presented by megacities not addressed in doctrine or lessons learned from our case studies?

The research and analysis for this monograph focus on operations at echelons above brigade and is therefore limited to relevant division and corps size organizations and their related doctrine. To analyze applicable doctrine and case studies, research conducted for this monograph includes sister service, allied, and adversary doctrine. In regards to adversary doctrine and material, a lack of access and classification requirements preclude total access to vital doctrinal publications and documentation.

To provide relevant recommendations, a primary source qualitative analysis of US Army and Joint doctrine is necessary to determine whether the framework for large-scale urban operations is appropriate for megacity operations. Also, a qualitative study of partnered nation doctrine, both current and superseded, is needed to determine if any allied nation doctrine provides an appropriate framework assisting in the formation of a suitable base for a US doctrine. Furthermore, research and analysis on important adversary doctrine as well as tactics, techniques, and procedures as it pertains to divisional operations in a megacity type environment is required. These areas will lay the foundation for a historical perspective to the argument.

Case study research will focus on identifying and characterizing the friction and inherent problems affecting division commanders and staffs when implementing operational art in such a complex environment. Case studies of Grozny and Fallujah provide the critical insight necessary to identify past success, failure, and apply lessons learned to future US Army LSCO operations. The 1994 to 1995 Battle of Grozny is next reviewed to analyze modern urban operations and the

failure of Russian leaders to plan and execute LSCO with an operational art outlook. Next, the 2004 Battle of Fallujah provides relevance to today's US Army and specific lessons learned through the success and failures of US leaders when implementing operational art. Both case studies can also offer proper insight into aspects of a megacity fight which doctrine fails to address.

Doctrinal Analysis

The appropriate starting point for a US doctrinal review is the recently published capstone document *Field Manual (FM) 3-0, Operations*. In a manual that represents the course alteration away from eighteen years of counter-insurgency operations, stability operations, and nation building toward LSCO, urban combat is only mentioned in passing.¹¹ *FM 3-0* identifies cities of all sizes as a possible future battlefield in line with the previously mentioned Strategic Studies Group findings. However, it does not touch upon the potential impact on soldiers, resources, and operational level planning required to conduct such campaigns.

US Army doctrine does, however, contain a manual specifically geared toward combat in cities. *Army Techniques Publication (ATP) 3-06, Urban Operations* provides a detailed description of urban terrain as well as the characteristics of urban warfare that US forces are likely to encounter in a variety of situations. It also relates the risks, effects on each warfighting function and considerations commanders and staffs should be aware of in offensive, defensive, and stability operations.¹² *ATP 3-06* is a useful tool for commanders at the tactical level of war to plan, prepare, and execute urban operations. It fails, however, in both linking tactical action to strategic context and incorporating the elements of operational art to urban warfare. It is purely a tactical publication that offers little to no insight for the operational artist. The Army continues its

¹¹ US Department of the Army, *Field Manual (FM) 3-0, Operations* (Washington, DC: Government Printing Office, 2017), Para 1-64.

¹² US Department of the Army, *Army Techniques Publication (ATP) 3-06, Urban Operations* (Washington, DC: Government Printing Office, 2017), 3-1 – 3-18.

emphasis on the tactical level of warfare regarding urban operations with *Army Tactics, Techniques, and Procedures (ATTP) 3-06.11, Combined Arms Operations in Urban Terrain*. *ATTP 3-06.11* is a how-to manual for Brigade Combat Teams and their subordinate organizations. While offering valuable lessons learned and considerations for the urban fight, it provides little in the way of operational art and design at echelons above brigade.¹³ Diving deeper into US Army doctrine, more of the same is found. *Army Doctrine Publication (ADP) 3-09, Offense and Defense, FM 3-90-1, Offense and Defense Volume I*, and most, if not all, specialized doctrinal publications referring to logistics, engineering, and signal make no mention of the unique conditions and problems found in urban terrain or its impact on operations and those essential warfighting functions.¹⁴ No doctrinal manuals make any mention of divisional operations or planning and execution considerations about the urban environment.

FM 3-06, Urban Operations and *ATTP 3-06.11, Combined Urban Operations in Urban Terrain* offer stand-alone step-by-step guides to performing operations in a specific environment and do not fit well into the LSCO concepts of *FM 3-0, Operations*. The publications concerning urban warfare describe the unique terrain and its relationship to the tactical level of war, but those considerations do not link to the operational level, nor do they make mention of how strategic context influences the two. Operational thought for the US Army involves planning operations and campaigns to achieve strategic goals and links those goals to tactical actions to accomplish the desired endstate. US military thinking involving the operational level of war and its

¹³ US Department of the Army, *Army Tactics, Techniques, and Procedures (ATTP) 3-06.11, Combined Arms Operations in Urban Terrain* (Washington, DC: Government Printing Office, 2011), xii.

¹⁴ The ensuing case studies show that true joint combined arms operations, not merely Infantry and Armor, are the key to success in urban operations. Specific Joint and US Army War Fighting Function doctrine make little mention of the urban environment and the complexity therein. US Department of the Army, *Field Manual (FM) 2-0, Intelligence* (Washington, DC: Government Printing Office, 2018), 6-1; US Army, *FM 3-0* (2017), 5-5, 7-20; US Department of the Army, *Field Manual (FM) 3-09, Field Artillery Operations and Fire Support* (Washington, DC: Government Printing Office, 2014), 1-28; US Department of the Army, *Field Manual (FM) 3-34, Engineer Operations* (Washington, DC: Government Printing Office, 2014), 2-22.

connection to urban operations lacks continuity and fails to address the elements of operational art in an urban context. This omission leads to a gap in planning considerations towards the most complex operational environment in which future conflicts are likely to occur.

Unlike Army doctrine, Joint doctrine does consider operational art in the urban environs because joint operations lend themselves better to complexity. *Joint Publication (JP) 3-06, Joint Urban Operations*, fills the operational planning and execution gap from *ADP 3-06*. Whereas Army doctrine focuses on the tactical level of urban operations, *JP 3-06* provides operational and strategic context to urban combat and gives both division-and joint commanders and their staffs a framework to begin attacking the urban puzzle.

JP 3-06 details the characteristics inherent in urban operations and applies the elements of operational art to those characteristics to provide a framework for planning and executing joint urban operations, stating

When planning an operation or campaign to deal with adversaries within urban environments, the JFC [Joint Force Command] must go beyond the idea of attacking the embedded adversary. . . . The reality of the urban environment presents a unique set of circumstances and parameters, which will significantly influence the approach to operational art. Commanders at all levels must fit the execution of short-term operations into a larger operational design, and this design must link their near-term actions to the end state.¹⁵

Chapter III of *JP 3-06* outlines planning considerations of Joint Force Commands (JFC). Of significance is the weighted importance placed on Mission Analysis about critical infrastructure , civilians on the battlefield, collateral damage, and environmental impacts with second and third order effects, and Joint Intelligence Preparation of the Battlefield (JIPB). This emphasis in understanding the unique complexity inherent in an urban operational area is necessary because unlike other operating environments, urban environments present a multitude of operational characteristics that are orders of magnitude more complex due to added levels of

¹⁵ US Department of the Defense, Joint Staff, *Joint Publication (JP) 3-06, Joint Urban Operations* (Washington, DC: Government Printing Office, 2013), x.

human terrain combined with the three-dimensional aspect of cities. Each city is a distinct complex system in its own right with surface, subsurface, super-surface, and unique interconnectedness physically and digitally. Analytically understanding all potential adversaries, non-combatants, friendly forces, and unique characteristics as a dynamic system is of the utmost importance to set conditions to achieve victory.¹⁶

However, Chapter III does have its drawbacks. The opening paragraph states that planning considerations concerning the operational environment “generally follows the same basic process for planning operations in other environments.”¹⁷ Though in the ensuing paragraph, it states that the challenges inherent in operating in an urban area are sufficiently different and complex, requiring commanders and their staffs to give due consideration to the unique requirements of the urban environment.¹⁸ This muddled language has the potential to lead operational planners and staffs to an incorrect starting point when assessing the operational environment inside the urban terrain. Though it may contain characteristics and combinations of other forms of terrain, the urban battlefield is a terrain in and of itself and must be thought of as such. Planners and commanders risk missing key variables and aspects of the complexity within an urban environment. With that in mind, Chapter III of *JP 3-06* can only serve as the foundation for an operational framework with which commanders begin to exercise operational art in urban terrain, and by extension, within a megacity.

Chapter IV of *JP 3-06* builds upon that foundation by incorporating the specific elements of operational art and design which are relevant to urban combat operations. Here is found one of the few links to *ATP 3-06*. Chapter IV of *JP 3-06* details each joint function and its relation to urban operations, much like chapter III of *ATP 3-06*, it describes the Army warfighting functions

¹⁶ US Army, *JP 3-06* (2013), III-1 – III-29.

¹⁷ Ibid.

¹⁸ Ibid.

and how each commander uses them to attain desired effects. The linkage is not direct and must improve, as it never defines the give and take relationship of respective functions to the city. *ATP 3-06* describes how commanders use the warfighting functions to deliver effects, while *JP 3-06* illustrates the impact that urban terrain has on each Joint function. To mend this gap, the documents should describe the effects that each function provides to operations in a city as well as the impact of the terrain on the function itself. Chapter IV identifies the potential consequences, limitations, constraints, strengths, and weaknesses of each element of operational art and identifies specific issues that hold the most weight in the urban environment.¹⁹ Regardless these doctrinal publications fail to address the more significant issue posed here, that US Army and US Joint doctrine offer only a base framework with which to apply operational art and design within a megacity operation.

Adversarial doctrine and practices may offer an alternate perspective to the urban operational environment. Russia, with arguably the most experience of any modern military in the conduct of urban warfare, provides the most relevant doctrine, practices, and application to future operations. As discussed in the Grozny case study to follow, Russian urban doctrine underwent a significant revamping between the first and second Battles of Grozny in 1994 to 1995 and 1999 to 2000.²⁰ The resulting success in the second Battle of Grozny stems from hard lessons learned through blood and material. The urban doctrinal concepts that the Soviet Red Army learned in Leningrad, Stalingrad, and Berlin provided Soviet, and subsequently Russian leaders with

¹⁹ US Army, *JP 3-06* (2013), IV-1 – IV-44.

²⁰ Ir Faurby, “The Battle(s) of Grozny,” *Baltic Defense Review* 2, no. 76 (May 1999): 86; Olga Oliker, *Russia’s Chechen Wars, 1994-2000: Lessons from Urban Combat* (Santa Monica, CA: RAND Corporation, 2001), 84; Brett C. Jenkinson, “Tactical Observations from the Grozny Combat Experience” (Thesis, Command and General Staff College, Fort Leavenworth, KS, 2002), 103-5.

techniques and operational lessons which they quickly forgot in the ensuing sixty years of the Cold War. This is a lesson the US Army should keep close at hand.

Russian doctrine for urban operations regardless of the scale of combat, whether it be offensive, defensive, counterinsurgency, or stability operations, is characterized by three features; overwhelming mass, a disregard for collateral damage, and acceptance of massive civilian and military casualties.²¹ These are concepts that we cannot, and should not, adopt in future campaigns. However, the Russians learned early that the key to success in urban operations is combined arms operations, namely those involving armored formations, dismounted infantry, and engineer support, as they have proven pivotal to success in urban terrain. This was a lesson the Russians adapted after failure in the first Battle of Grozny, and Coalition forces perfected in the second Battle of Fallujah.²² It should be reiterated that the Soviets and the Russians never stray far from their doctrine of destruction and disregard for collateral damage, as was evident in the second Battle of Grozny.

After this brief doctrinal review, it stands that the best guide for the urban operational artist is *JP 3-06*. Only this publication makes the leap from the tactical to the operational level and views fighting in a city as a significant component of a campaign. Specific elements of operational art and design are inherently more relevant than others when planning and executing division/joint operations within a city, and are even more important when applied to an LSCO urban setting. Operational reach, tempo, basing, and arranging operations prove to have the most significant impact for the operational artist in planning and executing operations within the urban

²¹ Dale R. Smith, "Commonalities in Russian Military Operations in Urban Environments" (Master's Thesis, Command and General Staff College, Fort Leavenworth, KS, 2003), 9-18.

²² William G. Robertson and Lawrence A. Yates, eds., *Block by Block: The Challenges of Urban Operations* (Fort Leavenworth, KS: US Army Command and General Staff College Press, 2003), 46; Kendall Gott, *Breaking the Mold: Tanks in the Cities* (Seattle, WA: CreateSpace Independent Publishing Platform, 2012), 85, 99-106.

environment. This monograph reviews these elements and uses them as an initial framework with which to evaluate the case studies of Grozny, and Fallujah in the following chapters.

Grozny

The Russians could take the city back. It would take them half a year, and they would have to destroy the town all over again. They could even take it in a month, but it would cost ten to fifteen thousand men.

— Chechen guerrilla leader Shamil Basayev

The first case study to consider involves the Russian Army, though in this instance a catastrophic failure at the operational level had direct effects on the tactical ability of the fighters. It is not appropriate in this monograph to delve into the political and strategic reasons leading to the 1994 Battle of Grozny. The Battles of Grozny resulted from the fragmentation of the Soviet Bloc and the desire of new Russian leaders to retain the oil-rich region of Chechnya. This led to a bloody conflict between the remnants of the Red Army and Chechnyan independence fighters. Suffice it to say that this case study is an example of regular military forces with a considerable technological advantage facing fragmented and poorly trained militia fighters and insurgents.

Following World War Two, the Soviet military owned the most experienced urban military force in the world. The Battle of Stalingrad, and the subsequent seizure of Berlin, honed the Soviet Red Army into the premier army in the world concerning city fighting. Following the war, however, the Soviets lost much of that expertise. The only LSCO post World War Two involving the Soviets was the occupation in Afghanistan, which saw little urban engagements.²³ Also, Soviet leadership during the Cold War focused primarily on large-scale maneuver warfare

²³ Louis A. DiMarco, *Concrete Hell: Urban Warfare from Stalingrad to Iraq* (Oxford: Osprey, 2012), 153.

against western countries. Large-scale urban operations which focused on long-term and resource consuming campaigns ran counter to Soviet doctrinal thinking of the time.

Additionally, the Soviets thought, much like American military thinkers of the time, that a defensible city could just as quickly be bypassed, surrounded, and starved out rather than attacked. As urban warfare historian Dr. Louis DiMarco states, “Urban warfare, once a key competency of the Red Army, was absent from both Soviet doctrine and practice by the end of the Cold War.”²⁴ What brought the Russian Army to the city of Grozny was the dire need to set an example to potential breakaway states. The frail Russian government needed those states for two reasons: natural resources to bolster a fledgling economy and to hold on to what perceived power they had left. The city of Chechnya in the mid-1990s consisted of 490,000 people of both ethnic Russian and Chechen descent. The metropolitan area of Grozny and the surrounding suburbs encompassed ninety square miles with a mixture of single-family homes to massive building complexes, all primarily constructed with reinforced concrete. And, like the Volga river in Stalingrad, Grozny’s dominant terrain feature is the Sunzha river which divides the city in two.²⁵

The Russian Army following the breakup of the Soviet Union looked eerily similar to the Red Army of the Cold War, but the proverbial “bear” had lost much of its teeth. The Russian invasion plan for Chechnya was a broad-based four-stage campaign. Phase one, the isolation phase, served two roles: force Chechnyan separatist leader Dzhokhar Dudayev to negotiate and position troops for the eventual seizure of Grozny. Phase one was only to take seven days. Phase two, securing Grozny by seizing key terrain such as the presidential palace governmental facilities and media outlets, was planned to last four days. Figure one shows the planned Russian

²⁴ Ibid., 155.

²⁵ DiMarco, 152; Stasys Knezys and Romanas Sedlickas, *The War in Chechnya* (College Station, TX: Texas A&M University Press, 1999), 10.

penetration along three axis of advance to the city center. It is important to note that the Russian plan never involved the seizure of the entirety of the city. Phase three consisted of clearing the remaining lowlands and forcing separatists into the southern Caucas Mountains while Russian internal defense forces established a pro-Russian government in Grozny. This was to last ten days. In Phase four, Russian Army forces were to eliminate resistance in the Caucas Mountains. The length of the entire operation leading to phase four was to last less than three weeks.²⁶

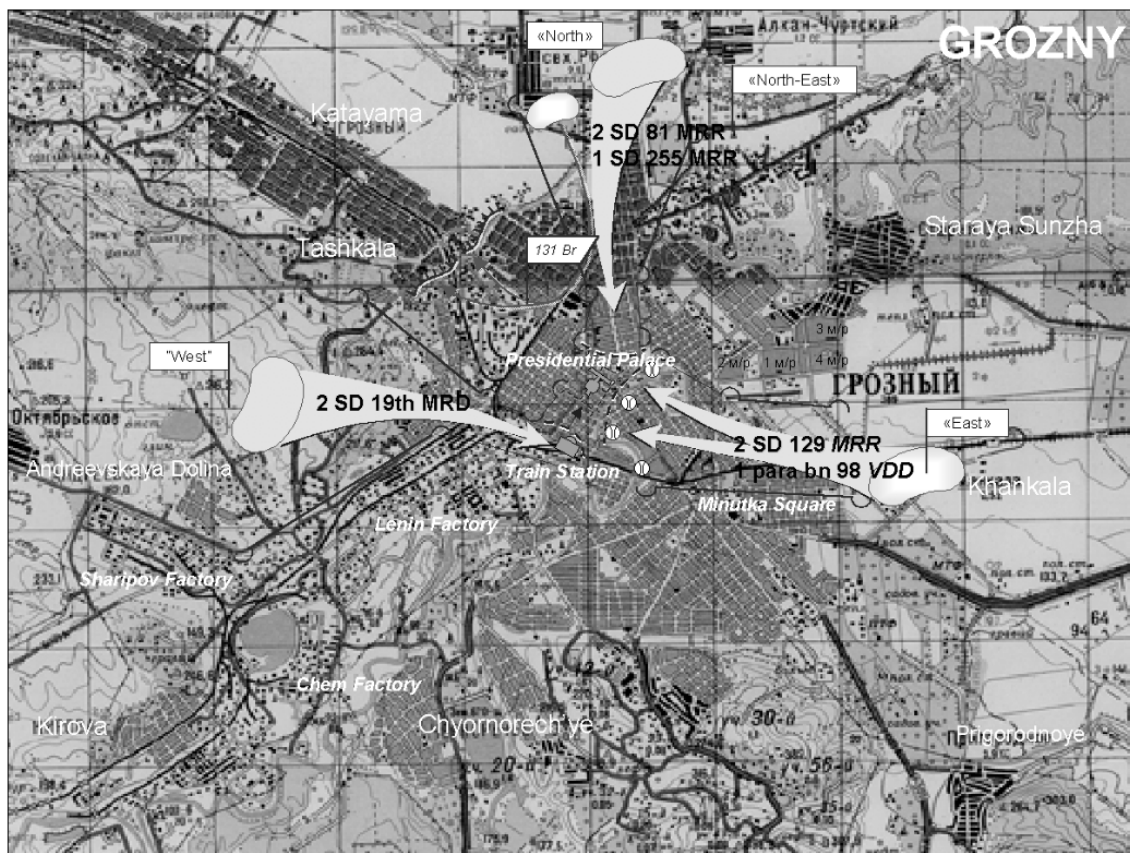


Figure 1. Russian Forces Penetration of Grozny. Russell W. Glenn, ed., *Capital Preservation: Preparing for Urban Operations in the Twenty-First Century: Proceedings of the RAND Arroyo-TRADOC-MCWL-OSD Urban Operations Corporation, March 22-23, 2000* (Santa, Monica, CA: RAND Corporation, 2001), 42.

²⁶ Faurby, "The Battle(s) of Grozny," 76.

The combat power the Russians hurled at the seizure of Grozny was 38,000 soldiers with 230 tanks, 353 infantry fighting vehicles, and 388 tube and rocket artillery pieces, all under the command of Russian Defense Minister, General Pavel Grachev. Additionally, for close air support the Russians used attack helicopters and fixed-wing aircraft from the 4th Air Army. Opposing the Russian regular army, the five thousand Chechnyan defenders fielded a disparate group of fighters with little to no military experience. The few Chechnyan fighters with military experience were composed of former Soviet soldiers, placed in ad hoc leadership positions. The number of experienced military Chechen fighters is estimated at less than one thousand. The defenders also had a small amount of old Soviet equipment left behind after the breakup of the Soviet Union. This equipment included approximately forty battle tanks, thirty armored personnel carriers and thirty medium artillery pieces. Not the scale practitioners can assume for megacity operations, yet large enough to apply the operational art urban framework.

By December 30, 1994, Russian forces completed phase one (after failing to force negotiations) having encircled Grozny, blocking the major routes in and out of the city. Despite this, the complete isolation never materialized. Gaps existed within the Russian perimeter; as a result, the Chechnyan rebels maintained freedom of movement in and out of the city center throughout the operation.²⁷ On December 31, 1994, Grachev issued the assault order with drastic changes: the Russian Army was to forego an isolation period and were now to assault the city without support from troops from the Ministry of the Interior.²⁸ These last-minute changes had dramatic impacts on the Army Groups and their march objectives. All prior objectives now shifted, forcing commanders and planning staffs to shift planning efforts expediently, a move which is never easily accomplished without adequate planning time for staffs and rehearsal time

²⁷ Timothy L. Thomas, "The Battle of Grozny: Deadly Classroom for Urban Combat," *Parameters* (Summer 1999): 89-90.

²⁸ Knezys and Sedlickas, *The War in Chechnya*, 91.

for the ground and air forces. The seizure plan for Grozny followed three axes, although the plan briefed had “four directions”, all actions were to occur simultaneously. The assumption that all objectives were able to be taken near simultaneously proved to be an egregious error, costing the Russians in blood and equipment. The Russians employed artillery and air strikes against templated enemy positions for ten days before the attack with little regard for collateral damage and the impact on civilians, especially supportive ethnic Russians living in the area.²⁹

On the evening of December 31, 1994, the Russians began the assault. They initially planned three major assault groups broken down further into four assault columns and started the daunting task of wresting control of the capital in the breakaway province. The southwest group consisting of elements from the 76th Airborne Division with units from the 19th Motorized Regiment initiated a movement to seize the central Grozny rail station and isolate the presidential palace from the southern approach. Group North, consisting of the 131st Motorized Rifle Brigade and units from the 276th and 81st Guards Motorized Rifle Regiments moved to secure the Severny Airfields to the north of the city center with a final march objective of securing the presidential palace. Group West, consisting of the 693rd and 503rd Motorized Rifle Regiments and the 237th Parachute Regiment maneuvered to seize Lenin Park in the heart of the downtown area and simultaneously secure the Grozny Central Rail Station. Group North-East, with the 255th, 74th, and 33rd Motorized Rifle Regiments aimed at seizing the Central Hospital Complex. Lastly, Group East with the 29th Motorized Rifle Regiment, the 133rd Tank Battalion, and the 98th Guards Parachute Regiment moved to seize the Grozny Airport and secure the R-305 and R-306 road junctions. A problem existed in each of these units that is only apparent in hindsight:

²⁹ DiMarco, *Concrete Hell*, 156; Faurby, “The Battle(s) of Grozny,” 76.

the hastily formed groups had no operational cohesion and virtually no training in large-scale operations, let alone urban operations.³⁰

The Russian plan, or what semblance there was of a plan, quickly fell apart as advancing troops met with stiff opposition. Russian armor maneuvered without infantry support, making plum targets for the Chechens who used anti-tank weapons and hit and run tactics from prepared positions in ruins created from the Russian Preparatory fires. Chechen leadership chose to draw Russian forces into the densely built-up areas of the cities and fight them on terrain which benefitted them most; where the Russians could not effectively use artillery and air support. Only the northern group reached their respective march objective, coming within a few hundred meters from the Chechen headquarters inside the presidential palace. The 131st Motorized Infantry Brigade reached the railway station after fierce fighting and after multiple attempts to seize it. The engagement at the rail station itself proved to be the final blow as the Chechens almost entirely wiped out the 131st Brigade. Losing twenty of twenty-six tanks, 102 of 120 armored personnel carriers, and hundreds of casualties, the 131st experience highlights the common experience of the entire Russian force.³¹ By the close of the first day of 1995, the Chechnyan separatist fighters dealt the Russian Army a decisive defeat. The Russian Army suffered more than 1,000 soldiers killed, 84 soldiers captured, and over 200 armored vehicles destroyed.³²

From January 9, to January 18, 1995, seven battalions of Russian Naval Infantry joined the fight, bringing ninety tons of ammunition with them. The large numbers of soldiers, equipment and ammunition entering Chechnya on short notice proved to be a Russian logistical feat but could, and should, have been altogether unnecessary. The first encounter in what became the Battle of Grozny ended on February 13, 1995 after heavy losses forced the Russian Army

³⁰ DiMarco, *Concrete Hell*, 157.

³¹ Faurby, "The Battle(s) of Grozny," 80.

³² Faurby, "The Battle(s) of Grozny," 81; DiMarco, *Concrete Hell*, 167; Knezys and Sedlickas, *The War in Chechnya*, 49-52.

units to change their tactics and operational approach. The Russian Army captured Grozny in a horrendous, block-by-block fight. Ultimately, the first Battles for Grozny took just under two years and resulted in a nationally embarrassing truce that favored the Chechen rebel separatists. After fifty years, the Russian army had lost its operational and tactical experience. Unprepared commanders and staffs combined with soldiers ill-prepared mentally and physically for a prolonged action in a city fight, led to disaster and a lesson paid for with precious blood and treasure.

Though the Russians eventually reevaluated their initial operational approach to the situation in Chechnya and would go on to earn a hard won victory in Grozny, it was a tenuous victory that led to a second war five years later in 1999. How had the Russians, having arguably the most operational experience in urban warfare of any army in the world, failed so miserably in the initial stages in the first Battle of Grozny? Using the framework from chapter one as a lens, the answer becomes clear: a lack of any semblance of an operational approach. The Russian leadership fell back on their doctrine of destruction to force capitulation. Ironically, this is similar to the German approach in Stalingrad, which the Soviets proved faulty sixty-one years earlier.

In selecting their initial objectives, the Russians failed to link them to their desired effect on the Chechen rebels. The initial intent, to force capitulation from Chechen rebel leaders through sheer force, proved flawed from the outset. The Russian high command's strategic end state of capitulation by Chechen leaders offered enough specificity to operational leaders to define specific objectives within Grozny, which arguably they did. However, the specified objectives of seizing the two airfields, the presidential palace, the road junction, the rail station, and Lenin Park offered no link to the termination criteria.³³ The operational planners completely misunderstood the operational environment and the degree to which the rebels were willing to fight. The

³³ US Department of Defense, Joint Staff, *Joint Publication (JP) 5-0, Joint Planning* (Washington, DC: Government Printing Office, 2017), IV-21.

planners required a proper understanding of how the rebels were prepared to fight combined with an understanding of what the required conditions were to achieve the strategic objective of capitulation. The Russians attained, at least temporarily, almost all initial march objectives, yet inflicted no pressure on Chechen leadership to surrender.

Flawed assumptions regarding the length of the proposed operation combined with unwavering adherence to the published timeline led Russian planners to vastly under-forecast logistical requirements for the resource-intensive urban fight. Additionally, Russian units advanced toward disparate objectives on three separate and non-supporting axes of advance, and the farther the Chechen fighters pulled them into the city and extended their LOCs. As a result the less effectively the Russians could conduct resupply, replenishment, and casualty replacement. Had Russian planners and commanders adhered to the element of basing and established logistical points up to and inside Grozny, the issue of replenishment and troop replacement would have been somewhat mitigated. This small, yet significant, change to the Russian plan would have enabled a more robust ground force, thus extended their operational reach up to, and through, their respective objectives. The Chechen success in destroying Russian armor with small groups armed with anti-armor weapons proved successful. However, the Russians had no replacement plan, having assumed away the need for effective and timely replacements.³⁴ Had any plan existed and been implemented, Chechen fighters may have found it much more difficult to deal with multiple waves of fresh Russian soldiers. Of note, the lack of adequate logistical preparations down to even an individual Soldier proved deadly when combined with the winter

³⁴ Lester Grau and Timothy Thomas, "Soft Log and Concrete Canyons: Russian Urban Combat Logistics in Grozny," *Marine Corps Gazette* (October 1999): 68-74.

weather in the Caucasus. At one-point, Russian soldiers were sharing single cans of food with virtually no water for days on end.³⁵

Russian forces could never provide subordinate forces with enough resources to maintain operational reach, despite pushing forward to their respective objectives. The under-equipped Chechen fighters quickly denied the Russians of their ability to conduct follow on or even simple consolidation operations. Conversely Chechen fighters maintained open lines of communication through the porous Russian perimeter and conducted resupply and replenishment operations at will, were able to set the tempo, and never sacrificed their operational reach. These failures in logistical planning and establishing adequate basing facilities had an immediate effect on the Russian's ability to maintain adequate tempo.³⁶ The Russians never managed a proper tempo throughout the battle, despite constantly pushing forward inch by inch to reach their ill devised objectives.

The Russian plan failed to coordinate the four axes is of attack into the city, failing to achieve a "combination of simultaneous and sequential operations to reach the end state conditions with the least cost in personnel and other resources."³⁷ Each axis aimed only at achieving individual objectives, and at no point did the forces on each approach provide mutual support or strive to achieve mutual aims to reach the operational endstate.

It is important to note again the importance of combined arms operations, especially the consequences of improper execution as seen in the Russian operational approach in Grozny in 1994. One Rebel Chechen commander remarked,

What struck me at first was that Russian tanks and APCs were not even advancing in battle order. They were marching as if on parade ground with only a distance of 5 to 6 meters between each APC. They were unable to maneuver or turn around when

³⁵ Gall and De Waal, *Chechnya*, 210.

³⁶ Joint Staff, *JP 5-0* (2017), IV-35, IV-37; Joint Staff, *JP 3-06* (2013), III-16, III-17.

³⁷ Joint Staff, *JP 3-06* (2013), III-17; Joint Staff, *JP 5-0* (2017), IV-36.

necessary. This was a suicidal maneuver for APCs. What is more, infantry was also advancing in complete disorder among the APCs.³⁸

The Russian technique of presenting as much firepower as possible along each axis of advance, aimed to bring about the strategic endstate of capitulation. The Chechens, however, saw it as the opportunity it was, the prospect of drawing in the disjointed forces into close combat and negating the firepower advantage of the armored formations. Had the Russians executed proper combined arms operations with infantry and engineer support of the armored columns, and not advanced in “parade” formation, they may have seen more success in Grozny.

While *JP 3-06* demonstrates a framework for operations in Grozny, it falls short when applied to a megacity construct. In particular here, basing, operational reach, and tempo represent the most important elements of operational art in need of further review when applied to a megacity operation. *JP 3-06* only makes little mention of basing, dedicating only one paragraph and only in conjunction with sustainment as a whole.³⁹ What mention is made pertains to the importance of realizing that an urban area may not provide adequate area to house an all-encompassing support structure and recommends constructing smaller bases for specific support operations. This may not be necessarily true in a megacity, and disaggregating support inherently adds increased security requirements to a commander’s tasks. Operations in Grozny also demonstrated the need and proper application of a dedicated operational reserve force. Of note, the Deputy Commander of Russian Ground Forces resigned his position before the invasion into the breakaway province for a multitude of operational oversights, chief of which was the lack of an operational reserve.⁴⁰ *JP 3-06* makes no mention of the proper use of an operational level reserve. The size and scale of a megacity necessitates the need to identify and use a reserve force

³⁸ Ilyas Akhmadov, The Battle of Grozny, *Small Wars Journal*, 1 June 1999, 2, accessed 30 November 2018, smallwarsjournal.com/documents/akhmadovinterview.pdf.

³⁹ Joint Staff, *JP 3-06* (2013), IV-38.

⁴⁰ Gall and De Waal, *Chechnya*, 177-82.

if only to provide the commander a force to facilitate operational reach and the ability to set an appropriate tempo as needed.

Fallujah

With the prevalent Low-Intensity Conflict mentality inundating the Corps, there has developed a mindset that small and light is good, and big and heavy is bad. The truth be told, small, and light equates to weak and dead.⁴¹

— Colonel Michael Schupp

The 2004 Battle of Fallujah gave the US Army its first taste of urban combat since the 1994 Battle of Mogadishu and its largest in terms of scale and complexity since the Battle of Hue in the Vietnam War. The rapid decline of the rule of law and relative economic security following the 2003 US-led invasion of Iraq combined with the dismantling of Iraqi Security Forces following the defeat of Saddam Hussein's military led to deeply seeded unrest in the Al Anbar province.⁴² Fallujah occupies 25 square kilometers and contains roughly 50,000 buildings and structures inside 2,000 city blocks. The 2003 population estimate varied between 250,000 and 350,000 residents, depending on the refugee influx in a given month from the outlying provincial areas.⁴³ On March 31, 2004, insurgents inside Fallujah captured and killed four Blackwater contractors, eventually hanging their bodies from a bridge over the Euphrates river. Public and political pressure quickly mounted and forced the hand of the Bush administration to react

⁴¹ Matt Matthews, *Operation Al-Fajr: A Study in Army and Marine Corps Joint Operations* (Fort Leavenworth, KS: Combat Studies Institute, 2006), 14.

⁴² Gian P. Gentile, *Reimagining the Character of Urban Operations for the U.S. Army: How the Past Can Inform the Present and Future* (Santa Monica, CA: RAND Corporation, 2017), 68.

⁴³ Timothy S. McWilliams and Nicholas J. Schlosser, *U.S. Marines in Battle: Fallujah, November - December 2004* (Quantico, VA: Books Express Publishing, 2014), 3.

hurriedly. Four days later, on April 3, 2004, Joint Task Force 7 commander, Lieutenant General Ricardo Sanchez ordered the I Marine Expeditionary Force (I MEF) to attack the city.⁴⁴

Operation Vigilant Resolve began that day with minimal planning, obscure objectives, and no shaping operations. These ambiguous objectives included the arrest of the Blackwater attackers, clearance of all foreign fighters, the removal of heavy weapons, and to make Highway 10 clear for military traffic. The vagueness of Sanchez's objectives directly contributed to the failure of Operation Vigilant Resolve. I MEF proceeded to cordon off the city hastily, and on April 5, 2004, two battalions maneuvered from the northwest and southeast to the heart of the city. A third battalion arrived on April 8 and a fourth on April 24 with a contingent of Marine tanks and amphibious assault vehicles for infantry support. The Marines fought hard, earning ground inch by inch as is the norm in urban combat. The insurgent fighters hid among civilian structures, including mosques and homes making target acquisition next to impossible for direct and indirect fire. The resulting damage and high civilian casualties from the ill-planned operation forced US commanders to cease offensive operations on April 9, 2004. All told thirty-six US service members lost their lives with approximately 200 insurgents killed, and an estimated 600 Iraqi civilians dead.⁴⁵

Operation Vigilant Resolve failed, and Fallujah became more of a lightning rod for insurgents than ever before. The necessity to retake the city through direct action became increasingly clear over the next weeks and months as stability operations no longer seemed viable.⁴⁶ Initial planning began in July for the operation eventually named Al-Fajr or "The Dawn", well before setting a date for the day of execution. The initial title was Operation Phantom Fury, but after some analysis, Marine forces decided to permit Iraqi authorities to give it

⁴⁴ Gentile, *Reimagining the Character of Urban Operations for the U.S. Army*, 68.

⁴⁵ Jonathan F. Keiler, "Who Won the Battle of Fallujah?," *US Naval Institute Proceedings* 131, no. 1223 (January 2005): 47.

⁴⁶ Matthews, *Operation Al-Fajr*, 9-10.

an Arabic title to garner support in partnered Iraqi forces.⁴⁷ The Marines along with joint, multinational, and Iraqi partners immediately set about conducting initial shaping operations in the form of raids, air strikes against known and suspected enemy locations, and intelligence collection; activities which the commanders and staffs responsible for Vigilant Resolve overlooked. Major General Richard Natonski, the commander in charge of Al-Fajr, aimed to quickly identify infiltration and resupply routes in and out of the city to effectively isolate the insurgent fighters before the execution of the seizure itself.

Additionally, the Marines rectified the supply shortfall identified during the previous operation and units began to stockpile vast quantities of small arms ammunition, fuel, food, and other necessary supplies. Also of note, the Marine headquarters implemented an information operations campaign targeted against both the insurgents and civilians remaining inside the city. The aim was the minimization of civilian casualties by requesting all residents to evacuate the city and to counter any anti-coalition narrative from the insurgents by imbedding approximately ninety journalists with the units identified to conduct Al-Fajr.⁴⁸ The previously mentioned raids served a dual purpose. Initially, they helped to keep the enemy fighters inside Fallujah off balance through constant targeting. While simultaneously providing the Marine commanders and staffs time to complete initial planning the raids also served as a deception operation. The majority of the action took place on the northern avenue of approach to indicate to the enemy the probable direction of attack from coalition forces when in reality the Marines planned a southern approach.

Natonski and his staff decided to divide the city into two sectors and created two Regimental Combat Teams (RCTs) to each and augmented them with one US Army tank battalion to operate as combined Armor/Infantry teams. RCT 1 assumed control of western

⁴⁷ McWilliams and Schlosser, *U.S. Marines in Battle*, 6.

⁴⁸ Gentile, *Reimagining the Character of Urban Operations for the U.S. Army*, 72; Tao - Hung Chang, "The Battle of Fallujah: Lessons Learned on Military Operations on Urbanized Terrain (MOUT) in the 21st Century," *Journal of Undergraduate Research* 6, no. 1 (Fall 2007): 36.

Fallujah while RCT 7 assumed control of the eastern half. As seen in Grozny, the task organization of Armor and Infantry forces is critical to success in urban operations and was no different in Fallujah. As depicted in Figure 2, the operations plan called for simultaneous breaches at several points along the city's defensive perimeter and subsequent maneuver by the RCTs south and west. Shaping forces were to then block enemy forces inside Fallujah's southern and eastern sectors.

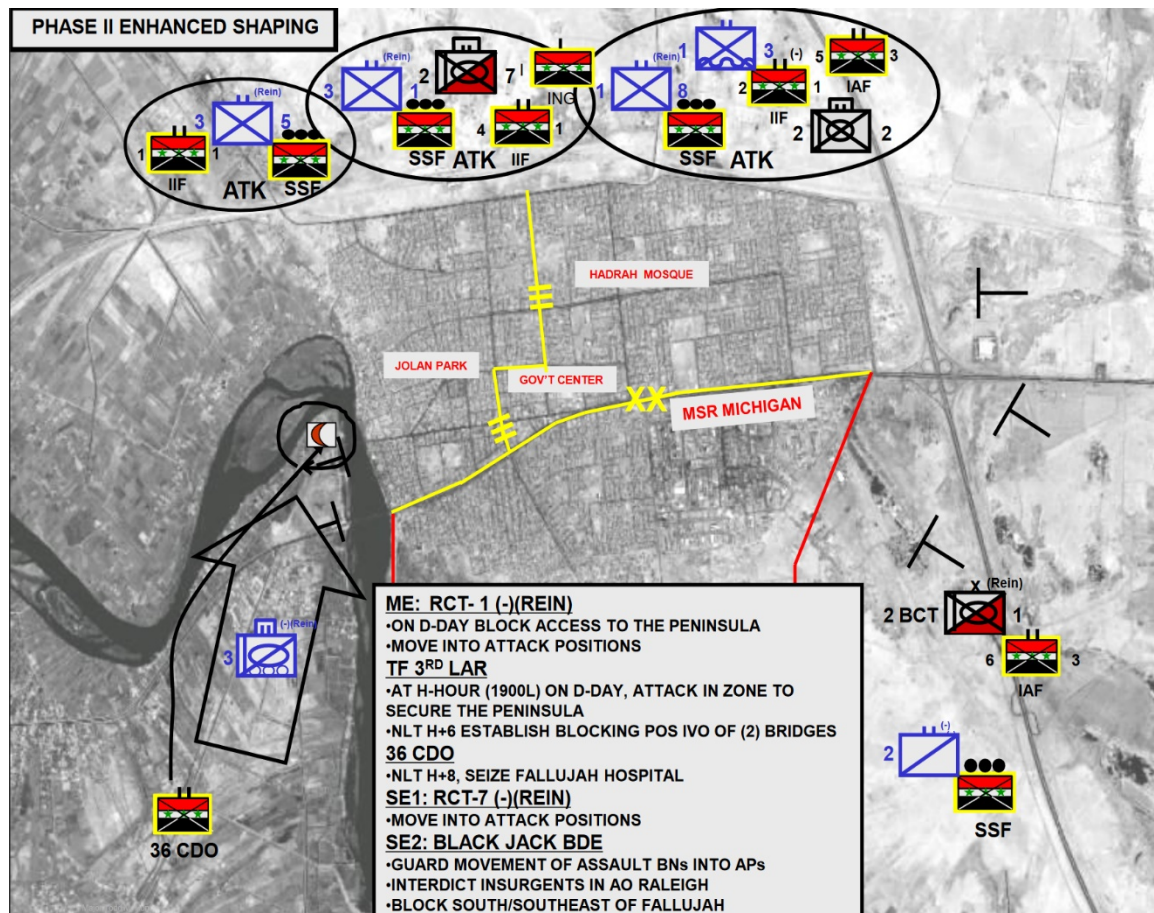


Figure 2. Operation Al-Fajr Shaping Operations. Connor Tucker, “A Stepson of Chechnya: A Study of Asymmetrical War in the Modern Era” (Thesis, Colgate University, 2010), accessed 2 February 2019, <http://www.colgate.edu/docs/default-source/default-document-library/ctucker.pdf?sfvrsn=0>.

RCT 1 initial march objective was Jolan Park with a follow-on objective of securing the so-called “Pizza Slice”. RCT 7 was to maneuver quickly to secure the main supply route at Highway 10, designated Phase Line Fran, which bisected northern and southern Fallujah. Once

both RCTs had demarcated and secured up to Highway 10, they were to continue maneuvering south and west to clear back to the initial start point. The heavy armored units provided by the Army offered the Marine commanders the ability to increase operational tempo, allowing the rapid seizure of objectives, while Marines on the ground were to provide protection to the armored columns and conduct house clearance operations.⁴⁹

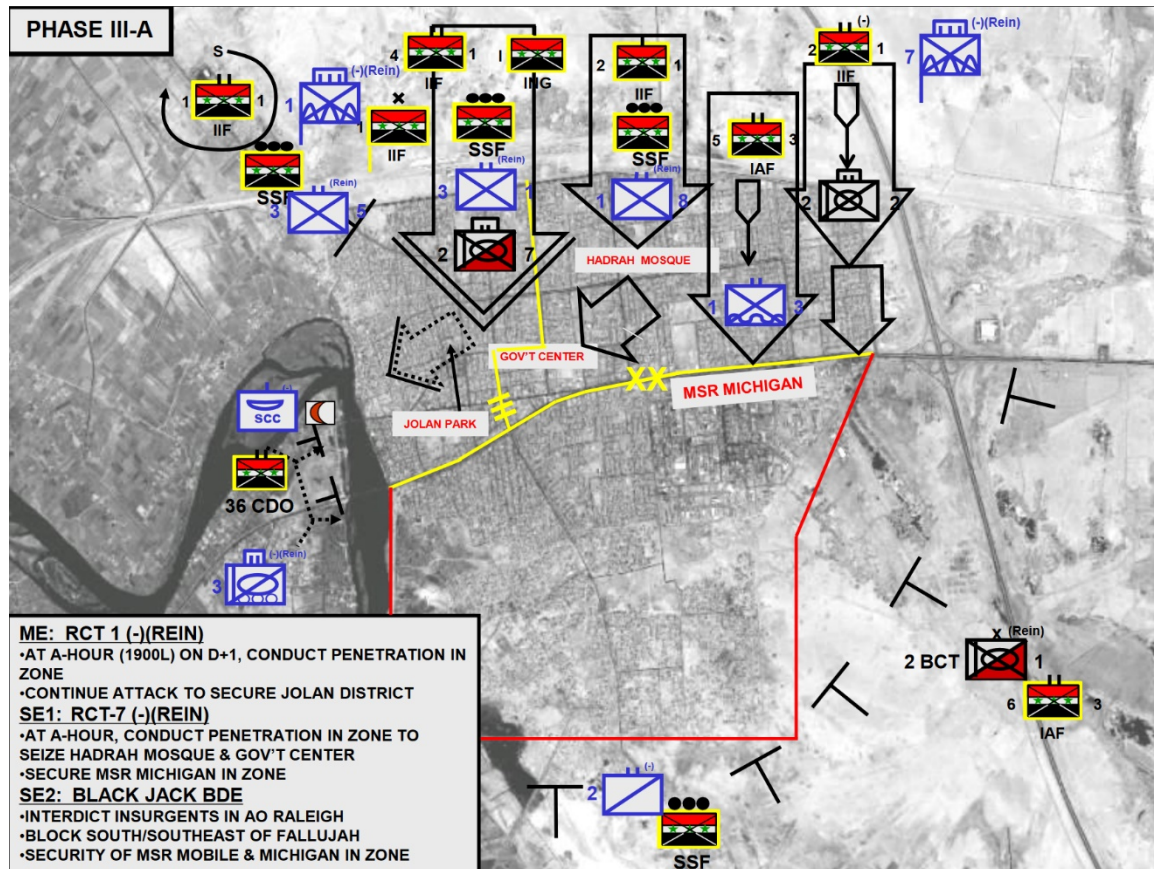


Figure 3. Operation Al-Fajr Phase III Operations. Connor Tucker, "A Stepson of Chechnya: A Study of Asymmetrical War in the Modern Era" (Thesis, Colgate University, 2010), accessed 2 February 2019, <http://www.colgate.edu/docs/default-source/default-document-library/ctucker.pdf?sfvrsn=0>.

After months of planning and shaping operations, on November 7, 2004, Operation Al-Fajr began. As with Grozny, US forces initiated a campaign of artillery and airstrikes to set conditions for the assault. Unlike the two previous case studies, the indirect fire campaign was

⁴⁹ Richard S. Lowry, *New Dawn: The Battles for Fallujah* (New York: Savas Beatie, 2010), 71-75.

carefully coordinated against preselected targets to minimize collateral damage and civilian casualties. Near-simultaneous to the preparatory fire shaping operations, the Marine and supporting US Army elements along with two Iraqi battalions designated Task Force Wolfpack initiated breaches and quickly seized initial objectives as depicted in Figure 3. With a strong foothold by all maneuver elements within the city, on November 8 the ground maneuver forces began to push farther into the city all the while making good use of ground and air reconnaissance as well as a number feints to disorient the insurgents. On the second day of fighting, the two US Army units reached their initial objectives, with dismounted Marines only hours behind. The combination of armored columns with dismounted ground forces proved again to be effective.⁵⁰

Beginning on November 9, the Marine infantry units and US Army armor had consolidated and prepped to initiate movement to their respective secondary objectives. In this effect, finding that the further they pushed into the dense urban areas, the heavier the resistance they encountered. It is important to note that unlike Grozny, the enemy fighters defending Fallujah had no armored forces to speak of, and only a limited amount of anti-armor capability. Yet enemy fighters were still able to effectively use homemade improvised explosive devices and light anti-armor weapons to mount a defense. Making steady progress and keeping the appropriate tempo in the face of the fierce defense, the Marines and Army forces reached Highway 10. Natonski, with recommendations from his staff and subordinate commanders, updated the plan. He ordered each RCT to designate a battalion to remain behind the main elements with the supporting armor to continue. These “stay behind elements” were to secure each RCT’s rear area (now referred to as the Consolidation Area) to clear bypassed enemy and

⁵⁰ McWilliams and Schlosser, *U.S. Marines in Battle*, 31.

secure the area for follow-on forces, while the main ground forces continued to seize objectives in southern Fallujah.⁵¹

The 11th of November marked the start of the second phase of the operation as depicted in Figure 4. The Marine RCTs crossed Highway 10 and began the seizure of southern Fallujah, the area with the densest defensive preparations, confirming the usefulness of the shaping raids aimed at diverting the insurgent's attention to the south. In the RCTs rear areas, Iraqi Security Forces engaged in some firefights, defending essential lines of communication. By nightfall, the Army armored units reached the southern limits of the city and took an operational pause to allow the Marine dismounts to complete the sector clearance and consolidate.

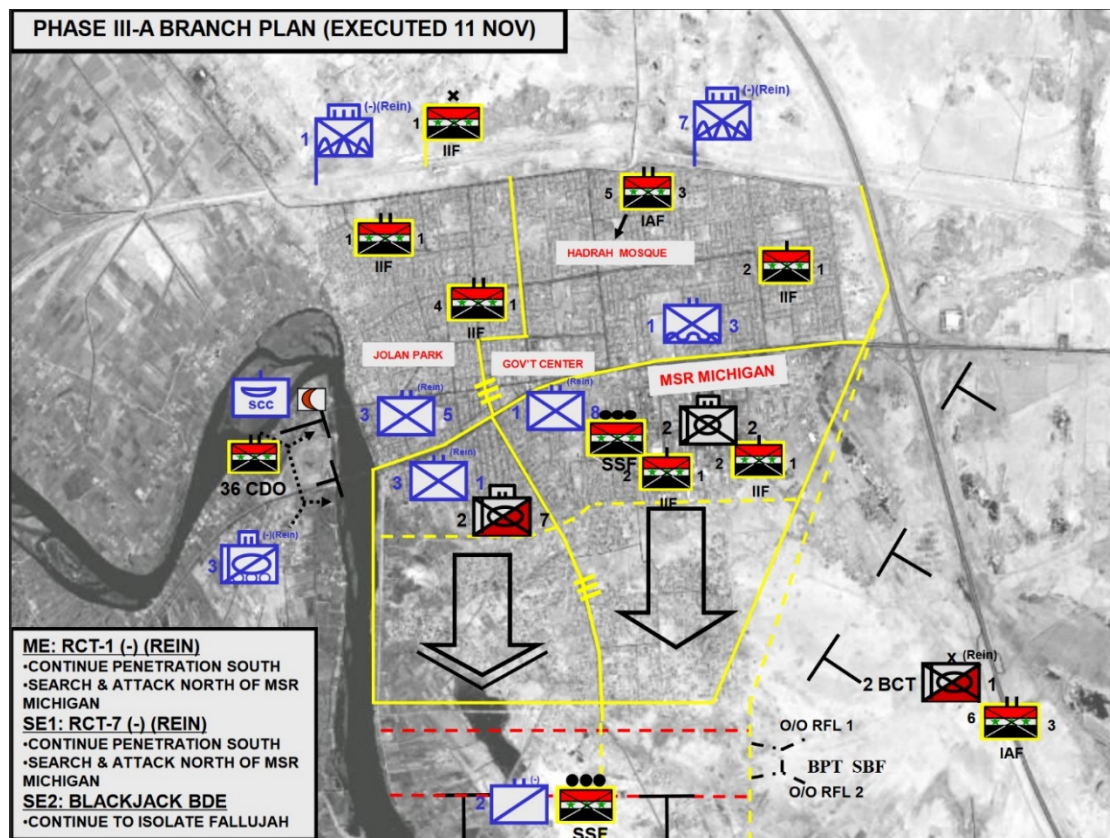


Figure 4. Operation Al-Fajr Phase IIIA Operations. Connor Tucker, "A Stepson of Chechnya: A Study of Asymmetrical War in the Modern Era" (Thesis, Colgate University, 2010), accessed 2 February 2019, <http://www.colgate.edu/docs/default-source/default-document-library/ctucker.pdf?sfvrsn=0>.

⁵¹ McWilliams and Schlosser, *U.S. Marines in Battle*, 39; US Army, *FM 3-0* (2017), 1-35 Para 1-158.

The 12th of November saw the insurgents dig in and increase their resistance as Marines and US Army units entered the industrial zone.⁵² Still, the rear security elements found themselves fighting insurgents who had either been trapped or had discovered one of a number of small infiltration routes to the coalition rear area. In the assault, Marines discovered entire buildings rigged to explode and multiple tunnel networks, exemplifying the complexity in the terrain found in the urban environment.⁵³ Both RCTs reached the city's southern limits and their final objectives. RCT 7 also initiated the slow transition to stability operations in providing humanitarian aid to the few remaining civilians they encountered and established a civil-military operations center.

On November 13, Natonski and his staff further sub-divided the city into sectors and ordered the soldiers and Marines under their command to conduct the systematic clearance of the assigned sectors with the intensity of enemy resistance increasing, depicted in Figure 5. Of significant note is the Marines encounter with the so-called "House of Hell", a fortified multi-story building which took four days to seize and clear. The difficulty in this particular instance lay with the trained and lethal Chechen foreign fighters who had strong-pointed the building. The Chechens learned many a hard lesson in the streets of Grozny as noted in the previous case study. With this experience, these fighters employed those lessons to the fight against coalition forces in Fallujah.⁵⁴

⁵² McWilliams and Schlosser, *U.S. Marines in Battle*, 42.

⁵³ *Ibid.*, 48.

⁵⁴ David Bellavia and John R. Bruning, *House to House: An Epic Memoir of War* (New York: Pocket Star Books, 2009); Robert D. Kaplan, "Five Days in Fallujah," *The Atlantic* (July/August), accessed 30 October 2018, <https://www.theatlantic.com/magazine/archive/2004/07/five-days-in-fallujah/303450/>.

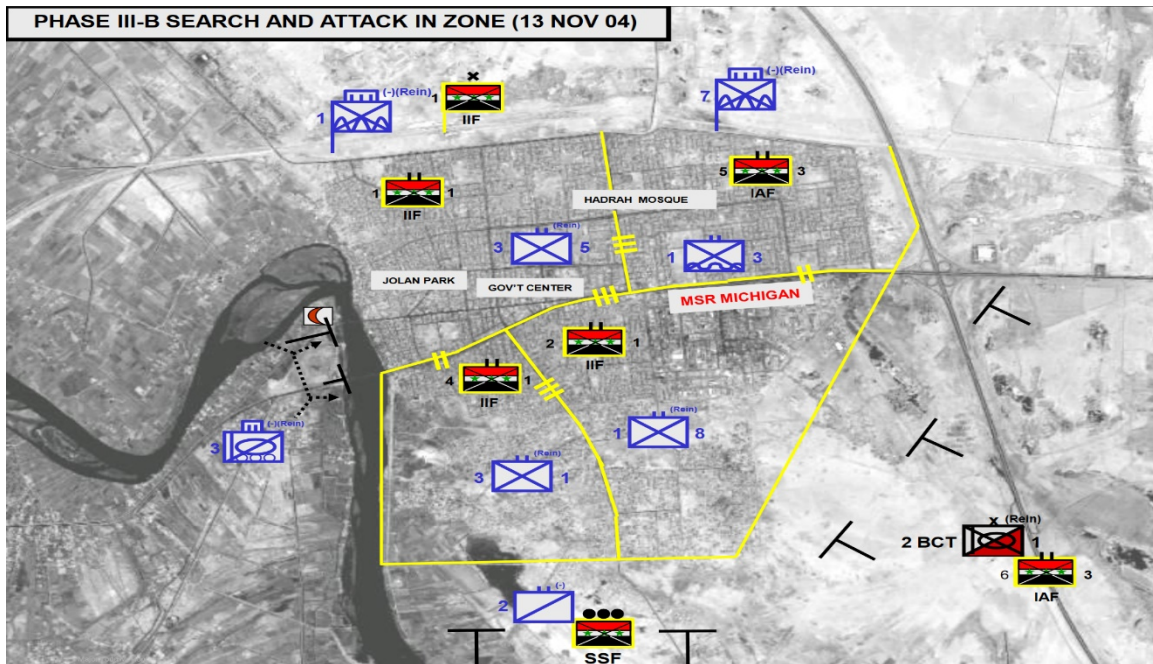


Figure 5. Operation Al-Fajr Phase IIIB Operations. Connor Tucker, “A Stepson of Chechnya: A Study of Asymmetrical War in the Modern Era” (Thesis, Colgate University, 2010), accessed 2 February 2019, <http://www.colgate.edu/docs/default-source/default-document-library/ctucker.pdf?sfvrsn=0>.

The 16th of November marked the relative downturn in resistance from insurgents, allowing US commanders to begin rotating troops out of the city and replacing them with fresh soldiers and marines. This rotation is essential to note, even though the fighting had begun to wane, maintaining operational tempo and operational reach was still crucial, and fresh troops were the answer. On November 20, Marine and US Army forces began a phased withdrawal from the city while maintaining a presence in support of Iraqi Security Forces in the area with RCT 1 assuming sole responsibility for Fallujah as depicted in Figure 6. On December 23, US and senior Iraqi military leaders with advice from local political leaders opened Falluja for resettlement.⁵⁵

⁵⁵ McWilliams and Schlosser, *U.S. Marines in Battle*, 64.

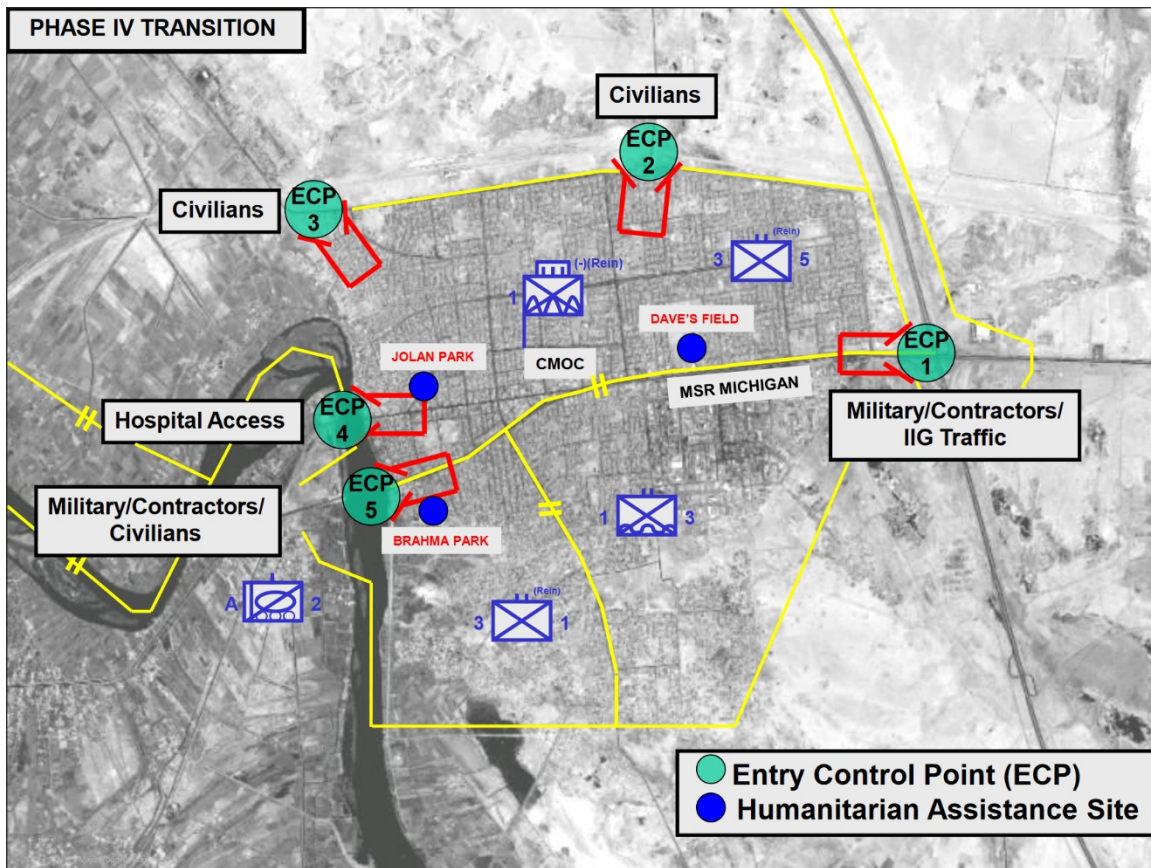


Figure 6. Operation Al-Fajr Transition Operations. Connor Tucker, "A Stepson of Chechnya: A Study of Asymmetrical War in the Modern Era" (Thesis, Colgate University, 2010), accessed 2 February 2019, <http://www.colgate.edu/docs/default-source/default-document-library/ctucker.pdf?sfvrsn=0>.

Operations Vigilant Resolve and Al-Fajr were two vastly different operations in terms of planning and execution. Vigilant Resolve stands as a poor example of both, while Al-Fajr characterizes commanders and staff using time for essential planning, condition setting, execution, and necessary adaptation, all while incorporating the elements of operational art to achieve success.

Regarding analysis, Operation Vigilant Resolve offers little in the way of positive lessons learned. The Marines learned hard lessons regarding poor planning and its obvious outcome and halted operations after roughly a week. No planning and little to no staff examination of the problem took place. I MEF entered Fallujah blind with no guidance other than to locate the perpetrators of the Blackwater contractor murders and bring the city under control. Operation Al-

Fajr offers a stark contrast to Vigilant Resolve. Six months of planning presented the Marines and their US Army and Iraqi counterparts the latitude to apply the relevant elements of operational art to achieve mission success.

As with the previous case studies, the identification of adequate operational reach and subsequent basing facilities played an essential role in Fallujah during Operation Al Fajr. During the initial planning and shaping phases of the operation, I MEF stood up a headquarters facility in the old Camp Fallujah while also constructing the East Fallujah Iraqi Camp for use by their Iraqi Army partners.⁵⁶ I MEF's 1st Force Service Support Group began to stockpile all relevant classes of supply necessary for the mission. The assaulting ground elements entered the fight with fifteen days of on-hand supplies and the I MEF support elements established replacement and replenishment systems for a sustained urban fight. With this they ensured that maneuver forces had the resources required and systems in place to maintain reach and tempo.⁵⁷ The identification of and implementation of a tailored system which enhanced operational reach in a city fight by I MEF planners and commanders armed RCT 1 and RCT 7 with the classes of supply necessary to prosecute the plan. I MEF planners rightly identified increased consumption rates inherent in the slow-moving, high-intensity conflict of urban combat. Likewise, the basing options identified and implemented gave subordinate commanders the flexibility to conduct necessary operational pauses without sacrificing tempo, initiative, or ground thereby preventing culmination. However, just as in most military planning efforts, Operation Al-Fajr planners did not get everything right. In After Action Reviews conducted by both RCTs, leaders found that the marines and soldiers

⁵⁶ Chang, "The Battle of Fallujah," 34.

⁵⁷ Ibid., 35.

had expended 300 percent more munitions than was anticipated by I MEF logisticians, forcing subordinate commanders to pick up the sustainment workload.⁵⁸

Diligent planning not only prevented culmination by any of the RCTs and supporting units, but it also allowed I MEF commander to set the tempo for the duration of Al Fajr. By successfully setting the speed and rhythm of maneuver with the insurgent fighters, I MEF forces never lost sight of the overall objective and endstate. Even when operational pauses were required, or the armored forces outpaced ground maneuver elements, commanders and staffs at all echelons never lost initiative. Exercising control of tempo by reducing or advancing the pace of the operation enabled the commander to buy time and space to make timely decisions and anticipate or react to changes in the environment. This allowed for follow on operations eventually overwhelming the majority of the insurgents in Fallujah.

Identifying objectives that lead to mission success is a difficult task and requires critical thought and planning from both commanders and staffs. A proper objective articulates the commanders intent and must be understood across the formation. They direct the operation toward a “clearly defined, decisive, and achievable goal.”⁵⁹ I MEF and their US Army and Iraqi partners planned for and executed operations against clearly defined objectives. The initial objective of Highway 10, or Objective FRAN served as an easily identifiable terrain feature that allowed both RCTs and their attachments to set their individual unit’s tempo and avoid operational overreach. Objective FRAN served as the I MEF initial march objective, subordinate commanders understood the intent and endstate of the operation and secured identified sub-objectives further facilitating mission success. The 3rd Light Armored Reconnaissance units secured the Fallujah General Hospital to the west of the city as well as two bridges to its

⁵⁸ Michael Evans, “City Without Joy: Urban Military Operations into the 21st Century” (Occasional Paper, Australian Defence College, Canberra, Australia, January 2007), 19; Gott, *Breaking the Mold: Tanks in the Cities*, 96-105.

⁵⁹ Joint Staff, *JP 5-0* (2017), xix.

immediate south. This facilitated both the operational reach of both RCTs by establishing intermediate basing and ensured open lines of communication. Once RCTs 1 and 7 reached Objective FRAN to the far south of Fallujah on November 15, Coalition Forces turned north to begin final clearance operations which lasted for weeks as bypassed fighters and caches remained.⁶⁰

As in the previous case studies, and particularly in urban operations, the arrangement of operations played an important role in Operation Al-Fajr. Following the concepts laid out in *JP 5-0, Joint Planning* and *JP 3-06, Joint Urban Operations*, I MEF's commander and his staff determined the best arrangement of the "joint force, and its component operations to conduct the assigned tasks and joint force mission."⁶¹ In any campaign or operation, the shaping effort has an important impact on the success or failure of the mission. In an effort to minimize civilian casualties psychological operations units within I MEF urged citizens of Fallujah to leave the city by any means available while also disseminating misinformation on the operation to mislead the insurgents. A successful indicator of the information campaign was the low civilian casualty rate. It is estimated that as few as 500 civilians remained in Fallujah once Operation Al-Fajr started.⁶²

As is standard practice in US joint operations, the commanders in Operation Al-Fajr massed both indirect fire and joint air attacks. Their purpose in Fallujah served two ends, the preparation of initial objectives, and as part of the deception plan which was executed in conjunction with the information campaign to fool the defenders in the city to believe the assault would initiate from the south as opposed to the north. As with the information campaign, the success of the shaping fires is evident in the relatively low resistance both RCTs experienced at the initial breach and intermediate objectives. This arrangement of the deception operations in

⁶⁰ Gott, *Breaking the Mold*, 105.

⁶¹ Joint Staff, *JP 5-0* (2017), IV-36; Joint Staff, *JP 3-06* (2013), III-17.

⁶² Chang, "The Battle of Fallujah," 34.

conjunction with a coordinated and well thought out fires campaign stands as an example of good arrangement of operations.

With a proper task organization assigned to each RCT once the assault on Fallujah began, both RCTs and their subordinate and supporting units used light/heavy arrangements to best execute assigned tasks and accomplish the commander's purpose. Both RCTs supported each other while executing simultaneous action at the RCT level of operations and sequential operations within subordinate units. The combination of simultaneous and sequential action enabled I MEF to utilize depth in operation, thus keeping the enemy consistently off balance, and never ceding the initiative. As *JP 5-0* states, “the concept of depth seeks to overwhelm the enemy throughout the operational area, creating competing and simultaneous demands on enemy commanders and resources and contributing to the enemy’s speedy defeat.”⁶³ When analyzing task organization in Fallujah, it is paramount to consider the effect of armored formations in conjunction with dismounted infantry had on the success of Al-Fajr. While operating in tandem with maneuver ground forces, the armored columns provided the Marines with a mobile-protected fire support mechanism that wreaked havoc on insurgent strongpoints and bases of operation. This task organization impacted every element of operational art pertaining to urban combat. The Abrams tanks and Bradley Fighting Vehicles leading the assault formations enabled the speedy maneuver of the infantry units; their mobility contributed to the extension of operational reach by keeping supply lines open, and their armor and firepower aided in the quick seizure of key objectives.

Overall, Operation Al Fajr stands as an example of proper planning and execution of joint operations in an urban environment. Commanders and their staffs assumed risk after the first Battle of Fallujah in the spring of 2004 by taking upwards of six months to plan the second assault and giving the defenders time to prepare for the seizure of the city. The risk was well

⁶³ Joint Staff, *JP 5-0* (2017), IV-37.

worth it; proper planning and application of operational art by I MEF led to a rapid defeat of the majority of insurgents in Fallujah, leading to a transition back to stability operations.

JP 3-06, while again serving as a proper frame for urban operations as it did in Grozny, again falls short when the lessons from Fallujah are applied against a megacity construct. If we apply the three most important elements of operational art which pertain to a megacity (basing, operational reach, and tempo), *JP 3-06* falls short in offering planners and commanders an appropriate foundation with which to conduct a megacity operation.

Though not specifically referencing megacities, *JP 3-06* does address the fact that dense urban battlefields may not provide adequate area to house an all-encompassing support structure such as a Brigade Support Area or a larger Logistics Support Area, and recommends constructing smaller bases for specific support operations.

Conclusion and Recommendations

There exists a contingent of professionals who believe that the basics of urban warfare are enough to cope with urban environments at scale. These professionals in the fields of urbanization, military art, and their relevance to military actions in urban environments espouse a great deal of confidence that megacities do not constitute an anomaly worthy of a doctrinal update. One such professional is Michael Evans, a military and security expert who has written frequently on the subject of megacities, argues: “most fundamentals of urban warfare are likely to remain relevant for general-purpose forces even in a conglomeration on the scale of a megacity.”⁶⁴ Evans posits that the obstacles militaries may face in a megacity comes down to the issue of scale and current doctrine is sufficient to handle the problem. However, given the immense size of a megacity and the full complexity inherent in such an environment requires

⁶⁴ Michael Evans, “The Case Against Megacities,” *Parameters* 45, no. 1 (March 2015): 33-44.

leaders to apply the elements of operational art as they would to a large-scale campaign plan. In essence, a megacity operation is a campaign unto itself.

The elements of operational art and design of basing, operational reach, objectives, and arranging operations weigh heaviest in terms of planning and execution when considering LSCO in an environment as large and complex as a megacity. Though doctrine, specifically *JP 3-06*, make mention of these aspects of planning, planners and practitioners need a more detailed explanation of the proper use and importance to enable better planning and execution. Basing and operational reach alone represent monumental challenges inside of a megacity and disjointed or disaggregated sustainment represents a constant requirement. A doctrinal publication concerning disjointed sustainment inside a megacity that covers past lessons learned and suggested techniques is needed to fill this gap in both experience and knowledge. Training planners and practitioners to think of sustainment capabilities in this context is crucial and needs to be implemented in both course curriculum and large scale training exercises. Identifying key objectives and the subsequent arrangement of operations leading to the accomplishment of those objectives is not unique to megacity operations. The complexity inherent in megacities requires a deeper level of understanding derived from hard critical thinking and analysis. US Army schoolhouses and Combat Training Centers have begun to incorporate this complexity into curriculum and exercise scenarios, but not to the level required. The expansion of urban training areas for practitioners combined with enhanced course curriculum for planners is required to fully begin to understand this complex operational environment.

The importance of combined arms operations inside a megacity during large scale combat cannot be overstated. Proper task organization in terms of appropriate combined arms elements and the identification of an operational reserve must additionally assume high priority during planning for megacity operations. The requirement for mobile protected firepower in the form of armor, infantry, and engineer support to contend with deeply entrenched enemy forces is a constant aspect of successful urban operations. The effectiveness of armored maneuver in

conjunction with infantry and engineer support is readily apparent in any successful large-scale urban operation. As seen most recently in Fallujah during Operation Al Fajr in the deception feints and the assault, armored fire and maneuver served as both a psychological factor and the most effective deterrence against an entrenched enemy. As stated in the 2007 RAND report on operations in Fallujah, “Heavy armored vehicles rumbling down the street unhinged the enemy while boosting the confidence levels of US and Iraqi infantry tasked with the dangerous job of engaging in close-quarter combat.”⁶⁵ This statement succinctly captures the importance of combined arms operations in a city.

The solution to the megacity problem is not the adherence to current joint and US Army doctrine and applying an appropriate scale. Doctrine proves insufficient in describing the complexities and inherent challenges in megacities. *JP 3-06* provides a solid start point, but needs expansion to provide the necessary knowledge and tools to the planners at echelons above execution, but most importantly to the soldiers on the streets, whose task it is to fight in these terrible and exhausting environments.

⁶⁵ Gentile, *Reimagining the Character of Urban Operations for the U.S. Army*, 121.

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