

# Working with What You've Got: US Strategy in Iraq

by

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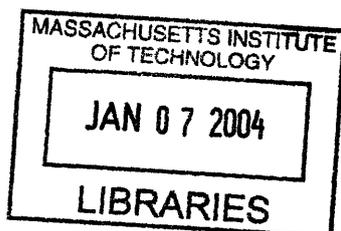
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A state is constrained by the resources it has available. That statement seems so patently obvious that we rarely investigate its implications. Works in the security field have explored how states can enlarge their resources or develop ways to compensate for lesser resources, but little is written on how limited resources drive state behavior.<sup>1</sup> We fail to appreciate how resources can determine strategy. Particular examples of limited resources have been examined in detail like Wilhelmine Germany relying on the Schlieffen Plan because of its perceived inability to fight a two front war.<sup>2</sup> Or, in another prominent example, George Kennan advocating his policy of containment based on the idea that the US did not have the resources to respond everywhere.<sup>3</sup> But, often, the literature ignores how resources can determine military strategy. By undervaluing resources in determining strategy, we often fail to fully understand why strategies are chosen and thus work from flawed models.

Although resources are not the only determinant of strategy, they are the central determinant when resources are limited. In this paper, I will demonstrate the primacy of limited resources in determining strategy by examining how US military resources drove strategy in the occupation of Iraq after May 1, 2003. By correlating the available tactical options to resources available, I will show how large a role limited resources play. First, I will express the role resources have in determining strategy. Although often ignored in

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<sup>1</sup> See John Mearsheimer, *Conventional Deterrence* and Barry Posen, *Sources of Military Doctrine*. Both works discuss how the pressures of the international system force states to innovate their strategy and doctrine to most effectively use their resources. Jonathan Shimshoni also stresses how states can endogenously affect “advantages” through “military entrepreneurship.” Jonathan Shimshoni, “Technology, Military Advantage, and World War I,” in Steven E. Miller, Sean M. Lynn-Jones, and Stephen Van Evera, eds. *Military Strategy and the Origins of the First World War*, (Princeton, NJ: Princeton University Press, 1991), 134-162.

<sup>2</sup> Gunther E. Rothenberg, “Moltke, Schlieffen, and the Doctrine of Strategic Envelopment,” in Peter Paret, ed. *Makers of Modern Military Strategy*, (Princeton, NJ: Princeton University Press, 1986), 296-325.

<sup>3</sup> See John Lewis Gaddis, *Strategies of Containment*, (New York: Oxford University Press, 1982) for a discussion of Kennan’s justification of his strategic policy, especially pp. 28-33.

the literature, limited resources force ends to adjust to means. Then, I will offer two historical examples that illustrate the importance of resource limits on strategy. In both examples, the ends were adjusted to the means instead of finding the means for the most desired ends. Based on this background, I will demonstrate how limits on American resources determine US strategy in Iraq. To assess this problem, I will first describe abstracted requirements for counterinsurgency tactics. Once these requirements are set out, I will attempt to quantify US force available for Iraq and then, finally, reconcile what is available with what different strategies require. By showing how the US ends must match its means, I can offer a prediction for what strategy the US will likely pursue. This will allow me to compare what appears to be current US strategy with what this analysis predicts.

The US strategy in Iraq is a strong example of how resources are a primary determinant of strategy. Despite being the richest nation-state ever known, the US has limited military resources, albeit by choice. Because its resources are limited, US strategy in Iraq is bounded in its possibilities. The US must pursue a cautious strategy that can neither completely smother the insurgency nor invest in wholesale methods to destroy the insurgency. When resources are limited, they are central to understanding chosen strategies.

### *Resources Role in Strategy*

When discussing strategy, authors generally assume resources will be found to support the strategies they advocated. Or, authors accept the resources available at face

value and do not investigate the impact these limitations played on the choice of strategy. Because of the centrality of resources when limited, these assumptions undermine our understanding of strategy development. We must note the role resources play if we are to grasp how strategy is determined.

Like most authors, Carl von Clausewitz does not concentrate on resources when considering how strategy develops. But, he provides the background for understanding why resources are vital: “What is really admirable is the King’s [Frederick the Great in the campaign of 1760] wisdom: pursuing a major objective with limited resources, he did not try to undertake anything beyond his strength, but always *just* enough to get him what he wanted.”<sup>4</sup> Furthermore, he provides a valuable definition of what resources affect strategy. He cites five elements of strategy; “moral, physical, mathematical, geographical, and statistical.”<sup>5</sup> For our purposes of how resources affect strategy, the most pertinent is the physical. He describes physical as that which “...consists of the size of the armed forces, their composition, armament, and so forth.” To some degree, his statistical element is also important because by statistical he means the support and maintenance necessary to furnish an army. In this listing of the composite elements of strategy, he defines what physical resources affect strategy - what the size and capability of the army is. In this paper, I will focus on the physical elements and concentrate on manpower as a resource.

Despite acknowledging their importance, Clausewitz spends little time investigating the consequences of limited resources. In defending his approach, Clausewitz also characterizes the reason for the dearth of interest in the effect of

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<sup>4</sup> Carl von Clausewitz, *On War*, Michael Howard and Peter Paret, trans. (Princeton, NJ: Princeton University Press, 1976), p. 179 (italics original)

<sup>5</sup> Ibid, pp. 183.

resources on strategy well: “[Critics] reduce everything to a few mathematical formulas of equilibrium and superiority, of time and space, limited by a few angles and lines. If that were really all, it would hardly provide a scientific problem for a schoolboy.”<sup>6</sup> Clausewitz means that if strategy is simply a matter of “bean counting,” then there is little need to study the subject. For this reason, Clausewitz consistently prefers to emphasize what he calls the “moral” elements of strategy throughout his masterwork.

However, if we ignore analyses of resources, we fail to understand a primary determinant of strategy, particularly when resources are limited. Sir Basil H. Liddell Hart more clearly states the relation between resources and strategy; “Strategy depends for success, first and most, on a sound *calculation and co-ordination of the end and the means.*”<sup>7</sup> Following Clausewitz’s famous dictum, Liddell Hart advocates that states provide the necessary resources to achieve their goal. It follows that one’s end must not overextend one’s means. Thus, we find him arguing that strategy is determined by resources.

He states this argument more clearly when he lists the positive aspects of strategy: “*Adjust your end to your means.* In determining your object, clear sight and cool calculation should prevail. It is folly ‘to bite off more than you can chew,’ and the beginning of military wisdom is a sense of what is possible. So learn to face facts while still preserving faith.”<sup>8</sup>

In this section, we find Liddell Hart’s most complete expression of the idea that resources do determine the strategies possible. The section is taken from his eight “axioms” of the concentrated essence of strategy. Liddell Hart here clearly formulates the idea this paper

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<sup>6</sup> Ibid, pp. 178

<sup>7</sup> Sir Basil H. Liddell Hart, *Strategy*, (New York: Praeger, 1967), pp. 336 (italics original).

<sup>8</sup> Ibid. pp. 348.

addresses. He acknowledges that resources often come first and from their availability, strategy must be determined. Even if the commander or political leaders have dreams for a more robust political goal, the available resources will limit what strategy can be chosen. Therefore, even if resources are not the sexiest aspect of strategy, they are a vital one.

One example in the literature that acknowledges the importance of resources in determining ends is Bruce Hoffman and Jennifer Taw's work *Defense Policy and Low-Intensity Conflict*.<sup>9</sup> They focus on gleaning why Britain waged successful counterinsurgencies in the mid-twentieth century examining Britain's involvement in Malaya, Kenya, and Cyprus. However, for this task, they had to acknowledge that the fiscal restrictions Britain faced at the time played a large role in determining the successful strategies: "The development of small, highly equipped forces to contain local short-term conflicts and to police Britain's remaining colonial territories was the logical solution to resource and manpower shortages."<sup>10</sup> Although they primarily look at the tactics and strategy Britain developed, they maintain the importance of resources in determining how that strategy was arrived at. This work provides an example demonstrating why we must consider the impact of resources and not just the political and other determinants of strategy.

Resources are not the only determinant of strategy, but they are an important one. Many other aspects determine the best strategy including terrain, personality, domestic political concerns, and logistics. But, if resources are limited, they play an ever larger role. Authors have generally ignored resources' role, but in this paper I will argue for

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<sup>9</sup> Bruce Hoffman and Jennifer M. Taw, *Defense Policy and Low-Intensity Conflict: The Development of Britain's "Small Wars" Doctrine During the 1950s*, (Santa Monica, CA: RAND, 1991).

<sup>10</sup> *Ibid.* pp. 14.

their importance. By analyzing what means are possible, we can predict what ends are possible.

### *Historical Examples*

Before addressing the case study of this paper, I offer two examples of how resources have been the primary determinant in strategy. By defining the role of resources and then illustrating examples of how central resources can be, I offer historical analogies for how ends have been adjusted to means and lay the framework for the primary case study.

In the original edition of the Army's FM 100-5, *Operations*, the US Army faced a situation where resources were a primary determinant of strategy. Believing the Soviet Union had a numerical advantage, the US had to acknowledge that their limited resources were key in shaping their strategy. As the manual states, the US has rarely faced situations in which its strategy was limited by resources -- "This circumstance is unprecedented: we are an Army historically unprepared for its first battle. We are accustomed to victory wrought with the weight of materiel and population brought to bear after the onset of hostilities."<sup>11</sup> But in the original 100-5, the Army's strategy is predicated on an expected lack of resources -- "Forward deployed forces, and those reinforcements immediately available, must therefore be prepared to accomplish their missions largely with the resources on hand."<sup>12</sup> The first section of the *Operations*

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<sup>11</sup> US Army Field Manual 100-5, *Operations*, July 1976, 1-1.

<sup>12</sup> *Ibid.* 1-2.

manual follows the idea found in Liddell Hart: an acknowledgment that resources will determine the strategy the US Army intended to use on the battlefield.

The manual offers an historical example of how strategy can be determined primarily by resources. Preparing to fight the Warsaw Pact, the US credited them with an incredible defense-industrial base. The Soviet Union and its allies dedicated a much greater proportion of its nation's wealth to arms and armies. The manual also rightly notes that the Soviet Union enjoyed proximity to the battlefield. Whereas the US would have to supply its troops across the Atlantic, the Soviet's lines of communication could extend directly from Moscow to the Fulda Gap. Moreover, the Soviets had the time to prepare these routes, a critical advantage. As the manual itself says; "[Our forces] must anticipate combat against forces with ultra-modern weapons, greater numbers, and nearby supply sources."<sup>13</sup>

Believing its troops to be outnumbered, the Army developed a doctrine to mitigate these weaknesses. It states: "Changes in intensity and lethality of modern battle and the need to fight outnumbered present the US Army with challenges greater than those faced on previous battlefields."<sup>14</sup> To address this problem, the Army relied on success at the lowest tactical level rather than a larger strategic method of victory. Only by attriting the enemy at the tactical level could the US overcome its theater limitations.

The original FM 100-5 is an interesting manual because its intended audience spans the range from theater commanders down to company commanders. Even as it provides advice for young captains on how to maneuver each of their vehicles and troops,

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<sup>13</sup> Ibid. 1-2.

<sup>14</sup> Ibid. 3-1.

it directs generals how to shape the entire battlefield. The manual takes this broad scope to ensure all levels of command were marshaled to mitigate numerical inferiority.

For success, the manual lists four “prerequisites;”

1. Adequate forces and weapons must be *concentrated* at the critical times and places.

The combination is combat power.

2. The battle must be *controlled* and *directed* so that the maximum effect of fire and maneuver is concentrated at decisive locations.

3. The battle must be fought using *cover, concealment, suppression, and combined arms teamwork* to maximize the effectiveness of our weapons and to minimize the effectiveness of enemy weapons.

4. Our teams and crews must be *trained to use the maximum capabilities of their weapons*.<sup>15</sup>

While summing up the Army’s entire strategic doctrine, the manual lists the performance of “teams and crews” – the smallest tactical unit in the Army – as one of four keys to winning battles. Building on its four prerequisites focus on maximum effect and minimal exposure, the manual emphasizes the need to protect our resources, vehicles and troops, and destroy completely and efficiently the enemy’s. Generals are prompted to “*bring about a winning concentration of force at the point of actual combat.*”<sup>16</sup> They must do so in order to give their subordinates the greatest chance to achieve tactical destruction. Colonels, then, are adjured to “coordinate the concentration of firepower.”<sup>17</sup> They must do so in order to best direct their subordinates firepower. Finally, captains are responsible for ensuring their subordinates destroy the enemy as effectively and

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<sup>15</sup> Ibid. 3-3.

<sup>16</sup> Ibid. 3-5.

<sup>17</sup> Ibid. 3-9.

efficiently as possible: “Above all, he must lead and train his men decisively so that they know he will accomplish the unit mission by inflicting maximum casualties on the enemy while minimizing his own losses.”<sup>18</sup> Through this chain of responsibility, the doctrine sets out how to overcome the limited resources and achieve success.

Although I have insisted the motivation behind these appeals is the Army’s expected limited resources, such motives are certainly applicable in any combat situation. They are interesting only because they are not just motivations for subordinates, but the overall strategy for how to win. The plan to win does not depend on ensuring the fighting forces always have greater materiel and an unrelenting rush of personnel. The plan to win does not depend on an innovative strategic maneuver. The plan to win does not depend on surprise. Instead, the plan to win is based solely on success at the lowest tactical level in order to create a more favorable balance of forces. It is for this reason, that this manual and the doctrine implementing its strategy illuminate how decisive resources can be. If we were to ignore the importance of resources in determining ends, we would not understand why this strategy was chosen.

The North Burma Campaign in World War II is another example of how resources drove strategy and the means affected the ends. All observers note the lack of resources devoted to the theater. Furthermore, most observers recognize the innovative strategy developed in the North Burma campaign of enveloping the Japanese forces by depending on air supply. But, the connection between the two is rarely drawn and thus prevents our full understanding of how strategy develops.

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<sup>18</sup> Ibid. 3-11.

The China-Burma-India (CBI) theater was a low priority for the Allies throughout the war. Originally, the theater suffered because of the dramatic Japanese offensives and the Allies unpreparedness. For the US, Europe was the first priority;

“The basic factor controlling the support that [Lieutenant General Joseph W.] Stilwell’s American superiors would extend to his efforts to assist China was the American decision to make the principal US effort in the Atlantic area. Stilwell’s theater, therefore, with the exception of transport aircraft, received little in the way of supplies and manpower from the United States; to a great degree Stilwell was left to carry out his mission with what resources he could conjure up in China and India.”<sup>19</sup>

As the Allied war machine came into its own in 1943, the CBI Theater suffered because of the recalcitrance of Chiang Kai Shek and the poor strength of the Chinese Army. As Ronald Spector describes: “Having agreed to a major offensive in Burma, Chiang subsequently devoted his energy and ingenuity to getting out of it.”<sup>20</sup> Chiang Kai Shek’s continuing evasion caused the US to continue to lower the CBI priority;

“Had the Chinese been zealous and industrious in preparations for a campaign in Burma, had they accepted and carried out Stilwell’s suggestions for a potent Chinese Army of sixty divisions, and had the Generalissimo in March 1943, against whatever odds, crossed the Salween River into Burma, the United States would have been morally obligated to support the Chinese in projects it had persuaded them to undertake...But the Chinese had not thought in those terms, the months had gone past, and now American planners were beginning to conclude that they could defeat Japan without Chinese bases and without a rejuvenated Chinese Army.”<sup>21</sup>

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<sup>19</sup> Charles Romanus and Riley Sunderland, *Stilwell’s Command Problems*, (Washington, DC: Office of the Chief of Military History, Department of the Army, 1956), pp. 4.

<sup>20</sup> Ronald H. Spector, *Eagle Against the Sun*, pp. 340.

<sup>21</sup> Romanus and Sunderland, pp. 55.

And finally, as Stilwell gained some success in training the Chinese troops, the Allies again discounted the Theater because of the greater success of the Pacific campaign and its threat to Japan. The CBI Theater would never become an important priority for the Allies.

Because of this continuing low priority, the CBI Theater was chronically under resourced. As Stilwell put it; “Peanut [Chiang] and I are on a raft, with one sandwich between us, and the rescue ship is heading away from the scene.”<sup>22</sup> In the entirety of the war, only one brigade of US infantry, Merrill’s Marauders, was assigned to the theater.

However, at least initially, planners expected to conduct operations similar to those carried out in other theaters. Namely, large-scale operations that extended front lines and controlled territory. Stilwell certainly envisioned large-scale operations at the outset.<sup>23</sup> These plans were supported by the US Navy as well and at the Casablanca Conference, an operation to retake all of Burma was proposed codenamed ANAKIM.<sup>24</sup> ANAKIM involved amphibious operations and a goal of retaking Rangoon, Burma while the Chinese forces would cross overland from the east leading to the conquest of all of Burma. A year later at the Sextant Conference, another large scale operation was considered codenamed BUCCANEER.<sup>25</sup> Again, this plan called for an amphibious operation on the Burmese coast and a Chinese assault across the Salween River. Under both of these operations, the Allies would make a concerted effort to recapture all of Burma and steadily destroy the Japanese forces. However, each time, the Allies decided not to invest the resources necessary for success and the operations never took place.

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<sup>22</sup> Barbara W. Tuchman, *Stilwell and the American Experience in China, 1911-1945*, (New York: The Macmillan Company, 1970), p. 345.

<sup>23</sup> Spector, p. 340.

<sup>24</sup> Spector, pp. 342.

<sup>25</sup> Romanus and Sunderland, pp. 63-66.

Instead, the CBI Theater was involved in much smaller operations. One success was the Long Range Penetration Groups (LRPGs) fielded under Brigadier Orde Wingate. Originally intended to provide diversion for the large scale offensives, these brigades were still inserted after the offensives were called off.<sup>26</sup> The Japanese had achieved much of their success by relying on infiltrating through the jungle and encircling their enemy. Unattached to lines of communication, these LRPG brigades could now attack the Japanese rather than withdraw when encircled. Although these brigades suffered severe casualties, they succeeded in defeating the Japanese at their own strategy. Merrill's Marauders, the only American unit in the CBI Theater, was based on these LRPGs.<sup>27</sup> Not being tied to fixed front lines, these units became skilled at enveloping maneuvers.

Besides LRPGs, the other success in the theater was air supply. Faced with the difficulty of supplying units over ground, troops began to be supplied by air. First, in 1942, refugees were supplied by air. Then, in 1943, the LRPGs were air supplied and eventually outposts and far flung stations were air supplied. By the end of the year, quartermaster units were permanently organized to conduct air supply.<sup>28</sup>

For the North Burma campaign at the start of 1944, Stilwell combined the two tactics of envelopment and air supply.<sup>29</sup> Throughout the course of the campaign, Stilwell maneuvered his subordinate units, the two Chinese divisions he commanded and the American brigade, unattached to traditional lines of communication. By using air supply, Stilwell turned Japanese attempts at encirclement into disaster. Rather than being cut off,

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<sup>26</sup> Spector, pp. 347-348.

<sup>27</sup> Romanus and Sunderland, pp. 34.

<sup>28</sup> Romanus and Sunderland, pp. 95-98.

<sup>29</sup> The fullest account of these operations is Romanus and Sunderland, chapters 4, 5, and 6.

air supply allowed his troops to envelop the now deployed Japanese. By the end of June 1944, Stilwell's forces had defeated the Japanese forces in the Mohaung valley creating the opportunity for the capture of the key town, Myitkyina. An unexpected triumph when it fell, Stilwell had achieved a strategic goal of providing a base to intensify the air effort to and from China.<sup>30</sup> Stilwell's winning strategy was determined by the resources available: "His [Stilwell's] estimate of what he could do with the means his several superiors had allotted him began to shrink drastically."<sup>31</sup>

If the resources had been available to the theater, Stilwell and the Allies would have conducted the larger operations they initially planned. Rather than operating freely in the jungle, they would have staged large amphibious operations and used the scores of Chinese divisions from the east to steadily proceed on a more traditional strategy of seizing terrain. Most observers note the lack of resources in the theater and most observers acknowledge the creative and unexpected strategic success. But, they do not clearly tie them together. The strategy was determined by the lack of resources. As brilliant as Stilwell and the strategy were, it would not have been used if greater resources were available. Stilwell and his men deserve great credit for achieving their objectives with their limited resources, but the strategy would not have been chosen just to be brilliant if adequate land and seapower had been available. Instead, the ends would have grown with larger means. The North Burma campaign is another example of how strongly resources determine strategy, yet that aspect in the campaign is generally overlooked. We must acknowledge the importance of limited resources if we are to fully understand how strategy develops.

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<sup>30</sup> Romanus and Sunderland, pp. 256.

<sup>31</sup> Romanus and Sunderland, pp. 204.

These two historical examples explicate the importance of resources, yet we continue to undervalue resources' role in determining strategy. In Iraq, the US has political goals and what military strategy best achieves these goals is hotly debated. In this paper, I argue that we can best understand US strategy only by examining what the available resources allow the US to do. If we ignore the available means, we can not grasp the possible ends. To demonstrate this assertion, I will attempt to set out the requirements necessary for the military aspects of counterinsurgency strategy and then determine which requirements the US's resources can fulfill. I believe the strong correlation from this single determinant will show how important resources are.

### *A Categorization of Counterinsurgency Tactics*

To understand the requirements of the Iraqi counterinsurgency, we must examine the nature of counterinsurgency tactics. At the widest level, Gil Merom describes three strategic methods: eliminating the popular base of insurgency, isolating the guerilla forces from the popular base, and surgically eradicating the military of the guerillas.<sup>32</sup>

Merom immediately points out; "The strategy of national annihilation is rarely used these days." Because of its indiscriminate nature, few modern Western states tolerate a military strategy of eliminating whole peoples. The *Convention on the Prevention and Punishment of the Crime of Genocide* exemplifies the Western attitude. Article 2 defines genocide as;

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<sup>32</sup> Gil Merom, *How Democracies Lose Small Wars*, (Cambridge: Cambridge University Press, 2003), p. 34- 42.

“In the present Convention, genocide means any of the following acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such: (a) Killing members of the group; (b) Causing serious bodily or mental harm to members of the group; (c) Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part; (d) Imposing measures intended to prevent births within the group; (e) Forcibly transferring children of the group to another group.”

These points circumscribe methods like the Athenian extermination of the Melian adult male population cited by Merom. Merom does offer several current examples of such tactics. He cites Iraqi repression of the Kurds and Southern Shiites, Chinese repression of Tibetan nationality, and Indonesian subjection of East Timor. These tactics are not available to liberal states. Because this method is considered unacceptable, I will not address its tactical requirements in this paper.

Counterinsurgents also attempt to separate guerillas from their political base with less extreme measures than annihilating the civil population. Isolation can be done either benevolently or coercively. Benevolent methods generally rely on offering better political and social treatment than the guerillas can provide. Often, military forces will be used to carry out these tasks. For example, the 2<sup>nd</sup> Battalion, 37<sup>th</sup> Armor Regiment, 1<sup>st</sup> Armored Division in Baghdad allocated funds to build soccer fields in an attempt to decrease local support for insurgents.<sup>33</sup> However, although military forces do carry out benevolent policies, these are not usually tactical missions and do not require the specific skills of military forces. Coercive isolating does depend on military operations and tactics. The two forms of isolation are not mutually exclusive. As Merom states;

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<sup>33</sup> Roger Maynulet, “Company Operations During the Establishment of Stability Operations in Baghdad,” *Armor Magazine*, (Jan/Feb 2004), p. 32.

“Furthermore, benevolent and coercive methods are not necessarily incompatible.”<sup>34</sup>

However, I will focus below only on coercive methods because they require military forces and cannot be contracted out to other organizations like humanitarian Non-Governmental Organizations or civilian administrators.

Military forces generally prefer focusing on the third strategy, targeting guerilla military power, because it more closely approximates traditional conventional warfighting tasks than the more political tasks of dealing with the civil population. By attempting to destroy the enemy’s fighting forces or command, the military can use purely military means to defeat the insurgents. However, this strategy is generally frustrated by the unconventional nature of guerilla warfare, which is chosen precisely because the insurgents cannot face the security forces in a conventional battle.

Nevertheless, most counterinsurgency strategies will include an attempt to militarily face the insurgents.

Although Merom sets out a solid framework for understanding possible strategies, he focuses on how brutality can defeat insurgencies and why democracies cannot use such brutality.<sup>35</sup> However, short of annihilation at the Melian level, most authors recognize that counterinsurgency success depends on executing the other strategies with a balance of military and political means. Sir Robert G.K. Thompson sets out five keys to success; 1) a clear political aim, 2) all government forces abide by the highest civilized standards, 3) a coherent, overall strategy guides all actions, 4) organization, and 5) public

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<sup>34</sup> Merom, pp. 38.

<sup>35</sup> Merom, p. 15.

relations.<sup>36</sup> Thomas Mockaitis suggests the balance is achieved through his three principles of minimum force, civil-military coordination, and tactical flexibility.<sup>37</sup>

Specifically investigating the Iraq counterinsurgency, Robert Tomes reviews three canonical authors of counterinsurgency: Roger Trinquier, David Galula, and Frank Kitson.<sup>38</sup> He cites several principles as keys to success. First, counterinsurgents must recognize the asymmetric relationship they face against insurgents and highlight the need to subordinate military goals to political goals. Second, intelligence is the critical enabler to bring forces into contact with insurgents. Third, insurgent political causes are not static and counterinsurgents must constantly adjust to minimize their appeal. Fourth, forces must acknowledge the interdependence of factors – “economic, political, psychological, and military.” And finally, counterinsurgents must win the minds of the populace by addressing underlying socio-economic problems.

Tomes also notes the lack of academic work on counterinsurgency warfare; “Little attention has been paid to the theory and practice of counterinsurgency warfare in mainstream security studies journals.”<sup>39</sup> This statement is even more true of the tactical aspects of counterinsurgency practice. In all of the keys to success examined above, the principles focus on the political battleground. When they do consider military means, they primarily echo the need to limit military operations and prevent the military from foiling political gains. Both Mockaitis and Thompson list restraint in force as vital. Tomes suggests the military can occupy territory and separate insurgents from the people.

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<sup>36</sup> Sir Robert G.K. Thompson, “Regular Armies and Insurgency,” in Ronald Haycock, ed. *Regular Armies and Insurgency*, (London: Croom Helm, 1979) pp. 10-11

<sup>37</sup> Thomas Mockaitis, *British Counterinsurgency in the Post Imperial Era*, (Manchester, England: Manchester University Press, 1995), pp. 2.

<sup>38</sup> Robert R. Tomes, “Relearning Counterinsurgency Warfare,” *Parameters*, (Spring 2004) p. 26-27.

<sup>39</sup> *Ibid.* p. 16.

But, short of massing troops and using intelligence, he does not explore how this isolation is to be achieved. In this sense, all these authors are focused on the traditional need for counterinsurgencies to “win the hearts and minds” while battling insurgents. Like usual, none of the authors examine the tactical aspects of the problem.

The US military also begins its discussion of counterinsurgency in broad terms acknowledging the importance of military subordination to political ends. In FM 90-8, the US Army describes counterinsurgency;

The government's weapon to combat insurgency is counterinsurgency (COIN). The COIN mission includes a full range of measures used by a government to free and protect its society from subversion, lawlessness, and insurgency. They are actions taken by a nation to promote its growth by building viable institutions (political, military, economic, social) that respond to the needs of the people<sup>40</sup>

In discussing the application of Army doctrine, the manual goes on to say “It [The Army] must contend not only with military considerations in this environment but with the political, economic, and social considerations which may oftentimes outweigh military considerations” and “The final resolution will not be by military means, but by political, social, and economic action. With this in mind, successful military operations are a means to an end.”<sup>41</sup> The manual goes on to outline tactical operations a combat brigade may undertake, but constantly returns to the political aspects.

Certainly, work on counterinsurgency is correct to focus on the junction of political and military coordination and cohesion. Following Clausewitz’s famous dictum, no military success is worthwhile if it does not produce the desired political end. However, the literature’s focus has left a hole in examining the military tactics. To

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<sup>40</sup> US Army FM 90-8, *Counterinsurgency Operations*, Ch. 1, Section III.

<sup>41</sup> Ibid. Ch. 1, Section V, 1-16 and 1-20b.

determine how resources may determine the military strategies chosen in a counterinsurgency fight, I code counterinsurgency tactics. I can then determine what resources each tactic requires and determine if the US has enough to use that tactic in Iraq. Although clearly articulated political aims, organization, and intelligence are necessary for a successful counterinsurgency operation, they are not necessarily dependent on manpower. Military forces do deliver these necessities, but the resources integral to their success are not the size of the military forces available. Political aims must be defined clearly by the strategic leaders of a state regardless of the size of force used. Organization is also applicable to either small or large forces. And intelligence may be greatly benefited from a large military force, but it is more greatly affected by technological ability and even more importantly a relationship with the population that encourages people to provide security forces information.

I categorize possible tactics into three areas; occupation, masking, and raids. Following Merom's analysis above, these three tactics fit into his latter two methods; isolating insurgents from their base and attacking solely military targets. Both occupation and masking primarily aim to separate insurgents from the people militarily. Raids aim to destroy military objectives of insurgent forces, command, or military supplies. None are exclusive from each other. Throughout the area of operations, a force can occupy and then mask or raid in specific locations. Or a force can combine a masking operation with a raid to make both more effective. Additionally, one tactic may also feed another. Occupation also provides a great way to gather the intelligence necessary for successful raids, and obviously eradicating an insurgent stronghold lessens the need to mask it. Nevertheless, they are unique and so are best examined separately.

Once separated, they can be combined again. In this way, a raid can become an attack that aims to penetrate an unheld area and insert an occupation. In many ways, the troop requirements may overlap. But, by examining them as distinct concepts, we can better appreciate the resources they require.

Before examining each tactic, I must first describe the insurgency faced by the US in Iraq to give us a physical basis on which to determine how the tactics might be applied and what requirements they have.

#### DIFFICULTY OF URBAN AREAS

For an insurgency to prosper, it depends on its environment. An insurgency generally requires the use of guerilla operations which work only when not tied to a specific source of supply and can easily be sustained without concentrated logistics. As Merom describes it; “Guerilla warfare, by relying on small independent formations, and on supply and shelter from an existing, widely decentralized infrastructure – the general population – can avoid much of the burden [of conventional forces], as well as a single knockout blow.”<sup>42</sup> Traditionally, insurgencies have prospered most where the terrain provides a great deal of cover and concealment, like the thick jungle canopy of Southeast Asia. In such terrain, guerillas can stage operations and then quickly disappear, hide their military effects, and exfiltrate undetected or blend into the local population. As Frank Kitson describes; “Sometimes their [guerillas] disappearance is achieved by the physical process of movement into an area of thick cover such as a jungle, and at other times by merging into the population.”<sup>43</sup> Open terrain hampers this elusiveness because of the

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<sup>42</sup> Merom, p. 34.

<sup>43</sup> Frank Kitson, *Low Intensity Conflicts*, (Harrisburg, PA: Stackpole Books, 1971), pp. 95

greater scope of observation. Insurgents can not stage attacks because their preparatory moves and withdrawal routes can be tracked and reinforcing units can pursue and corner them. Situated primarily in the desert, Iraq does not have the dense terrain necessary for guerillas to achieve their dispersal.

The open terrain also favors US technological might. As Barry Posen describes in his article "Command of the Commons," the US is almost unassailable in open terrain where it can bring its tanks, airpower, and other modern weaponry to bear.<sup>44</sup> However, he also points out that there are certain areas the US still does not dominate. Specifically, he notes that the US does not dominate land warfare where modern tanks can not operate such as in cities, mountains, jungles, and marshes. By taking advantage of these restricted terrains, US foes can significantly reduce the US military advantage.

In Iraq, urban environments are the only real restricted terrain. Although the Tigris and Euphrates are major rivers, Iraq is situated in the Syrian and Al Hajarah deserts and does not have much jungle.<sup>45</sup> The only mountains are on the northern border with Iran and Turkey and are mainly populated by the US friendly Kurds. Iraq does have some marshes in the south, but these marshes were significantly destroyed by Saddam Hussein in the mid-90s to retaliate against a Shiite uprising.<sup>46</sup> Since the ground war, these marshes have been partially restored, but a lack of water has prevented a return to their original size so they make up only a small portion of the country.<sup>47</sup> Iraq's river valleys also provide some limitations as three Army Captains describe;

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<sup>44</sup> Barry Posen, "Command of the Commons," *International Security*, Vol. 28, No. 1 (Summer 2003), pp. 5-46.

<sup>45</sup> See Appendix A for a physical features map of Iraq developed by the Central Intelligence Agency.

<sup>46</sup> Tim Hirsch, "Iraq Marshes Vanishing," BBC News, March 22, 2003, [http://news.bbc.co.uk/1/hi/world/middle\\_east/2875311.stm](http://news.bbc.co.uk/1/hi/world/middle_east/2875311.stm)

<sup>47</sup> Caroline Hawley, "New Hope for Iraq's Marsh Arabs," BBC News, November 5, 2003, [http://newswww.bbc.net.uk/2/hi/middle\\_east/3244571.stm](http://newswww.bbc.net.uk/2/hi/middle_east/3244571.stm)

“Besides palm groves and farmland, the Tigris, Euphrates, and Diyala Rivers further divide the country. Additional obstacles include large concrete canals, some as wide as 6 meters and as deep as 4 meters. Additionally, farmers have cut numerous canals and irrigation ditches throughout the land, few of which are represented on maps; on imagery it is impossible to tell the extent of the irrigation. Cross-country travel, although possible in the area, is limited by both the thick palms and irrigation canals.”<sup>48</sup>

But, these obstacles neither provide a covert enough haven for the insurgents nor limit the US’s maneuverability and firepower to respond.

In contrast to these open areas, Iraq has significant urban centers. Seventeen Iraqi cities have populations over 200,000. Three of these have populations over 1,000,000 and an additional nine cities have populations between 50,000 and 200,000. Within these large urban areas, the US military is constrained and unable to take advantage of its technological superiority. The Director of the Marine Corps Urban Warrior program, COL Mark Thiffault describes the situation as;

"Our enemies, having watched Desert Storm on CNN, know they cannot engage the United States with conventional methods. These potential foes view cities as a way to limit the technological advantages of our military. They know that cities, with their narrow streets, confusing layout and large number of civilian non-combatants, place limits on our technological superiority and especially our use of firepower.”<sup>49</sup>

Given the US military advantages, foes can only withstand the US military in Iraq by engaging US forces in urban areas.

The Iraq war has borne out this conclusion. During major combat prior to May 1, 2003, the only battalion to receive significant casualties was the 1<sup>st</sup> Battalion, 2<sup>nd</sup> Marine

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<sup>48</sup> Captains Donald Stewart, Brian McCarthy, and James Mullin, “Task Force Death Dealers: Dismounted Combat Tankers,” *Armor Magazine*, (January-February 2004), p 9.

<sup>49</sup> COL Mark Thiffault, Director, Joint Information Bureau, Urban Warrior, <http://www.defenselink.mil/specials/urbanwarrior/>

Regiment fighting in the town of An Nasiriyah with a population of 587,000.<sup>50</sup> On March 23, 2003, they suffered 14 hostile fire deaths. At least one of these deaths is listed as friendly fire – likely from an Air Force A-10 strike.<sup>51</sup> However, the incident and remaining casualties highlight the difficulties of urban combat. Additionally, the Marines have also suffered the greatest casualties of US forces during the occupation phase in urban areas. In April of 2004, the Marines faced increased insurgent activity in several towns west of Baghdad. The 2<sup>nd</sup> Battalion, 4<sup>th</sup> Marines suffered 10 dead in Ramadi on April 6 and the 1<sup>st</sup> Battalion, 5<sup>th</sup> Marines lost seven in three days in Fallujah. Only in urban centers have US troops lost significant casualties in short periods of time.

In the post conflict stability operations, even Improvised Explosive Device (IED) ambushes usually occur on convoys and troops on main roadways in the limited terrain of urban areas;

“Typically, the enemy chooses to stage attacks from areas which have access roads, buildings, overpasses or thick brush along MSR (Main Supply Routes) and auxiliary supply routes (ASR). The enemy tends to use the cover and concealment provided by buildings, overpasses and brush when attack, then uses nearby access roads for a hasty escape.”<sup>52</sup>

These tactics exemplify guerilla operations. Captain Chad Foster also notes how the insurgents prefer urban terrain; “These attacks occur in restricted urban terrain that our forces cannot avoid, and the proximity of civilian residences and businesses

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<sup>50</sup> Casualty figures are taken from Iraq: Coalition Casualties, <http://lunaville.org/warcasualties/Details.aspx>

<sup>51</sup> “Friendly Fire Marred Iraq ‘Battle,’” CBSNews.com, March 29, 2003, <http://www.cbsnews.com/stories/2004/03/29/iraq/main609179.shtml>

<sup>52</sup> James A. Capabianco, “IEDs: Enemy Steps Up Attacks Using Improvised Explosive Devices,” *Infantry Magazine*, (Winter 2003) p. 21. As of March 2004, the majority of casualties were caused by improvised explosive devices. Coalition Provisional Authority, Force Protection Working Group, January 16, 2004, [www.siri-us.com/IEDBrief.ppt](http://www.siri-us.com/IEDBrief.ppt) and Thom Shankar and Eric Schmitt, “GI Toll is Rising as Insurgents Try Wilier Bombs and Tactics,” *New York Times*, March 15, 2004. See “In Major Sections of Iraq, Insurgents Rule the Roads,” *Los Angeles Times*, April 20, 2004 for a view of insurgent threats to roads outside of urban areas.

mixed with the inability to easily identify targets preclude using maximum firepower in most instances.” Relying on at least the tacit support of the urban population, the guerillas have the cover and concealment as well as the support necessary for a successful insurgency. For our purposes, Iraq’s insurgency is solely an urban phenomenon.

#### INSURGENT STRENGTH

The strength of the insurgency is only vaguely understood. In November 2003, General John Abizaid, commander of Central Command, declared that there were less than 5,000 insurgents.<sup>53</sup> At the same time, the CIA supposedly reported the insurgents numbered 50,000.<sup>54</sup> In July of 2004, estimates by military officials were raised to 20,000 recognizing the insurgency’s continued strength despite US forces inflicting significant casualties.<sup>55</sup> However, the administration did not officially acknowledge the higher figure. Anthony Cordesman estimates the insurgency is comprised of 10,000-15,000 people.<sup>56</sup>

The insurgency’s composition is also fiercely debated. The military has long argued that foreign fighters provide a significant force for the insurgency.<sup>57</sup> Prominently, the administration has placed a great deal of emphasis on Abu Musab al-Zarqawi, a Jordanian militant with supposed ties to al Qaeda. They have attributed the videoed beheading of an American to Zarqawi as well as the assassination of the president of the

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<sup>53</sup> John Lumpkin, “General: Fewer than 5,000 Iraq Insurgents,” *Associated Press*, November 13, 2003.

<sup>54</sup> Julian Borger and Rory McCarthy, “We Could Lose this Situation,” *The Guardian*, November 13, 2003.

<sup>55</sup> Jim Krane, “Iraq Insurgency Larger than Thought,” *Associated Press*, July 8, 2004.

<sup>56</sup> Anthony Cordesman, “The Situation in Iraq: The Impact of President Bush’s Speech,” Center for Strategic and International Studies Features, April 16, 2004, pp. 2

<sup>57</sup> Eric Schmitt, “US Commanders Say Increased Border Patrols Are Halting the Influx of Non-Iraqi Guerrillas,” *New York Times*, April 20, 2004.

Iraqi Governing Council.<sup>58</sup> Besides external forces, there are numerous internal organizations comprising the insurgency including those based on former Ba'ath officials like the Snake Party, The Return, and Mohammed's Army; those principally opposed to American occupation like the Iraqi National Islamic Resistance; and Islamist rebels like Ansar al-Islam, a Kurdish terrorist group with links to al Qaeda.<sup>59</sup> Most importantly, there has also been a rise in Shiite insurgents, particularly the al-Mahdi militia of Muqtada al-Sadr. Additionally, there are other groups who send videos in to television stations with new names. No one is clear how these groups are related or if they are organized.

But, many of these insurgents may have significant training. If foreign fighters from worldwide terrorists' organizations are in Iraq, they would provide military knowledge specifically aimed at defeating US troops.<sup>60</sup> Additionally, many believe the hard core of the insurgency is Ba'athists from the Hussein regime's security services and army.<sup>61</sup> They would also provide significant leadership and seem to be drawing on cadres of men trained under the old regime.<sup>62</sup> Under Hussein, the regular army had between 300,000 to 320,000 soldiers, the Republican Guards had 70,000, the Special Republican Guard had around 20,000, and the Saddam Fedayeen had between 12,000 –

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<sup>58</sup> Douglas Jehl, "CIA Says Berg's Killer Was Very Probably Zarqawi," *New York Times*, May 14, 2004 and Robert Reid, "Suicide Assassin Kills Iraq Council Chief," *Associated Press*, May 17, 2004.

<sup>59</sup> The following articles discuss one or more of the organizations listed and their networks; Daniel Williams, "Attacks in Iraq Traced to Network; Resistance to US Is Loosely Organized," *The Washington Post*, June 22, 2003, John Lumpkin, "Saddam Regime Said to Have Prepared for Guerilla War as US Invasion Begins," *Associated Press*, April 30, 2004, and Douglas Mellgren, "Decision on Whether to Indict Ansar al-Islam Founder Expected Next Month," *Associated Press*, May 14, 2004,

<sup>60</sup> Posen points out that terrorists are likely exchanging information, pp.29-30 and 34-35.

<sup>61</sup> Time magazine provided an interesting anecdotal look at the operations of insurgents. The network they saw was managed by an officer of the Saddam Fedayeen. Brian Bennet and Michael Ware, "Life Behind Enemy Lines," *Time*, Vol. 162, No. 24, December 15, 2003, p. 28.

<sup>62</sup> Ann Scott Tyson, "Insurgents in Iraq Show Signs of Acting as a Network," *Christian Science Monitor*, April 28, 2004 quotes Ahmed Hashim and Kenneth Pollack suggesting the insurgency is becoming well organized and trained. Bill Gertz, "Regime Remnants Hit Marines, Says JCS General," *The Washington Times*, April 8, 2004 suggests some of the forces in Ramadi are culled from the Special Republican Guard.

40,000 troops.<sup>63</sup> Many of these men have joined the Iraqi Civilian Defense Corps and it is unlikely the others are all insurgents.<sup>64</sup> Nonetheless, they still provide a large pool of trained manpower for the insurgency to draw from.

As the above discussion shows, no one is sure of what the Iraqi insurgency looks like. Because of the overwhelming difficulty of evaluating the insurgency with such scant information, I will use a simple variable for the insurgency in this paper. Because I have already demonstrated that the only place the insurgency can challenge the US is urban areas, I will represent the insurgency solely on the variable of how many towns offer resistance. Each town can likely produce and support an insurgent force of 2,000. This is only .5 – 1% of the population of each town in a country the CIA estimates has 3.5 million men fit for military service.<sup>65</sup> Moreover, the 2,000 number corresponds to the estimates given by the military for the resistance they have already faced. In Fallujah, the military put the active resistance at 1,500-2,000 insurgents.<sup>66</sup> For the Shiites, Sadr's militia has been estimated between 2,000 to 10,000 insurgents with about 1,000 – 2,000 insurgents estimated in Najaf during the heavy fighting.<sup>67</sup>

This number offers a conservative estimate of the insurgents. Even if every large town broke into violence, 2,000 per town would still put the size of the insurgency within the larger estimates. Moreover, it also conservatively estimates how much support insurgents could find. Even if ten times the number of insurgents is needed to support

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<sup>63</sup> George Edmondson, "Fedayeen Militiamen Tough, Loyal," *Atlanta Journal-Constitution*, March 25, 2003.

<sup>64</sup> Chris Brummitt, "Iraqi Forces to Take on Security Role," *Associated Press*, February 26, 2004.

<sup>65</sup> CIA World Factbook, <http://cia.gov/cia/publications/factbook/geos/iz.html>

<sup>66</sup> John Lumpkin, "Saddam Regime Said to Have Prepared for Guerilla War as US Invasion Begins," *Associated Press*, April 30, 2004 and John Kifner and Edward Wong, "Marines Transfer Fallujah Positions to an Iraqi Force," *New York Times*, May 1, 2004.

<sup>67</sup> Edward Wong, "US Troops Start Major Attacks On Shiite Insurgents in 2 Cities," *New York Times*, May 6, 2004.

each insurgent, this number only requires a tenth of each city to be sympathetic to the insurgents. About the size of three battalions, 2,000 insurgents in an urban setting would require a large amount of attackers to unseat. By using the number of towns as the variable in the insurgency, I have resolved the difficulty of describing the insurgency while still maintaining a highly plausible estimate both for how many people are willing to fight and how many people are willing to support them. Although a simplification, it allows us to gauge the effort required of the US.

#### MASKING

With at least a rudimentary understanding of the urban insurgency, we can determine the resources different tactics would require. One tactic, masking, aims to isolate insurgents from their support and usually from the population. Masking uses military forces as a barrier that screens and prevents movement between two areas. Under masking, I am including military operations and tactics designed to achieve Merom's goal of isolating insurgents from their support and the population. Two examples of isolating through masking are the British in the Dhofar campaign and the British cordons in Palestine.

The British primarily relied on cordon and search operations in opposing the Jewish revolt in Palestine in 1944 – 1948 especially in the early years. Like the Iraqi insurgency, the Jewish revolt primarily occurred in urban areas. In response, the British security forces would seal off districts within urban areas and conduct rigorous search operations.<sup>68</sup> In Operation Shark, they conducted one of the largest of these searches. They sealed off Tel Aviv with 17,000 personnel for four days as they conducted house to

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<sup>68</sup> John Newsinger, *British Counterinsurgency*, pp. 15.

house searches.<sup>69</sup> John Newsinger points out that these tactics were largely ineffectual because the British lacked the necessary intelligence to focus their efforts. Nevertheless, the tactic of cordoning an entire town fits into my category of masking. In this case, it was combined with offensive searches as well.

In a more successful example, the British returned to masking in the Dhofar campaign in Oman in late 1971. Trying to isolate the insurgents operating in the Jebel region from their base of supplies in the People's Democratic Republic of Yemen, the British constructed fortified lines north from the coast.<sup>70</sup> Built with concertina wire and reinforced concrete and mines, the British units could patrol the lines and interdict supply efforts forcing the insurgents to maneuver kilometers north and into more open terrain where they could be observed and destroyed by air. In 1974, the British built the 80 kilometer "Hornbeam" line that provided the strongest barrier against the rebels.<sup>71</sup> Although more aggressive operations were attempted, Mockaitis credits the patrolled interdiction lines as the tactic that depleted the insurgent's efforts to supply themselves from Yemen. Clearly isolating the insurgents from their base, the Dhofar campaign represents a masking approach.

These two examples demonstrate masking is most successful when the insurgency's base is not the same as the area they are attempting to operate. Thus disconnected, the insurgents can effectively be isolated by the security forces. Also, open terrain almost always works against guerillas as they cannot escape observation by the more heavily armed and mobile security forces. However, masking can be successful

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<sup>69</sup> Newsinger, pp. 21.

<sup>70</sup> Mockaitis, pp. 80.

<sup>71</sup> John Pimlott, "The British Army: The Dhofar Campaign, 1970-1975," in Ian F.W. Beckett and John Pimlott, eds. *Armed Forces and Modern Counterinsurgency*, (New York: St. Martin's Press, 1985), p. 40.

even without these advantages. The British used masking effectively in Malaya by physically relocating 400,000 Chinese to new settlements, severing their previous connections to the insurgents and then ensuring no new contact was established through rigorous protection behind physical barricades.<sup>72</sup>

In Iraq, masking would take the form of isolating urban areas or districts within urban areas that include significant insurgent presence.<sup>73</sup> Rather than engage insurgents in an urban area directly, masking would require the military to isolate the city the insurgents are in or at least some part of it. By doing so, the military can hopefully prevent the insurgents from making additional gains and itself make gains by preventing the insurgents from reinforcing or resupplying themselves. Similar to traditional siege warfare, masking aims to avoid confrontation, but instead of reducing the resistance, its main goal is to limit the impact of the insurgency on surrounding areas. The military generally refers to masking as a cordon operation. US Army FM 3.06-11 describes it thus:

“A cordon is a type of isolation. Cordon is a tactical task given to a unit to prevent withdrawal from or reinforcement of a position. Cordon implies seizing or controlling key terrain and or mounted and dismounted avenues of approach.”<sup>74</sup>

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<sup>72</sup> Pimlott, pp. 22-23.

<sup>73</sup> For a more complete examination of the possibilities of masking see Robert H. Scales, Jr., "The Indirect Approach: How US Military Forces Can Avoid the Pitfalls of Future Urban Warfare," *Armed Forces Journal International*, Vol. 31 (October 1998) pp. 68-74.

<sup>74</sup> US Army FM 3.06-11, *Combined Arms Operations in Urban Terrain*, 4-24 d. describes a cordon and attack as a brigade operation and in 14-12 discusses cordon and searches in stability and support operations. FM 7-20, *The Infantry Battalion*, discusses isolation techniques and cordon operations in Appendix G: Urban Operations, G-17c. It also discusses Cordon and Search in peacekeeping missions in its Low Intensity Conflict Appendix in Section C-28c. The Army also lists cordon and search operations in FM 90-8, *Counterinsurgency Operations*, 3-24 and Appendix G-9b. The Marine Corps lists encirclement in FM 8-12, *Counterinsurgency Operations*, 612.g and suggests a battalion is the minimum force needed. The Marines also address cordon and search in FM 90-8/MCRP 3-33A, *Counterinsurgency Operations*, 3-24 and encirclement in 3-33.

Usually, a cordon is combined with an offensive operation as well. In combat, it is used with an attack and in peacekeeping used with a search. In this analysis, I will not consider a complete cordon and search or attack operation. Instead, I will examine the possibilities of just masking with a cordon and in a following section investigate raids as the offensive counterpart.

Masking offers a way to limit the insurgency without forcing contact, but it remains manpower intensive. In Appendices B and C, I have taken maps of Fallujah and Najaf and assigned units to major road arteries. I have assumed a platoon is capable of guarding a major road artery and patrolling the area around that artery. In this case, I expect the platoon to patrol about four square kilometers – which is a simple task for mounted troops and a reasonable task for dismounted troops. At each artery, the platoon would be responsible for manning a checkpoint that examined all traffic in and out to prevent the flow of weapons, ammunition and other obvious insurgent capability. Minor roads in each platoon sector would be roadblocked and monitored by the patrols. For infantry units which are generally based on three squads, the platoon assignments allow one squad to man the checkpoint, one squad to patrol, and one squad off. As I have included armor units in my maneuver battalion calculus, assignments would have to differ for them.<sup>75</sup> Additionally, I argue a company should keep one platoon in reserve to

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<sup>75</sup> Each maneuver battalion is composed of platoons of slightly different organizations. A light infantry rifle platoon is composed of three squads. Airborne and air assault platoons have an additional weapons squad. A mechanized rifle platoon consists of two mounted sections and three dismounted squads. A stryker platoon consists of two mounted sections, three rifle squads, and a weapons squad. A stryker company also includes a Mobile Gun Systems (MGS) platoon of three vehicles. A heavy cavalry troop has two armor platoons and two scout platoons. The armor platoon consists of two sections and the scout platoon consists of three sections. A tank platoon consists of two sections. A marine infantry rifle platoon is composed of three squads. A marine tank platoon is composed of two sections. A marine amphibious assault platoon is composed of four sections although each platoon only consists of crewmembers designed to support a rifle company. US Army FM 7-8 Appendix A, FM 3-21.71 Appendix A, FM 3-21.9 Appendix

reinforce the two platoons manning arteries. In Appendix B, Fallujah, I assigned eleven arteries to be manned which roughly assigns four kilometer square sectors.<sup>76</sup> If a company mans every two arteries, Fallujah would require at least two battalions to mask it.<sup>77</sup> Looking at Appendix C, with a population almost twice as large, Najaf has fifteen arteries meaning it requires almost three battalions.<sup>78</sup> Note however, that I did not include all of Najaf's urban area, but instead focused on the old center leaving a large part of the city unmasked. Neither of these scenarios is tactically definite or complete as they don't consider many variables, but they provide an abstracted metric for us to measure the manpower necessary to mask an urban area. Moreover, the assumptions seem to match the forces employed currently in Iraq. The Marines had three battalions deployed around Fallujah in April of 2004. This closely follows the conclusion I drew especially considering they were initially conducting more aggressive operations.<sup>79</sup> Based on these calculations, I will assume each urban area, except for the larger cities like Mosul and Basra, requires two to three battalions to mask them.

By masking cities, the US can limit the effect of insurgents gaining a foothold in a city. However, masking does involve risk. First, the military can not completely seal off the city from outside influences. A cordon does not ensure zero surreptitious entry. To do so would require much larger forces. However, the US's technological advantage

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A, FM 17-97, Chapter 1, FM 3-20.15, Marine Corps FM 6-4, FM 17-15 Section I, MCWP 3-13 Section 1.7 and MCWP 3-14.1.

<sup>76</sup> In their attack on Fallujah on April 5, 2004, the Marines set up nine traffic checkpoints to isolate Fallujah. I have left my assessment of eleven because I assume a longer need for isolation and thus provide greater capacity for patrols. Robert D. Kaplan, "Five Days in Fallujah," *The Atlantic Monthly*, July/August 2004. p. 117

<sup>77</sup> I am also assuming a standardized battalion of three maneuver companies each consisting of three platoons. This organization is not standard in all battalions however. For instance, battalions stationed in Korea still maintain the cold war organization of four maneuver companies each.

<sup>78</sup> Note that scales are different between the two maps. The Fallujah map is 1:50,000 and the Najaf map is 1: 15,000. However, each grid represents a square kilometer on both scales.

<sup>79</sup> Interview with COL Ray Coia, USMC, May 11, 2004.

does allow it to use aerial reconnaissance and ground sensors to assist the ground forces. Nevertheless, the insurgents could still smuggle in additional supplies including munitions. More importantly, the insurgents could also still inspire greater resistance in other cities. Even if the cordon could distinguish between unarmed insurgents and peaceful civilians, news alone would still spread and other factions seeing the US military stymied might adopt similar tactics. Although masking prevents those insurgents from launching operations from their urban area, it can not close off the spread of ideas and so may not even serve its basic purpose of limiting the insurgency.

Second, the cordon is not a permanent solution. It depends on a change in the political situation or some other external influence to dissipate the insurgent's resistance. As described above, a cordon operation usually supports an offensive operation that directly counters the insurgent threat. I have not included the offensive aspect in this analysis, but will address it in a following section because it requires a significant increase in manpower. Therefore, a cordon alone must stay in place until the insurgents are neutralized by an external influence or until the military can leverage greater resources. Because of this open-endedness, a cordon is very manpower intensive. The two to three battalions we assigned to each city are committed for an unknown length of time. If the US were to face a growing insurgency, the battalions would quickly be stretched thin. To mask eight cities the US took action against in April 2004, the US would need 24 battalions.<sup>80</sup>

#### OCCUPATION

I call the second category of tactics occupation. Under occupation, I include all tactics that aim at policing or presence patrols over an extended period of time.

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<sup>80</sup> Target cities taken from CENTCOM briefing, April 30, 2004.

Generally, occupation tactics break down to much smaller unit levels. Where masking operations usually require at least a battalion sized element to effectively isolate a town or area, occupation aims at a constant presence and so requires units as small as squads and sections to operate independently to cover as much area as possible for as long as possible. Smaller units also allow for greater contact with the populace as they are more approachable.

As with masking, occupation does not have to stand alone. Occupation can provide a base for other operations. Gleaning intelligence through daily interaction with the populace, occupation operations can lead to information to direct raids. When hard pressed, occupation can concede areas and transition to a masking operation around those areas. Occupation is also the least military of the tactics as it resembles roles usually assigned to police forces. However, in counterinsurgency, the military must often perform these roles for a variety of reasons. Because of the increased violence due to an insurgency, standard police forces will likely not have either the necessary manpower or equipment to respond to greater threats than common criminality. Additionally, military forces often must conduct patrols and policing because of the nature of insurgencies. Because the insurgents usually can choose the time and place of contact, military forces can not fully devote themselves to more traditional combat roles and so must resort to small unit patrolling to attempt to force contact and discover insurgent activity.

Instead of directly countering the insurgent force, occupation would police an area to prevent the insurgents from effectively contesting the US presence. With enough manpower, an occupying force can monitor the day to day activities of a city's residents. Heavily armed, a military occupation force can respond quickly to rising threats like a

cell of insurgents or weapons cache and prevent it from growing into a larger problem.<sup>81</sup>

Essentially, the military must achieve the presence of police while maintaining its superior force capabilities.<sup>82</sup> I assert here that occupation as military policing is an effective tactic against insurgency. However, little work supports this assertion or its causal chain. Work on the use of force in stability operations is generally aimed at explaining how military forces can forward political or diplomatic goals.<sup>83</sup> This writing does not focus on how tactical tasks can suppress violence. Even the US military's manuals discuss the strategic implications without investigating the tactical side.<sup>84</sup>

Counterinsurgency literature provides a closer look at the relationship, but it too provides broad advice rather than specific tactical doctrine.<sup>85</sup> Nevertheless, I examine occupation as a possible tactic because potentially the constant presence of occupation troops could deter the insurgency without a great deal of casualties.<sup>86</sup>

For an example, in 1972, the British adopted occupation tactics in Northern Ireland. Previously, the army had served primarily to reinforce local police and the Royal Ulster Constabulary when large confrontations occurred such as at parades and demonstrations. The Army also mounted raids to seize arms caches and other

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<sup>81</sup> US Army FM 3-07, *Stability and Support Operations*, describes methods of observation and patrolling necessary to maintain order.

<sup>82</sup> See Jennifer Taw Morrison and Bruce Hoffman, *The Urbanization of Insurgency*, (Santa Monica, CA: RAND, 1994), pp. 20-22 for a brief overview of counterinsurgency tactics.

<sup>83</sup> For example, James Jay Carafano specifically looks at post conflict occupations, but only suggests they are a necessary transition, "The US Role in Peace Operations: Past Perspective, and Prescriptions for the Future," *Heritage Lecture #795*, August 14, 2003. Mats Berdal provides a valuable contribution in "Lessons Not Learned: The Use of Force in 'Peace Operations' in the 1990s," *International Peacekeeping*, Vol. 7 No. 4 (Winter 2000), pp. 55-74.

<sup>84</sup> See US Army FM 3.0, Chapter 9 and FM 3-07.

<sup>85</sup> The military's manuals on counterinsurgency all date from the early 1980s. US Army FM 90-8, *Counterinsurgency Operations*, (1986) Marine Corps manuals in FM 8-12, *Counterinsurgency Operations* (1980) and FM 90-8/MCRP 3-33A, *Counterinsurgency Operations* (1986). See Taw and Hoffman, Chapter 3, fn. 6, pp. 20 for references for counterinsurgency tactics.

<sup>86</sup> Taw and Hoffman point out that most urban counterinsurgencies have been successful – pp 17. However, their work focuses on the growing difficulties urban insurgencies pose because of burgeoning population thus creating the requirements examined here.

contraband. However, these tactics ceded large areas to insurgent control especially in Londonderry and Belfast.<sup>87</sup> At the end of July 1972, the Army undertook Operation Motorman to eliminate these uncontested areas and then to implement control switched tactics to presence patrols of squad size. These “bricks” were able to more closely track activities of individual households and provide a greater amount of intelligence. They also had the capacity to erect checkpoints for both personnel and vehicles. Although never eradicating the insurgents, these tactics did decrease the overall level of violence.<sup>88</sup>

Occupation is difficult because it is so manpower intensive. In contrast to most counterinsurgency literature which bases force ratios on the insurgent’s strength, James Quinlivan argues that the ratio of troops needed is better based on population.<sup>89</sup> He suggests that forces needed for stability operations range from about 2.3 per 1,000 people -- the average police presence in the United States -- to above twenty per 1,000 for intensive operations like the British occupation forces in Northern Ireland. Based on these ratios, I compiled Appendix D. In the first section, I calculate the troops required for three different ratios – three per 1,000, ten per 1,000, or twenty per 1,000 for Iraq as a whole and for individual cities. In the second section, I estimate the number of maneuver battalions required based on those numbers.<sup>90</sup> Given the heightened security concerns that already exist, I believe the lower figure is insufficient.<sup>91</sup> However, Quinlivan’s

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<sup>87</sup> Mockaitis, pp. 107-108.

<sup>88</sup> Mockaitis, pp. 110.

<sup>89</sup> James Quinlivan,, “Force Requirements in Stability Operations,” *Parameters*, Vol. 25, No. 4, (Winter 1995-1996), p. 59-69

<sup>90</sup> I use the estimate of 700 troops per battalion. A mechanized infantry battalion is assigned 703 personnel. A Marine infantry battalion is assigned 888. Stryker battalions are larger than mechanized infantry battalions, but tank battalions are smaller by about 200 personnel. Additionally, almost all battalions are short personnel. Therefore I have used 700 as a mid range number.

<sup>91</sup> To track the levels of insurgent activity and security risks, see the Coalition Provisional Authority’s Unclassified Daily Operational Threat Updates which are posted at <http://www.peacereporter.net/it/canali/bollettino/040225bollettiniraq/>.

numbers include both combat troops and support troops. Although most of the policing will be performed by combat troops, I will use the ten per 1,000 ratio to allow for an unaccounted number of support personnel in addition to the maneuver battalions. Still, the manpower requirements become extensive quickly. Just to occupy Fallujah would require at least four battalions. If the US were to occupy all of the towns it has conducted operations against recently, this ratio would require 42 battalions.<sup>92</sup> These operations would thus consume almost all of the maneuver battalions currently in Iraq and we have not considered the larger cities or rural areas. Using this ratio, Baghdad alone would require 85 battalions and Mosul and Basra would require around 20 to 25 each. Therefore, occupation is an untenable strategy for the US because of its manpower requirements.

Even if the US could fulfill the occupation manpower requirements, occupation poses several additional drawbacks. First, the US already faces some form of insurgency and so inserting its troops into trouble spots might require offensive operations. In the next section, I will address the requirements of offensive operations. Occupation would probably mandate that initial effort and then require the troops to stay. Second, like masking, troops would be forced to stay for an open-ended commitment. If occupation did calm the situation, it would likely stay calm only so long as US force presence remained strong – at least for the first few years as in the Balkan operations. Third, again like masking, occupation only solves the insurgency where troops are. Even if Fallujah were occupied with an adequate force, other towns could still support an insurgency if large enough forces weren't deployed there as well.

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<sup>92</sup> These towns were included in the CENTCOM briefing from April 30, 2004 showing US actions.

## RAIDS

Finally, I offer a third category of counterinsurgency tactics I label raids.<sup>93</sup> I've grouped all offensive operations under this heading. Although usually termed attacks in conventional warfare, I feel raid is a better description of counterinsurgency tactics. In many cases, the security forces already control the area where the raid occurs and are simply attacking a specific objective. Or, if the security forces do not control the territory, they are unlikely to remain after the raid. If they do, they must transition to one of the tactics described above. Therefore, I have used raid to denote the strike nature of offensive operations in counterinsurgency.

Raids are designed to permanently resolve resistance by destroying insurgent's positions and demonstrating future costs for further resistance. US Army FM 3-90.2 defines a raid as a "deliberate attack that involves the swift, temporary penetration of enemy territory for a specific mission. A raid usually ends with a planned withdrawal."<sup>94</sup> A raid aims to directly contact and destroy insurgents, but not occupy or defend permanent positions. If US troops had to remain, they would face the occupation requirements I outlined above. Unlike masking operations, a raid does seek to resolve a specific difficulty.

Because of its resemblance to conventional tactics, most militaries prefer to conduct raids as a strategy for counterinsurgency. However, successful raids in counterinsurgency rarely depend on tactical ability. Most security forces have always enjoyed a tactical advantage over guerillas because of their technological prowess and

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<sup>93</sup> Daryl Press also uses the term raid. Although he also uses it for a mission that inserts a force and then extracts it rather than remaining, he applies it only to non-combatant evacuations or other strategic strikes and does not consider it as an offensive weapon against a conventional force. "Urban Warfare: Options, Problems, and the Future," *Marine Corps Gazette*, Vol. 83, No. 4 (April 1999), pp. 17.

<sup>94</sup> US Army FM 3-90.2, *The Tank and Mechanized Infantry Battalion Task Force*, 5-23.

firepower. There are occasional tactical victories for insurgents, but these more often depend on the mistakes of the security forces. For example, the French suffered the dramatic tactical defeat at Dien Bien Phu largely because they failed to secure the hills around the base from which the Viet Minh were able to fire artillery directly onto their positions.<sup>95</sup> Instead, successful raids rely on solid intelligence that allows a military to bring its asymmetric advantage in combat power to bear. Most raids undertaken by security forces create significant disruption to the population without any great gains. Gains are usually restricted to minor arms caches or enemy casualties which do not decrease the enemy's ability to fight.

However, a raid also has tactical drawbacks. First, despite the US's technological and training advantages, urban combat is a difficult task. Later, I will examine current opinions on how difficult a task it is. An urban insurgency also provides unique difficulties. The insurgents may fight from decentralized positions forcing a wider fight and may be able to retreat into the civilian population preventing US forces from fixing them. Additionally, an urban fight against a core of insurgents may spread to the wider population as it appears to have done in Mogadishu in 1993.<sup>96</sup> Furthermore, even if successful in destroying a significant insurgent force, a raid does not leave a permanent presence to ensure the insurgency does not reemerge. However, for this study, I will assume that the insurgents fight from a reasonably defined area and so stand to fight the US forces. I do so because the purpose here is not to describe the worst case scenario for US forces, but provide an understanding of how available resources affect strategy. We

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<sup>95</sup> John Pimlott, "The French Army: From Indochina to Chad, 1946-1984," in Ian F.W. Beckett and John Pimlott, eds, *Armed Forces and Counterinsurgency*, (New York: St. Martin's Press, 1985), pp. 54-55.

<sup>96</sup> Mark Bowden, *Blackhawk Down*, (New York: Atlantic Monthly Press, 1999)

would not achieve this goal if we were to model all of the complications an urban raid can encounter.

Raids have been used frequently in counterinsurgency. Partly, this frequency is because the military prefers offensive operations which allow them to use conventional tactics. But, raids also provide the only way of attacking the insurgent forces and infrastructure. Traditional raids were used by both the Israelis in the late 1960s against the *fedayeen*. Starting in 1968, Israel adopted “active self defense” and began staging attacks across the border into Jordan aimed at camps supporting the *fedayeen*.<sup>97</sup> For an example more clearly part of counterinsurgency, the US used large scale units in Vietnam to essentially conduct raids. The battle of the Ia Drang Valley and even Operation Cedar Falls were raids; attacks aimed at military objectives that do not lead to control of the territory.<sup>98</sup> As the Vietnam examples demonstrate, raids rarely lead to lasting success. Over time, they can destroy insurgent strength, but insurgencies usually have more strength to tap. In Iraq, raids have again become the key offensive operation in the counterinsurgency fight. Captain Chad Foster states “The second type of military engagement that US military units frequently encounter in Iraq is the deliberate raid.”<sup>99</sup>

I suggest here the forces a raid would require if we assume the enemy described above – 2,000 somewhat reasonably trained insurgents with some support from the populace. Because not all Iraqis likely support the insurgents, I will not analyze a raid based on house to house fighting, but assume US forces can penetrate to the insurgent’s positions. Therefore, I will determine force sizes based on our assumptions of the

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<sup>97</sup> Gunther E. Rothenburg, “Israeli Defense Forces and Low Intensity Conflicts,” pp. 65-66.

<sup>98</sup> John A. Nagl, *Counterinsurgency: Lessons from Malaya and Vietnam*, (Westport, Connecticut: Praeger, 2002), pp. 155-156.

<sup>99</sup> Chad Foster, “Preparing for Iraq: A New Approach to Combined Arms Training,” *Armor Magazine*, (November/December 2003), pp. 6. He goes on to discuss why the raid is the chosen tactic.

insurgent's numbers rather than on a geographical basis.<sup>100</sup> A baseline requirement can be calculated from the historical attack ratio of 3:1.<sup>101</sup> Accepting the insurgent's strength at 2,000 in any given city, US forces would need 6,000 personnel or more than eight battalions.

Given the number of battalions deployed to Iraq, the US could certainly mass eight battalions for a raid. However, unlike the previous two tactics, raids require us to estimate the casualties a battalion would sustain in an operation. Both masking and occupation avoid direct confrontation with an enemy, but raids require close combat and thus casualties. As I have assumed only an insurgent force size rather than a geographical area, I turn to exchange ratios to determine the likely casualties forces would sustain.<sup>102</sup> Exchange ratios are the ratio of casualties taken by either side in a battle. Daryl Press discusses recent urban battles and gives several historical exchange

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<sup>100</sup> For example, Barry Posen states historical evidence suggests a company can take one city block in twelve hours suffering 30-45% casualties, "Urban Operations: Tactical Realities and Strategic Ambiguities," in Michael C. Desch, ed. *Soldiers in Cities: Military Operations On Urban Terrain*, (Carlisle, PA: Strategic Studies Institute, US Army War College, October 2001) p. 153

<sup>101</sup> The 3:1 rule is a highly debated topic in military modeling and planning. Nevertheless, it continues to hold large weight in helping plan or model conflicts. The US Army Command and General Staff College still used 3:1 as a standard planning ratio for an attacker in 1999. ST 100-3, *Battle Book*, (Fort Leavenworth, KS: Army Command and General Staff College, July 1999), Section II, 8-6. T.N. Dupuy describes the 3:1 ratio in his book *Understanding War: History and Theory of Combat*, (McLean, VA: NOVA Publications, 1987), Chapter Four and defends it again in "Correspondence," *International Security*, Vol. 14, No. 1 (Summer 1989), pp. 195-196. John Mearsheimer uses it for a sector attack in "Numbers, Strategy, and the European Balance," *International Security*, Vol. 12, No. 4, (Spring 1988), pp. 178. Paul Davis finds numerical support for the 3:1 rule at the sector level in Lanchester equations in *Aggregation, Disaggregation, and the 3:1 Rule in Ground Combat*, (Santa Monica, CA: RAND, 1995). Chapter 2 and Appendix. Although there seems to be no study that explains the nature of the 3:1 Rule and it is still fiercely debated including which level of combat to apply it to, I find it useful because it mimics the organization of most modern militaries. If a platoon holds a defensive position, a company is usually tasked to take it. If a company holds a defensive position, a battalion is tasked to take it.

<sup>102</sup> More complicated models exist and are discussed by Michael O'Hanlon in "Estimating Casualties in a War to Overthrow Saddam," *Orbis*, (Winter 2003), pp. 21-40. For urban combat, he relies on T.N. Dupuy's model from *Attrition: Forecasting Battle Casualties and Estimating Equipment Loss in Warfare*, (Fairfax, VA: HERO Books, 1990). As my calculations are based on multiple assumptions, I believe a simpler estimate is better than trying for greater detail through more complicated models.

ratios.<sup>103</sup> He argues the Israeli army was very effective against the Jordanians achieving a 2:1 ratio without destroying much of the city. However, he also notes that the US has achieved much better ratios. In Somalia, the US suffered only one dead to every 25 the Somalis suffered. In Hue, Vietnam, the last major urban combat the US conducted, the US suffered only a 1:34 ratio against the North Vietnamese. But, if you include the South Vietnamese ally's losses, the ratio falls to 1:10 - still a very favorable ratio.<sup>104</sup> Michael O'Hanlon provides figures for the Panamanian invasion putting the US ratio at only 1:5 and supports Press's 1:25 for Mogadishu.<sup>105</sup>

However, many argue the US military has achieved a level of military dominance in the last couple of decades that allows it to achieve much higher ratios. In the first Gulf War, the US achieved astounding exchange ratios. If you assume a very conservative figure of 15,000 Iraqis killed, the US achieved a 1:100 ratio for its own forces and a 1:63 ratio if other allied forces are included.<sup>106</sup> In the recent Iraq war, the US likely achieved a ratio around 1:40.<sup>107</sup> Most attribute this success to the US's technological prowess.<sup>108</sup> It is unclear whether this technological advantage carries over to urban combat. In the months before the Iraq war, observers differed. Daryl Press argued the US did have technological advantages including night sights, breaching equipment, and aircraft

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<sup>103</sup> Press, "Urban Combat," pp. 18.

<sup>104</sup> In Somalia, the US lost 18 dead to the conservative estimate of 500 Somali dead. In Hue, the US lost 147 troops and the South Vietnamese 531 versus the North Vietnamese's 5,000.

<sup>105</sup> O'Hanlon, "Estimating Casualties in a War to Overthrow Saddam," pp. 33. He states the US lost 23 dead to the Panamanian's 125.

<sup>106</sup> O'Hanlon lists 147 US dead and 240 total coalition dead and suggests Iraqi dead were in the "low tens of thousands" pp. 26 and 29.

<sup>107</sup> The Project for Defense Alternatives has estimated a range of 4,895 to 6,370 for Iraqi combat deaths. <http://www.comw.org/pda/0310rm8ap1.html>. The US suffered 115 killed in action during major combat.

<sup>108</sup> See Stephen Biddle for a discussion of how US forces fared in individual battles in the Gulf War, "Victory Misunderstood: What the Gulf War Tells Us about the Future of Conflict," *International Security*, Vol. 21, No. 2, (Autumn, 1996), pp. 155.

support.<sup>109</sup> Michael O'Hanlon doubts the effectiveness of airpower in urban combat and argues "Nothing about new technology and new war-fighting concepts associated with the so-called revolution in military affairs seems likely to radically change the challenge of urban warfare anytime soon."<sup>110</sup> In support of this view, most of the hope for technological leaps still lies in the future.<sup>111</sup>

The US has always achieved a favorable exchange ratio even in urban terrain. However, technology has not so revolutionized urban combat to allow the US to achieve the superiority it enjoys in open warfare. Therefore, I will use a 1:10 ratio. Using this measure, the US gets a significant advantage for its military preeminence, but accounts for the difficulty of urban terrain including the restrictions the US will likely face employing firepower in urban areas against a small proportion of the population. Based on this figure, the US can expect about 200 casualties from engaging our 2,000 insurgents. These casualties would likely not be spread evenly across the eight battalions I have assumed attacking, but I will assume they are to simplify the analysis. Therefore, each battalion engaged would suffer about 4% casualties. These casualties accord well with the limited urban combat we have seen so far. One Marine battalion lost ten dead and an additional 20 wounded in a defense in Ramadi or just over 3% of their assigned strength.<sup>112</sup> Expecting higher casualties in an attack, 4% seems reasonable.

At that rate, the US forces could engage the insurgents with raids. Given the number of maneuver battalions in the region, the US could rotate the attacking battalions

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<sup>109</sup> Daryl Press, "How to Take Baghdad," *The New York Times*, March 26, 2003

<sup>110</sup> Michael O'Hanlon, "Counting Casualties," *Slate.com*, September 25, 2002

<sup>111</sup> Jessica Altschul, "Advanced Technology to Provide Edge for US Troops in Urban Combat," *The Jewish Institute for National Security Affairs*, April 27, 2004.

<sup>112</sup> On April 6, 2004, the 2<sup>nd</sup> Battalion, 4<sup>th</sup> Marine Regiment had suffered 10 casualties of an assigned endstrength of 888 personnel. Anthony Shadid, "US Forces Take Heavy Losses As Violence Spreads Across Iraq," *The Washington Post*, April 7, 2004.

and so conduct five to six raids before employing a battalion already used. These raids would introduce significantly higher casualty rates than the US has endured so far. Still, each battalion could likely stage two raids and suffer 4% casualties and recover through the in-place replacement process. However, raids still pose a significant risk. First, as with the other tactics, they are not guaranteed success. Even if each operation is successful in destroying the targeted insurgents, they do not prevent the rise of other insurgents either in that town or in additional towns. Raids solve the difficulty of sustained urban combat by withdrawing, but that then leaves the town free for insurgents to regroup. Second, the raids do not leave much room for error. If a battalion took any greater casualties than those figured here, it would likely not be able to regenerate itself with the current replacement capability.

In Table 1, I have listed the number of battalions each tactical category would require. Above, I have justified how I arrived at the figure per town. In the second column, I have included the battalions necessary to address eight cities of similar size simultaneously. I have used the eight figure measure as a possible, but high, number of insurgent towns that could descend into substantial violence simultaneously. I have included a third column that projects the figures throughout the country. This number is illuminating as it shows how drastic the requirements could be if the troop presence I have posited were distributed throughout the entire country. However, this scenario is highly unlikely as the insurgency has not demonstrated that level of support or activity. But, in comparison, the US had a high point of about 540,000 troops deployed to South

Vietnam with a population of six to ten million people less than Iraq.<sup>113</sup> The highest number in the table, 700 battalions, would roughly equate to about 500,000 troops. However, the table addresses only maneuver battalions and the 500,000 figure includes support troops which make up a large proportion of the US military. Nevertheless, the table clearly demonstrates how quickly requirements can rise.

Table 1. Battalion Requirements per Tactic

Tactic	Battalions needed per city	Battalions needed for 8 cities <sup>1</sup>	Battalions needed all Iraq
Masking	2-3	16-24	54-81 <sup>2</sup>
Occupation <sup>3</sup>	4-8	34-68	350-700
Raids <sup>4</sup>	6.5-9	51-68	170-230 <sup>2</sup>

<sup>1</sup> Target cities taken from CENTCOM briefing, April 30, 2004.

<sup>2</sup> All Iraq figured by using number per city multiplied by eighteen cities larger than 100,000 people plus double that requirement for Mosul and Basra plus five times that requirement for Baghdad.

<sup>3</sup> Occupation numbers figured by population of noted towns or country divided by a standard battalion of 700 personnel. The low range is figured using the ten per thousand ratio and the high figure is 20 per thousand.

<sup>4</sup> Raid numbers figured by assuming a 3:1 attack ratio and using a low figure of insurgents at 1500 and a high figure at 2000.

### *Available US Resources*

Modern nation states have an incredible ability to produce resources and the US is the richest nation state to ever exist. With a GDP over ten trillion dollars and a population of 293 million people, the US has nearly unfathomable resources.<sup>114</sup> In May and June of 2004, the House and Senate each passed a bill allocating \$447 billion for

<sup>113</sup> "Active Duty Military Personnel by Regional Area and by Country - 1968," Directorate of Information Operations and Reports, <http://web1.whs.osd.mil/mmid/military/history/309hist.htm>

<sup>114</sup> Population figure taken from US Census Population Clock projection.

defense. That sum is larger than 168 countries' entire GDP in 2002.<sup>115</sup> To suggest the US has limited resources is only to say that these limitations are self imposed. In World War II, US defense spending neared 40% of GDP. The current defense bills represent less than four percent of GDP. If the US were to mobilize the nation for war in Iraq, the resources available would be much greater than currently. Nevertheless, the US already invests a great deal in its defense, yet faces a resource scarcity in its counterinsurgency efforts in Iraq.

#### LIMITATIONS ON FORCES

This scarcity is almost solely in number of troops. The administration has requested and received defense budget supplementals of \$56.5 billion and \$72 billion specifically for Iraq in 2003 and 2004.<sup>116</sup> Although some observers claim these amounts do not cover the needs for Iraq, they demonstrate the significant fiscal resources being devoted.<sup>117</sup> No evidence suggests that greater financing is not available. However, the same is not true in troop strength. This shortage is almost entirely the conscious creation of the Bush administration and specifically the Secretary of Defense.

Secretary of Defense Donald Rumsfeld has pledged to transform the military into a leaner force more suited for the roles it occupies in the 21<sup>st</sup> century. To do this, Secretary Rumsfeld has consistently insisted that more could be done with less, in particular less people. Rumsfeld and the administration have opposed troop increases proposed by Congress arguing against amendments to the FY03 Defense appropriations

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<sup>115</sup> GDP figures taken from the World Bank World Development Indicators for 2002 Current Dollars.

<sup>116</sup> House Budget Committee, "The Cost of War and Reconstruction in Iraq," September 23, 2003, p. 8

<sup>117</sup> Ron Elving, "Bush's Dilemma: Criticism from Both Sides," NPR Web Extra, June 25, 2004, <http://www.npr.org/features/columns/column.php?columnId=1929301&wfId=1978105>

bill, to the October 2003 supplemental, and again in the FY05 defense appropriation bills.<sup>118</sup> The Congressional Research Service has drawn up a report discussing the arguments for and against increasing end strength.<sup>119</sup> The administration opposed the increases primarily because of the expense of additional personnel. Each soldier costs approximately \$50,000 to \$100,000 annually.<sup>120</sup> Cash compensation is the Department of Defense's second largest component of the entire military budget.<sup>121</sup> To prevent increased defense spending overall, but still free monies for transformation projects, the administration has resisted all attempts for mandatory force size increases.

However, some increases have been made. In January 2004, the Department of Defense did implement their option to temporarily increase end strength by 3% raising the Army's authorized strength to 482,000. In May and June 2004, the House and Senate both passed amendments to the appropriations bill which would further increase military size. The House passed an increase of 30,000 troops for the Army and 9,000 for the Marine Corps over three years.<sup>122</sup> The Senate passed a mandatory increase of 20,000 troops for the Army only for the following year.<sup>123</sup> Neither bill will be final until the two houses of Congress reconcile conference committee.

This debate does not mean the military cannot expand and even expand rapidly. The military is a large and flexible organization and has many ways to generate extra manpower. For instance, on September 14, 2001, three days after the terrorist attack,

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<sup>118</sup> Amy Svitak, "Rumsfeld Takes Hardline Against Boosting Army Troop Strength," Govexec.com, October 17, 2003.

<sup>119</sup> See Edward F. Bruner, "Military Forces: What is the Appropriate Size for the United States?" Congressional Research Service, May 28, 2004.

<sup>120</sup> James Fallows, "The Hollow Army," *The Atlantic Monthly*, March 2004.

<sup>121</sup> Paul Hogan, "Overview of the Current System," in Cindy Williams, ed, *Filling the Ranks*, (Cambridge: MIT Press, 2004), p. 29.41-42.

<sup>122</sup> Dan Morgan, "House Passes \$447 billion Defense Bill," *The Washington Post*, May 21, 2004

<sup>123</sup> Helen Dewar, "Senate Passes \$447 billion Defense Bill," *The Washington Post*, June 24, 2004.

President Bush issued an executive order authorizing the call up of reserves and modifying personnel regulations that allow the services to extend servicemember's tours involuntarily.<sup>124</sup> Called stop-loss orders, these measures prevent servicemembers from separating or retiring from the military at the end of their original tours. With just this simple measure, the Army alone affected 40,000 troops and increased its endstrength by about 20,000.<sup>125</sup> Additionally, the Army has 160,000 personnel currently listed on the Individual Ready Reserve consisting of trained personnel who can be recalled for individual replacement.<sup>126</sup> In June of 2004, the Army began to call some of these reservists to duty.<sup>127</sup> Finally, the Army takes in about 74,000 new soldiers a year usually replacing a comparable number exiting the service.<sup>128</sup> As this high turnover suggests, with increased resources, the military could increase its recruitment to create more manpower. Partly, the military can increase its recruitment and retention by offering bonuses to entice troops to join or stay.<sup>129</sup> However, due to training requirements, these increases do take time to take effect. The military can also adapt itself internally. I will examine several of these possibilities in a later section. The military is not a static organization and has numerous ways to expand, but given the political limitations, we can address the military's size as a limited resource.

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<sup>124</sup> Executive Order, September 14, 2001, <http://www.whitehouse.gov/news/releases/2001/09/20010914-5.html>

<sup>125</sup> Lee Hockstader, "Army Stops Many Soldiers from Quitting," *Washington Post*, December 29, 2003, p. A1.

<sup>126</sup> Reserve Component Personnel Data Common Personnel Database, <http://www4.army.mil/USAR/organization/force.php>

<sup>127</sup> Thom Shankar, "Military Plans to Call Up Soldiers Who Left Service," *The New York Times*, June 30, 2004 and Joseph Galloway, "Army May Send Special Reserves to Active Duty Involuntarily," *Knight Ridder Newspapers*, May 19, 2004.

<sup>128</sup> Kurt Gilroy, Presentation in US Military Budget and Forces Planning, MIT class 17.953, April 29, 2004.

<sup>129</sup> Hogan, pp. 41-42.

As the above debate shows, the US has a limited number of troops intentionally. Only the administration's desire to limit troop size prevents the US from fielding a much larger force. Still, the administration has been successful; this debate has served to limit troop size. And, these limitations have affected US strategy.

#### US FORCES COMPOSITION AND STRENGTH

In order to discuss the extent of our manpower resource, I will use maneuver battalions as a base unit. The military is a complicated organization with many different functionalities, but all of these functionalities exist to support the basic purpose of the military – the employment of force. Therefore, to measure how the military is employed, I will concentrate solely on maneuver battalions which are the primary elements of force in the military. I am defining maneuver as infantry or armor units.<sup>130</sup> Artillery, aviation, and engineer units are also considered combat arms. In Iraq and other peacekeeping operations they have been pressed into duty basically as infantrymen. Later, I will examine how this adaptation eases the military's burden. I have chosen the battalion level because although smaller units like companies can be cross-attached, the battalion is the smallest unit with its own logistical support that is still devoted to a single combat specialization. The US Army describes the battalion as; "The Battalion is a unit that is both tactically and administratively self sufficient. In warfighting, Battalions are capable of independent operations of limited scope and duration."<sup>131</sup> In Iraq, most operations occur at an even smaller organizational level than battalions.<sup>132</sup> But by analyzing

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<sup>130</sup> I have not included the division reconnaissance squadrons although they possess significant ground combat power.

<sup>131</sup> US Army website, <http://www.army.mil/organization/unitdiagram.html>

<sup>132</sup> Foster, pp. 6.

resources at the battalion level, we can gain a deeper understanding of how resources are allocated than by looking at larger organizations like brigades, but still have enough abstraction to make the analysis tractable.

The US currently has between 38 and 50 maneuver battalions deployed to Iraq.<sup>133</sup> In the active force, the Army has 105 maneuver battalions and the Marines have 32 maneuver battalions for a total of 137.<sup>134</sup> The Army has an additional 46 battalions in National Guard enhanced separate brigades (ESBs) which are kept at a higher readiness level than other reserve units.<sup>135</sup> The Marines have nine reserve infantry battalions, two reserve tank battalions, a light armored reconnaissance battalion and an amphibious assault battalion which are used to augment deploying Marine forces. In all, the military has about 200 maneuver battalions and so has about one quarter of its maneuver battalions deployed in Iraq.

The situation appears more dire when troop rotation is included.<sup>136</sup> Since the 3<sup>rd</sup> Infantry Division deployed to Kuwait in January of 2003, all but 23 of the 105 active Army maneuver battalions have deployed to Iraq. Of those 23, six are stationed in Korea, eight are deployed to Afghanistan, five are transforming to the new Stryker Brigade configuration, and four are the opposing forces at the training centers.<sup>137</sup> None of these missions exclude deploying to Iraq however. In May 2004, the Department of Defense

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<sup>133</sup> I am unable to provide an exact figure because force deployments are not published to maintain operational security. Additionally, units are rotated frequently creating significant difficulty in determining which units are employed at any given time.

<sup>134</sup> See Appendices E-G for a listing of US military maneuver battalions.

<sup>135</sup> Current Army doctrine expects to deploy 8 of 15 National Guard Enhanced Separate Brigades within 140 days of mobilization. Thomas F. Lippiatt, James C. Crowley, and Jerry M. Sollinger, "Time and Resources Required for Postmobilization Training of AC/ARNG Integrated Heavy Divisions," (Santa Monica, CA: RAND, 1998), Chapter 2.

<sup>136</sup> I have primarily used casualty lists to determine which battalions have deployed to Iraq. Some battalions have suffered no casualties but were listed in either news reports or on their own website as having deployed to Iraq. Although not exact, this methodology allows an open source ability to track units.

<sup>137</sup> I believe the 2<sup>nd</sup> Battalion, 34<sup>th</sup> Armor Regiment deployed to Iraq as part of the 1st Brigade Combat Team of the 1<sup>st</sup> Infantry Division, but I cannot find a specific source listing them there.

announced 3,600 soldiers – one brigade – would be redeployed from Korea to Iraq.<sup>138</sup>

Additionally, the Pentagon has suggested it might deploy elements of the 11<sup>th</sup> Armored Cavalry Regiment, the opposing force at the National Training Center, to Iraq as well.<sup>139</sup>

In Table 2, I have listed the number of maneuver battalions, by service, that are deployed or have deployed to Iraq.

The situation is similar for the Marines. Of 32 active battalions, 22 have deployed to Iraq. The remaining battalions are mainly deployed to Afghanistan and Okinawa. Nearly 80% of the US military's maneuver battalions have seen service in Iraq in the past year. The remaining 20% are almost all deployed on other US missions particularly Afghanistan and Korea. Additionally, the US has already employed reserve battalions. Ten of the 46 battalions in the National Guard ESBs are currently deployed to Iraq and four others appear to have already served in Iraq with six other battalions recently notified they would deploy.<sup>140</sup> For the Marines, four of sixteen reserve battalions have seen duty in Iraq.

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<sup>138</sup> Josh White, "US Troops Moving from South Korea to Iraq," *Washington Post*, May 18, 2004.

<sup>139</sup> Joseph Galloway, "Stressed Army Desperate for Warm Bodies," *Knight Ridder Newspapers*, May 20, 2004.

<sup>140</sup> "Call-Up Notice for National Guard Units," *The New York Times*, March 2, 2004, page 6.

Table 2. US Military Maneuver Battalion Deployments as of June 30, 2004.<sup>1</sup>

	Army	Army Reserves	Marines	Marine Reserves	Total
Deployed to Iraq	34	11	9	1	55
Previously Deployed to Iraq	48	4	14	3	69
Not served in Iraq	23 <sup>2</sup>	31	9 <sup>3</sup>	9	72
Total	105	46	32	13	196

<sup>2</sup>These figures are not official. See footnote 133. Assuming three battalions to a brigade, these numbers do tally with the Pentagon's own accounting though which lists eleven brigades deployed to Iraq.

"Corrections – Editorial Desk" *New York Times*, June 23, 2004.

<sup>2</sup> Includes eight battalions deployed to Afghanistan

<sup>3</sup> Includes three battalions deployed to Afghanistan

#### EFFECT OF ROTATION ON FORCE AVAILABILITY

When deploying troops, the difficulty is not in fielding an initial level of troops, but maintaining the desired number over time. In the occupation of Iraq, US troops will remain deployed for an unknown period of time. Already, we have acknowledged that the occupation at current levels is likely to continue for at least another year. Unlike in total war, troops are not drafted and then maintained for the duration of the hostilities. In the all volunteer force, troops must be rotated away from combat conditions to provide a high quality of life. In the next section, I will examine what the effects of overusing troops can be. First, though, I will spell out how many battalions are available when rotation is considered.

In June of 2004, there were about 55 maneuver battalions deployed to Iraq. If the Active Army were assigned this entire burden, they could fill it. However, for the Army to sustain this troop level, they would have to send half of their force over to Iraq every year. This rotation would allow for only one year at home station. As the occupation continues indefinitely, each soldier would be expected to spend half of his service

deployed. Additionally, the Army would be incapable of any other mission as its troops would either be in Iraq or recovering and preparing for their next tour in Iraq.

In order to achieve a lower rotation ratio, the active Army must be supported by the reserves and Marines. In Table 3, I have listed how many battalions each service could make available based on how long each battalion is afforded between Iraq deployments. The Congressional Budget Office (CBO) has reported on how the Iraqi occupation can be sustained.<sup>141</sup> In their report, they cite Army analysts as insisting that Army battalions need to be deployed only one sixth of the time.<sup>142</sup> This report has already become obsolete as one of their basic assumptions was that the troop requirements would decline over time. In my analysis, I have assumed that Iraq is the primary mission of the armed services. An assumption validated by such events as the redeployment of troops from the mission in Korea to Iraq. Under that assumption, much more frequent rotations can occur.<sup>143</sup> There are still dangers from too high a rotation ratio which I will discuss below. For now, I will assume that all units are available for the primary mission of Iraq.

In order to sustain the current troop contributions from each of the services, the active Army would return units to Iraq after two years at home station. The Army reserve would return units in only three years and the active Marines would return troops after only eighteen months. The Marines face a faster rotation schedule because I have assumed they maintain only six month tours. Traditionally, the Marines have based

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<sup>141</sup> Congressional Budget Office, "An Analysis of the US Military's Ability to Sustain an Occupation in Iraq," September 3, 2003.

<sup>142</sup> Ibid. Appendix C.

<sup>143</sup> In a background briefing at the Pentagon, a senior Defense official and senior military official stated that as the nation was at war, rotations could occur on a one to one basis. That is, a unit is deployed home only as long as it was deployed to Iraq. "News Transcript," Department of Defense, May 17, 2004, <http://www.defenselink.mil/transcripts/2004/tr20040517-0762.html>.

deployments on six to eight month sea tours returning for eighteen months. As of June 2004, the Marines were still fighting to maintain that rotation cycle.<sup>144</sup> For the reserve components, the CBO study cited the intent of the Secretary of Defense to only call up reserve forces for one year in every six.<sup>145</sup> That ratio would allow seven battalions from the Army Reserves to deploy to Iraq – the lowest figure in my table. I have included variance to either side allowing for shorter and longer rotations away from Iraq, but the numbers demonstrate there is little room for adjustment across the services and each service will likely have to continue the burden share it currently maintains.

Table 3. Battalions Deployable Based on Time between Tours

	<b>Active Army (1 year tour)</b>		<b>Army Reserve (1 year tour)</b>		<b>Active Marines (6 month tour)</b>		<b>Marine Reserves (6 month tour)</b>	
<b>Total Battalions</b>	105		46		32		13	
<b>Time between Tours</b>								
	18 months	42	3 years	11	18 months	8	3 years	1
	2 years	35	4 years	9	2 years	6	4 years	1
	3 years	26	5 years	7	3 years	4	5 years	1

#### LIMITATIONS ON TROOP ROTATION

The simple figures I presented above leave out several factors on troop rotation. First, they do not include additional missions. The Iraqi occupation is undoubtedly the Army’s primary mission. Outside of Iraq, the Army has maneuver battalions deployed only in Afghanistan. The rotation of troops from Korea demonstrates that no longer is that a mission that must be maintained at historical levels. In the last two years, the

<sup>144</sup> Scott Schonauer, “No Plans to Extend Marines’ 7-month tours in Iraq, Says Commandant,” *Stars and Stripes*, June 2, 2004. The seven month tour is six months of actual duty and one month to allow transportation and transition time with the units they replace and the units that relieve them.

<sup>145</sup> CBO, “An Analysis of the US Military’s Ability to Sustain an Occupation in Iraq,” September 3, 2003.

Army has also shifted its deployments in Bosnia and Kosovo over to solely reserve units freeing all active maneuver battalions from responsibility. But, the Army still has eight battalions in Afghanistan. If it were to maintain that responsibility, it would only be able to deploy 27 battalions to Iraq and still allow units two years at home station between deployments. Additionally, these rotations mean that the US would maintain no strategic reserve unless it redeployed units that had served in Iraq within the last two years. To protect units from back to back deployments, ready units would have to be exempted from Iraq service and factored into the rotation plan.

Second, the rotations do not allow for the effects on the unit's readiness.<sup>146</sup>

Readiness should be assessed on whether the unit is able to train on its basic warfighting skills. Usually, a unit requires one month to prepare for a deployment and two months to recover from a deployment.<sup>147</sup> Additionally, soldiers are also entitled to 30 days of leave a year. However, a RAND study determined that a unit could maintain its training readiness provided it had a minimum of eighteen months between deployments.<sup>148</sup>

Moreover, an argument could be made that the troops in Iraq are involved in actual combat which provides greater skill than training. Unlike the peacekeeping operations of the 1990s, Iraq involves the use of force and collective unit actions from squad to battalion and even occasionally brigade sized operations. However, most operations in Iraq are similar to the patrolling done during peacekeeping operations even though they are more likely to encounter hostile fire. Thus, if the military insisted that its units

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<sup>146</sup> See Jennifer Morrison Taw, David Persselin, and Maren Leed, "Meeting Peace Operations' Requirements While Maintaining MTW Readiness," (Santa Monica, CA: RAND, 1998), pp. 32-36 for a discussion of how deployments can affect a unit's warfighting capability.

<sup>147</sup> W. Michael Hix, J. Michael Polich, and Thomas P. Lippiatt, *Army Stationing and Rotation Policy* (Santa Monica, Calif.: RAND, 2003), pp. 30-31.

<sup>148</sup> Ibid.

receive the same level of training they did prior to the 2003 Iraq War and maintain their occupation rotations, the units would face severe demands. In reality, units will likely undergo training schedules that allow for peak performance at deployment.

Third, the rotation schedule above does not account for quality of life for military personnel. Many people assume that the disruptions caused by deploying will negatively affect the quality of life for military personnel. Simply put, if a soldier must leave his or her family for an extended period of time that will adversely affect his relationships with his family and thus decrease his quality of life. Moreover, if one deployment is soon followed by another deployment, that adversity will be heightened. Because the military is an all volunteer force, most people assume that personnel will react to this adversity by not volunteering again. That is, most observers fear a drop in retention rates and so deployments must be limited, further limiting the troops available for any task.

To mitigate this adversity, I attempted to include as great a time between deployments as possible in the above analysis. Even so, the gaps between deployments are much smaller than what has been deemed acceptable for continuing operations in the last decade or so as outlined in the CBO report cited above. However, despite the compelling logic that no one likes disruption in their life, it is not clear that increased deployments decrease retention. In the 1990s, the military's size significantly decreased, but operational deployments increased creating a greater stress on personnel and units. Because of this stress, reports were conducted to determine the extent of the negative effects of deployments. In 2003, RAND published a research brief that concluded "The findings indicate deployment can increase retention for both officers and enlisted

members.”<sup>149</sup> Essentially, they found that servicemembers had the same assumptions as the logic laid out above; leaving one’s family for extended periods of time decreases the quality of life. But, after deploying, they find other reasons to reenlist and the negative affects of deployment do not outweigh those reasons. A study in *Parameters* reached similar conclusions.<sup>150</sup> These studies echo policymaker’s fears of the effect on retention by deployments and point out that many servicemembers cite deployments as a negative influence. Once more, they note that it is not obvious that deployments will hurt retention. Finally, we are just beginning to see the effects of the current Iraq deployments. For the divisions deployed during the initial stages of the Iraq war, retention rates have held steady with pre war retention rates.<sup>151</sup> All but one division met their reenlistment targets and the one division short still achieved 92% of its target.

Although retention in the all volunteer force is usually considered a limitation on the troop strength that can be deployed, it is not clear that quality of servicemember’s lives actually negatively affects troop availability. In my analysis above, I included very short rotation schedules which many observers would blanch at as too demanding on individuals. But, so far, no research or statistics support the conclusion that the increased deployments are leading to a future catastrophe.

Of the three limitations on troop rotation I have listed, it is not clear any drastically affect troop availability. Although deployments decrease unit’s home station training time, units likely do not lose much combat effectiveness in Iraq and remain ready for other missions including combat. Deployments do affect servicemember’s quality of

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<sup>149</sup> “How Does Deployment Affect Retention of Military Personnel?” RAND Research Brief, (Santa Monica, CA: RAND, 2003)

<sup>150</sup> Carl A. Castro and Amy B. Adler, “OPTEMPO: Effects on Soldiers and Unit Readiness,” *Parameters*, (August 1999), pp. 86-95.

<sup>151</sup> Rowan Scarborough, “Army Divisions Hit Re-Up Targets,” *The Washington Times*, April 2, 2004.

life, but they do not seem to detrimentally affect retention rates and so do not foreshadow a future disaster for the all volunteer force. The large deployments for Iraq do limit troop availability for any other mission. However, the military at its current size can sustain the current Iraq commitments and have a few battalions to deploy to other theaters like Afghanistan or Haiti. If another major theater war did arise, the military would likely be hard pressed to handle both contingencies. But, the military can continue its current commitments without inducing disastrous stress on its force.

#### MILITARY MITIGATIONS OF FORCE CONSTRAINTS

The military also has internal steps it can take to obviate its force constraints. Through adjustments, the military can generate greater troop strength than my analysis on maneuver battalions shows. Specifically, the military has increased its troop availability by using other units like maneuver battalions and restructuring its force to create more maneuver units.

In Iraq, the Army is using more than just its maneuver battalions of armor and infantry as ground troops. It has rededicated other military specialties as infantry-like units. First, armor units are increasingly functioning not as tankers, but as dismounted infantry.<sup>152</sup> I have already included these units in my analysis. More importantly, the Army has been using other units, particularly artillery units, as dismounted or even motorized infantry; according to Chad Foster “Artillery units are operating extensively in Iraq, but they are not being employed in a fire support role. They are operating as mechanized infantrymen, conducting dismounted and mounted patrols in various towns

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<sup>152</sup> Stewart, McCarthy, and Mullin, “Task Force Death Dealers”

and cities.”<sup>153</sup> By so doing, the military creates more manpower than is reflected in my analysis of solely maneuver battalions. However, I have excluded these units from my analysis because they only provide one extra battalion per brigade plus some support from division assets. Moreover, they are not direct replacements for maneuver units and are not generally assigned the same level of combat tasks given the maneuver battalions. Nevertheless, they have played an increasing role taking sector responsibilities and providing security patrols throughout their sector.<sup>154</sup> They have also assumed other roles like force protection and training other units freeing the maneuver battalions’ manpower for the more traditional military missions.<sup>155</sup> These roles have included guarding oil installations, US bases, and humanitarian assistance and liaison. For the most part, this retasking has been limited to artillery units. Air Defense units have also taken some protection missions and even chemical units are employed as quick reaction forces.<sup>156</sup> But other units, like engineers and aviators, have remained tasked with their core missions. Although aviation is not supplying direct fire as frequently, they still provide aerial presence and have not substituted for ground forces. Engineers are traditionally the first units retooled as infantrymen and work harder at maintaining basic infantry skills. However, they have been kept in engineer roles to provide assistance in reconstruction efforts. While not playing as significant a role in security as maneuver battalions, the

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<sup>153</sup> Chad Foster, “Preparing for Iraq,” fn. 1.

<sup>154</sup> *FA Journal* dedicated an entire issue (January/February 2004) to the roles Field Artillery was playing in Iraq. Particular articles of interest are Lieutenant Colonel Timothy A. Vuono, Major Jeffrey C. Collins and Captain Evans A. Hanson, “3-82 FA Transformation into a Hybrid Motorized Rifle and Paladin Battalion: Training for Baghdad,” pp. 7-12, Major Jeffrey T. O’Neal and First Lieutenants Aaron P. Heberlein and Jonathan H. Bork, “Flexibility and Bold Innovation for Multiple Missions in Iraq: 2-15 FAR Beyond Combat,” pp. 13-17, Captain Steven L. Miller, “3-16 FA, 4ID, Conducting Elections in Iraq,” pp. 22-24, Captain Joseph C. Winkelman, “Establish an NGO Reception Center at Baghdad Airport? What the Hell is an NGO?” pp. 31-33, Captain Julian T. Urquidez and Major Paul Yingling, “2-18 FA: Training the Iraqi Civil Defense Corps,” pp. 34-37.

<sup>155</sup> *Ibid*, especially Heberlein and Bork, Miller, Winkelman, and Urquidez and Yingling.

<sup>156</sup> Fourth Infantry Division Lessons Learned, [https://call2.army.mil/oif/Docs/briefings/InfConf/4thID\\_files/frame.asp](https://call2.army.mil/oif/Docs/briefings/InfConf/4thID_files/frame.asp)

other specialties have adapted well providing the military greater troops availability and flexibility.

The military and Army especially have also began restructuring to better fulfill occupation duties. Most notably, the Army is moving from a division based structure to what it terms “Units of Action,” where brigades will replace divisions as the primary unit to deploy.<sup>157</sup> Primarily, this change means reallocating support units from division echelon to be permanently assigned to brigade level units. Division units will then become “Units of Employment” aimed more at command and control than providing support like artillery and maintenance. For this analysis, the change is most significant because it expands the number of brigades from three per division to four units of action. In turn, this expansion raises the number of maneuver companies in each brigade from nine to eleven.<sup>158</sup> Ostensibly, these changes are being done by reallocating troops not by enlarging end strength. By decreasing the number of air defense and other units, more troops are available for maneuver units. As of June 2004, only the Third Infantry Division was converting from brigade structure to units of action with the 101<sup>st</sup> Airborne Division slated for conversion next. But, these conversions show how the military can restructure and create greater availability than I have noted in my analysis.

### *Fitting Resources to Requirements*

Now that we have laid out abstract requirements for counterinsurgency tactics and listed the forces available to the US, we can easily estimate what tactics are possible

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<sup>157</sup> MG Dave Bryan, “Army C4 Transformation,” June 3, 2004, [http://www.ausa.org/chapweb/glc/glac/pdfs/05\\_MG%20Bryan.pdf](http://www.ausa.org/chapweb/glc/glac/pdfs/05_MG%20Bryan.pdf)

<sup>158</sup> Joseph L. Galloway, “US Army Undergoing Big Changes; Focus is on ‘Continuous Operations,’” *Charleston Gazette*, June 23, 2004.

given US force posture. However, we must proceed cautiously – recognizing that the tactical requirements are abstract and that US force composition and strength are not rigid structures unaffected by the many conditions I’ve described above. Despite these difficulties, the analysis demonstrates that masking is the likely strategy that can be employed given US force strength.

By comparing the numbers, we quickly see that occupation is not a possible course. To occupy at the numbers generated by Quinlivan’s analysis, the US would need drastically more manpower. Just to occupy eight cities, the US would commit all of its combat power in Iraq. To cover all of Iraq to the same extent, the US would require nearly ten times the battalions it has available in Iraq. In fact, an occupation of that scale would require twice as many battalions as the entire US military has. Moreover, occupying just a single city is a manpower intensive strategy requiring a tenth of the forces in Iraq. Because occupation’s requirements outstrip US resources, occupation is an unlikely strategy for the US.

In order to increase troop presence in Iraq, the US has intended on using local troops. To this end, the Iraqi security forces have been recruited and trained totaling over 210,000 in May 2004.<sup>159</sup> The troops are not direct replacements for US troops. They are not as well trained, equipped, protected, or even motivated as US troops making them unsuitable for most military tasks. In addition, the number is inflated by including a wide range of security forces. It includes the Iraqi Police Service with about 120,000 personnel, the Facilities Protection Service with about 70,000 personnel, the Border Patrol with about 8,300, the New Iraqi Army which still has only about 8,300 troops, and

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<sup>159</sup> Donna Miles, “Rumsfeld Praises Iraqi Security Forces, Says to Expect Ups and Downs,” American Forces Press Service, May 11, 2004.

finally, the Iraqi National Guard with somewhat over 30,000 troops.<sup>160</sup> These troops do not all bring the same capabilities. Personnel in the Facilities Protection Service were receiving only two days of training and the Iraqi Army has not been employed as yet. In the events of April 2004, the Iraqi National Guard, then known as the Iraqi Civil Defense Corps, proved unreliable deserting in the face of resistance. But, these troops do increase the number of troops that are patrolling Iraq and so do provide some support for the occupation numbers needed. Nevertheless, US resources do not cover the requirements occupation needs. Therefore, the US is unlikely to attempt an occupation strategy.

Raids are also difficult tasks given US resources. In the chart above, I estimated six and half to nine battalions necessary to conduct a raid in a small city. Extrapolated out to the whole of Iraq, the numbers quickly look imposing requiring over 200 battalions. However, that suggestion is not quite accurate because raids do not have to be conducted simultaneously and with separate troops. The US can certainly muster six to nine maneuver battalions focused on a single city. But, as discussed above, raids are difficult to conduct successfully and rarely serve as a surgical operation that removes the problem for good. Because of this indefiniteness, a strategy of raids would force the US into constantly offensive operations as they continue to conduct raids looking for a final victory. This strategy then opens the US up to a much greater casualty rate as well as offering much greater destruction and disruption to civilians. US forces are large enough to cover the initial requirements of raids. But, because the strategy introduces greater stresses on manpower from casualties and continuing operations, the requirements of

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<sup>160</sup> Sharon Otterman, Iraq: Security Forces, Council on Foreign Relations website, [http://www.cfr.org/background/background\\_iraq\\_security.php](http://www.cfr.org/background/background_iraq_security.php), March 16, 2004. Also supported by Tom Lasseter, "Attacks on Iraqi Security Forces Rises as Attacks on US Forces in Iraq Decline," *Knight Ridder Newspapers*, June 11, 2004 and Rod Nordland, "Iraq's Repairman," *Newsweek*, July 5, 2004.

raids threaten to overwhelm US resources. Like occupation, raids are an unlikely strategy for the US based on its resource requirements.

In contrast to the other two tactics, masking requirements correspond to the resources available. Earlier, I estimated a city of between one hundred and several hundred thousand people would require two to three maneuver battalions to provide a basic cordon. Extrapolated out to the figure of eight possible cities which could muster resistance simultaneously, I arrived at a requirement between sixteen and twenty four battalions. When further expanded to all of Iraq, the requirements reached 54 to 81 battalions. Although a significant use of manpower, these figures are a fraction of the requirements of the other two tactics.

Even more interesting, these numbers are comparable to the battalions stationed in Iraq. As of summer 2004, the US had about 55 maneuver battalions in Iraq. When compared to the requirements of a raid or occupation strategy, these battalions barely provide the manpower for only eight target cities. However, if a masking strategy is adopted, the current battalions provide a large enough troop level to respond throughout Iraq. This correlation alone provides strong incentive for the military to rely on the cautious strategy of masking.

However, the analysis is strengthened when troop rotation is also considered. Even if we use the shortest periods between deployments, we barely reach the current troop level. If the Army and Marines return their active duty troops after eighteen months, the US has 50 available battalions. If we use the very demanding period of three years between reserve units' tours, the US can muster another twelve battalions for a total of 62. Given the current deployment of 55 maneuver battalions to Iraq and eleven to

Afghanistan, this stringent rotation schedule would still only maintain the current troop levels. These figures tell us that the troops available are not limited in the short term, but over the upcoming years as well and the chosen strategy must not require more than that number.

Since about 50 battalions is all the US can maintain in Iraq, masking is the only strategy that offers success at that troop level as seen in Table 4. Therefore, although the military or administration may prefer a different strategy to achieve its political ends, US resources limit them to the means of masking. Through a relatively simple analysis, we can predict what strategy the US must rely on purely on the basis of resources available.

Table 4: Fitting Resources to Requirements

<b>Resources</b>			
<b>Battalions Deployable Over Time</b>		<b>Battalions Currently Deployed</b>	
<i>Service (time between tours)</i>		<i>Service</i>	
Active Army (18 months)	42	Active Army	42
Army Reserve (3 years)	11	Army Reserve	11
Active Marines (18 months)	8	Active Marines	12
Marine Reserves (3 years)	1	Marine Reserves	1
<b>Total All Services</b>	<b>62</b>	<b>Total All Services</b>	<b>66</b>
		<i>Minus BNs in Afghanistan</i>	
		Active Army	8
		Active Marines	3
		<b>Total Battalions Available for Iraq Strategy</b>	<b>55</b>

VS

<b>Requirements</b>	
<b>Minimum Battalions Required per Strategy</b>	
Masking	<b>54</b>
Occupation	<b>350</b>
Raid	<b>170</b>

The analysis is further supported by the operations that have been conducted in Iraq. It is difficult to assess what strategy is being employed because the strategies are not published and clearly defined. And, although, I have categorized the tactics separately, none are mutually exclusive and can all be used in some combination to varying degrees. Nevertheless, as the analysis predicts, US actions are relying primarily on masking.

The US does not appear to be using an occupation strategy. The US has clearly recognized its force limitations and has not attempted to police every region of Iraq. In a study by the Army's Foreign Military Studies Office, the authors note "The brigades of the 101<sup>st</sup> [Airborne Division] are spread thinly across Northern Iraq."<sup>161</sup> Although US forces do actively patrol and try to be involved in the local populace, they have not achieved the density necessary to fully occupy any area.

Following the increased intensity of the insurgency in April 2004, the US initially undertook significant raids. In Fallujah, the 1<sup>st</sup> Marine Division launched an attack with three battalions to pursue insurgents. However, these raids were inconclusive. The Marines were able to go where they wanted, but always faced harassing fire and never found a center of gravity for the insurgent forces.<sup>162</sup> Although using raids, the US has not relied on them as its primary strategy.

Instead, the US has relied primarily on masking. In May 2004, the Marines handed over responsibility for Fallujah to the "Fallujah Brigade," a motley crew of ex-

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<sup>161</sup> Lester W. Grau and Amanda S. Mitchell, "The Contemporary Operating Environment in Iraq: Putting a Face on the Place," Center for Army Lessons Learned, Foreign Military Studies Office, Fort Leavenworth, KS, January 2004.

<sup>162</sup> See Kaplan, "Five Days in Fallujah," for a first hand account of the marines' actions.

army members from the Saddam Hussein regime.<sup>163</sup> Withdrawing from the city, US forces gave up operations within the city whether patrolling or raids. Instead, they maintained positions around the town.

Similarly, the US has also treated an-Najaf, a Shiite town, in much the same way. In April 2004, the militia of Muqtada al-Sadr joined the insurgency and attacked US forces. At the end of May, the US completed an agreement like the one in Fallujah agreeing to withdraw its own forces and allow Iraqi security forces to provide protection.<sup>164</sup> Under this truce, US troops were involved only in the outskirts of the city.

In August of 2004, when the truce was broken, the US military officially acknowledged using a masking strategy to respond to insurgent activity. In the Central Command press release, Brigadier General Erv Lessel stated: "Current clearing operations by Iraqi Security Forces and Multi-National Forces in Kufa and Najaf are focused on areas in both cities, but do not include the Imam Ali Mosque nor the Kufa Mosque. Today's operations are designed to restrict freedom of movement of Sadr forces in Kufa and Najaf and to further isolate them in these mosques which they use as a base of operations."<sup>165</sup> Correspondents also noted the acknowledged strategy: "A day after holding back from a full-scale assault on Najaf's old city, American troops began offensive operations today in an attempt to set up a cordon around the old city's outer limits."<sup>166</sup> Although the military continued to prepare for more robust offensive action, as in April, the US has relied mainly on masking to achieve its goals.

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<sup>163</sup> See Jeffrey Gentleman, "The Re-Baathification of Iraq," *New York Times Magazine*, June 20, 2004.

<sup>164</sup> Geoffrey York, "US Suspends Najaf Operations," *Globe and Mail*, May 28, 2004.

<sup>165</sup> Brigadier General Erv Lessel, "Operations in Najaf Designed to Isolate Militia," News Release, US Central Command, August 12, 2004.

<sup>166</sup> Alex Berenson and Terence Neiland, "US Pushes New Offensive in Najaf in Bid to Cordon Old City," *New York Times*, August 12, 2004. Also see Karl Vick and Fred Barbash, "Fighting Intensifies in Holy City of Najaf," *Washington Post*, August 12, 2004.

The US has attributed its choice of strategy to a desire to prevent damage to holy shrines and increase Iraqi presence, but these masking tactics are the actions this analysis predicted. By masking the cities, the US has relied on a strategy it can implement with its limited manpower. It avoids the expenditures necessary for raids without assuming the large task of occupation patrolling. Certainly, other factors do influence the strategy chosen. But, by simply analyzing what resources are available, we can offer a fairly accurate prediction of what US strategy is likely to be. Therefore limited resources have been a primary determinant of US strategy in Iraq.

### *Conclusion*

US strategy in Iraq provides a powerful example of how resources can determine strategy. Throughout the analysis, I have pointed out the difficulties in deciding the requirements for tactics and strategy, as well as the amount of resources available. But, through careful analysis, I have modeled an approximation of what the requirements and resources actually are. Having done so, we can see which strategy US forces seem large enough to accomplish. In the Iraq case, I have argued that the resources available incline the US military to a strategy predominantly based on masking tactics.

Although I have argued in this paper the importance of resources, other factors do influence the choice of strategy. We must sift through many small operations and estimate what were the deciding factors in each and how much they in turn were part of a greater strategy dictated by resources. Nevertheless, US strategy does seem to rely primarily on masking techniques, as the analysis here predicted.

Given this correlation between my analysis's predictions and actual US actions in Iraq, this study provides strong support for the importance of resources in determining strategy. Few would argue that resources do not help determine strategy. Because of this assumed consensus, we often do not analyze the impact of available resources - preferring to concentrate on other motivations like Clausewitz's moral elements. This neglect can prevent us from fully understanding the root causes of a strategy. In so doing, we risk assigning disproportionate weight to causes and drawing flawed lessons. As the Burma campaign example shows, resources are often an overlooked determinant of strategy. Other inputs are important, but because resources are such an obvious cause, we do not weigh their importance enough. In Iraq, US strategy is easily understood when looked at from available resources, but confusing when considered only on political or military goals.

By demonstrating how much we can understand by reconciling available resources against the requirements of various tactics, I have emphasized the importance of examining resources as a fundamental determinant of strategy. Only when we acknowledge this importance can we properly appreciate the other elements that determine strategies.

Appendix A: Physical Features Map of Iraq

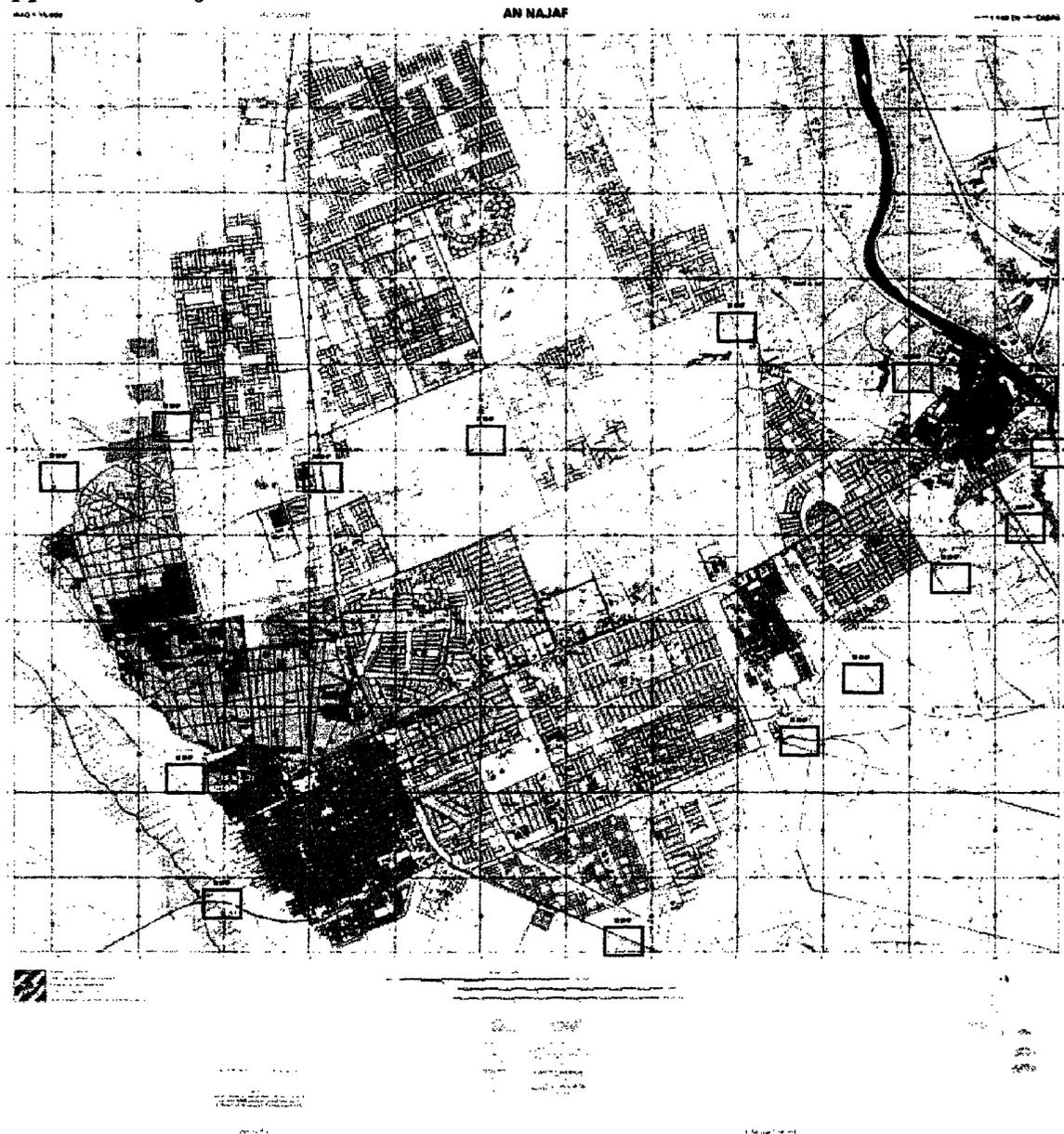


## Appendix B: Fallujah Cordon



Map prepared and printed by the 148<sup>th</sup> Engineer Detachment (Topographic) 3<sup>rd</sup> Infantry Division, Fort Stewart, Georgia, March 2003. Scale: 1:50,000. Graphics added by Author.

## Appendix C: Najaf Cordon



Map prepared and printed by the 148<sup>th</sup> Engineer Detachment (Topographic) 3<sup>rd</sup> Infantry Division, Fort Stewart, Georgia, April 2003. Scale: 1:15,000. Graphics added by Author.

## Appendix D: Force Requirements for Occupation Duties

Pop Rank	City	Pop. 2004	Occupy 3 per 1,000	Occupy 10 per 1,000	Occupy 20 per 1,000
	Iraq	24,683.3	74,050	246,833	493,666
1	Baġdād	5,948.8	17,846	59,488	118,976
2	al-Mawşil	1,846.5	5,540	18,465	36,930
3	al-Başrah	1,477.2	4,432	14,772	29,544
4	Irbīl	891.3	2,674	8,913	17,826
5	Kirkūk	784.1	2,352	7,841	15,682
6	as-Sulaymānīyah	682.8	2,048	6,828	13,656
7	an-Najaf	609.4	1,828	6,094	12,188
8	Karbalā	596.3	1,789	5,963	11,926
9	an-Nāşirīyah	587.0	1,761	5,870	11,740
10	al-Ĥillah	573.0	1,719	5,730	11,460
11	ar-Ramādī	470.0	1,410	4,700	9,400
12	ad-Dīwānīyah	466.8	1,400	4,668	9,336
13	al-Kūt	420.5	1,262	4,205	8,410
14	al-ʿAmārah	362.6	1,088	3,626	7,252
15	Baʿqūbah	311.8	935	3,118	6,236
16	al-Fallūjah	284.5	854	2,845	5,690
17	Sāmarrā	214.1	642	2,141	4,282
18	az-Zubayr	180.9	543	1,809	3,618
19	Tall ʿAfar	167.8	503	1,678	3,356
20	as-Samāwah	131.9	396	1,319	2,638
21	al-Kūfah	123.5	371	1,235	2,470
22	aş-Şaţrah	90.6	272	906	1,812
23	Ĉamĉamal	77.8	233	778	1,556
24	al-Hāriţah	72.1	216	721	1,442
25	al-Qāsım	71.7	215	717	1,434
26	Sūq-aş-Şuyūh	71.2	214	712	1,424

### Troops Needed

Fallujah	854	2,845	5,690
Fallujah, Najaf	2,682	8,939	17,878
Fallujah, Najaf, Ramadi	4,092	13,639	27,278
Fallujah, Najaf, Ramadi, Karbala	5,881	19,602	39,204
Fallujah, Najaf, Ramadi, Karbala, Nasiryah	7,642	25,472	50,944
Fallujah, Najaf, Ramadi, Karbala, Nasiryah, Amarah	8,729	29,098	58,196

### Battalions Needed

Fallujah	1.2	4.1	8.1
Fallujah, Najaf	3.8	12.8	25.5
Fallujah, Najaf, Ramadi	5.8	19.5	39.0
Fallujah, Najaf, Ramadi, Karbala	8.4	28.0	56.0
Fallujah, Najaf, Ramadi, Karbala, Nasiryah	10.9	36.4	72.8
Fallujah, Najaf, Ramadi, Karbala, Nasiryah, Amarah	12.5	41.6	83.1

Source: CIA Factbook: Iraq and World Gazetteer, <http://www.world-gazetteer.com/c/c iq.htm>. Troops needed figured off of James Quinlivan, "Force Requirements in Stability Operations," *Parameters*, Vol. 25, No. 4, (Winter 1995-1996), p. 59-69. Battalion numbers derived using 700 troops per battalion.

## Appendix E: Army Maneuver Battalions

DIV	BN		DIV	BN		DIV	BN	
1ID	1-16 IN	I	3 ID	1-15 IN	x	82 ABN	1-504 IN	x
1ID	1-18 IN	I	3 ID	1-30 IN	x	82 ABN	2-504 IN	x
1ID	1-26 IN	I	3 ID	1-64 AR	x	82 ABN	3-504 IN	A
1ID	1-34 AR	I	3 ID	2-69 AR	x	82 ABN	1-325 IN	x
1ID	1-63 AR	I	3 ID	2-7 IN	x	82 ABN	2-325 IN	x
1ID	1-77 AR	I	3 ID	3-15 IN	x	82 ABN	3-325 IN	x
1ID	2-2 IN	I	3 ID	3-69 AR	x	82 ABN	1-505 IN	x
1ID	2-34 AR	?	3 ID	3-7 IN	x	82 ABN	2-505 IN	x
1ID	2-63 AR	I	3 ID	4-64 AR	x	82 ABN	3-505 IN	x
1AD	1-13 AR	x	4 ID	1-12 IN	x	101 ABN	1-327 IN	x
1AD	1-35 AR	I	4 ID	1-22 IN	x	101 ABN	2-327 IN	x
1AD	1-36 IN	I	4 ID	1-66 AR	x	101 ABN	3-327 IN	x
1AD	1-37 AR	I	4 ID	1-67 AR	x	101 ABN	1-502 IN	x
1AD	1-41 IN	x	4 ID	1-68 AR	x	101 ABN	2-502 IN	x
1AD	1-6 IN	I	4 ID	1-8 IN	x	101 ABN	3-502 IN	x
1AD	2-37 AR	I	4 ID	2-8 IN	x	101 ABN	1-187 IN	x
1AD	2-6 IN	I	4 ID	3-66 AR	x	101 ABN	2-187 IN	x
1AD	2-70 AR	x	4 ID	3-67 AR	x	101 ABN	3-187 IN	x
1 CAV	1-12 CAV	d	10 MTN	1-32 IN	I	173rd ABN	2-503 IN	x
1 CAV	1-5 CAV	I	10 MTN	1-87 IN	A	173rd ABN	1-508 IN	x
1 CAV	1-8 CAV	I	10 MTN	2-14 IN	x	172nd ABN	1-17 IN	S
1 CAV	1-9 CAV	x	10 MTN	2-22 IN	A	172nd ABN	2-1 IN	S
1 CAV	2-12 CAV	I	10 MTN	2-87 IN	A	172nd ABN	1-501 IN	A
1 CAV	2-5 CAV	I	10 MTN	4-31 IN	x	RGR	1-75 IN	x
1 CAV	2-7 CAV	d	25 ID	1-14 IN	I	RGR	2-75 IN	I
1 CAV	2-8 CAV	x	25 ID	1-21 IN	I	RGR	3-75 IN	x
1 CAV	3-8 CAV	d	25 ID	1-24 IN	S	JRTC	1-509 IN	O
2 ID	1-23 IN	I	25 ID	1-27 IN	I	CMTC	1-4 IN	O
2 ID	1-503 IN	K	25 ID	1-5 IN	S	11 ACR	1-11 CAV	O
2 ID	1-506 IN	K	25 ID	2-27 IN	A	11 ACR	2-11 CAV	O
2 ID	1-72 AR	K	25 ID	2-35 IN	A	2 ACR	1-2 CAV	I
2 ID	1-9 IN	K	25 ID	2-5 IN	A	2 ACR	2-2 CAV	I
2 ID	2-3 IN	I	25 ID	3-21 IN	S	2 ACR	3-2 CAV	I
2 ID	2-72 AR	K				3 ACR	1-3 CAV	x
2 ID	2-9 IN	K				3 ACR	2-3 CAV	x
2 ID	5-20 IN	I				3 ACR	3-3 CAV	x
						3 ACR	3-3 CAV	x

Legend: I = Currently in Iraq, K = Currently in Korea, A = Currently in Afghanistan, S = Currently undergoing Stryker transformation, d = ordered to Iraq, O = OPFOR battalion, x = deployed to Iraq within last year

Deployments as of May 17, 2004 based on casualty lists from Iraq: Coalition Casualties, <http://lunaville.org/warcasualties/Details.aspx>, assorted news sources, and unit websites. Due to operational security, units may not be properly represented.

## Appendix F: Marine Corps Maneuver Battalions

<b>1st Marine Division</b>	<b>3rd Marine Division</b>	<b>2nd Marine Division</b>	<b>4th Marine Division (Reserves)</b>
3 AAB x	1 CAB Okinawa	2nd AAB x	4th AAB x
1st LARB x	3rd LARB x	2nd LARB x	4th LARB x
1st Tank x		2nd Tank x	4th Tank
			8th Tank
<b>1 Marine Regiment</b>	<b>3rd Marine Regiment</b>	<b>2nd Marine Regiment</b>	<b>23rd Marine Regiment</b>
1/1 x	1/3 Hawaii	1/2 x	1/23 x
2/1 Iraq	2/3 Okinawa	2/2 Iraq	2/23
3/1 x	3/3 Hawaii	3/2 x	3/23
1/4 x		<b>6th Marine Regiment</b>	<b>24th Marine Regiment</b>
3/4 Iraq		1/6 Afghanistan	1/24
<b>5th Marine Regiment</b>		2/6 Okinawa	2/24
1/5 Iraq		3/6 Afghanistan	3/24 Iraq
2/5 x		<b>8th Marine Regiment</b>	<b>25th Marine Regiment</b>
3/5 Iraq		1/8 x	1/25
2/4 Iraq		2/8 Afghanistan	2/25
<b>7th Marine Regiment</b>		3/8 haiti	3/25
1/7 x			
2/7 Iraq			
3/7 Iraq			

x indicates has deployed to Iraq within last year.

Deployments as of May 17, 2004 based on casualty lists from Iraq: Coalition Casualties, <http://lunaville.org/warcasualties/Details.aspx>, assorted news sources, and unit websites. Due to operational security, units may not be properly represented.

## Appendix G: National Guard Enhanced Separate Brigade Maneuver Battalions

<b>Enhanced Brigade BN</b>	<b>Enhanced Brigade BN</b>
27th INF (New York)	76th INF (Indiana)
1-105 IN <i>iraq</i>	1-151 IN
1-108 IN	1-152 IN x
2-108 IN x	2-152 IN
29th INF (Hawaii)	1-293 IN
2-299 IN	81st INF (Washington)
1-184 IN	1-185 AR <i>iraq</i>
100-442 IN	1-303 AR <i>iraq</i>
30th INF (North Carolina)	1-161 IN <i>iraq</i>
1-120 IN <i>iraq</i>	116th CAV (Idaho)
1-150 AR <i>iraq</i>	2-116 AR CAV <i>ordered</i>
1-252 AR <i>iraq</i>	3-116 AR CAV <i>ordered</i>
39th INF (Arkansas)	1-163 IN <i>ordered</i>
1-153 IN <i>iraq</i>	155th AR (Mississippi)
2-153 IN <i>iraq</i>	1-155 IN
3-153 IN <i>iraq</i>	1-198 AR
41st INF (Utah)	2-198 AR
1-162 IN	218th INF (South Carolina)
2-162 IN	1-118 IN
1-186 IN	4-118 IN
45th INF (Oklahoma)	1-263 AR
1-179 IN	256th INF (Louisiana)
1-180 IN	2-156 IN <i>ordered</i>
1-279 IN	3-156 IN <i>ordered</i>
48th INF (Georgia)	1-156 AR <i>ordered</i>
1-121 IN	278th ACR (Tennessee)
2-121 IN	1 sqdrn <i>ordered</i>
1-108 AR	2 sqdrn <i>ordered</i>
53rd INF (Florida)	3 sqdrn <i>ordered</i>
1-124 IN	
2-124 IN x	
3-124 IN x	

Legend: *iraq* = Currently deployed to Iraq, *ordered* = Notified will deploy to Iraq, x = deployed to Iraq within last year

Deployments as of May 17, 2004 based on casualty lists from Iraq: Coalition Casualties, <http://lunaville.org/warcasualties/Details.aspx>, assorted news sources, and unit websites. Due to operational security, units may not be properly represented.