





# WINNING IN A COMPLEX WORLD: THE SUITABILITY OF MANOEUVRE IN FIGHTING UNCONVENTIONAL WARS

LCdr N.G. Decicco

# **JCSP 41**

# Exercise Solo Flight

# **PCEMI 41**

# Exercice Solo Flight

#### Disclaimer

Opinions expressed remain those of the author and do not represent Department of National Defence or Canadian Forces policy. This paper may not be used without written permission.

© Her Majesty the Queen in Right of Canada, as represented by the Minister of National Defence, 2015.

#### Avertissement

Les opinons exprimées n'engagent que leurs auteurs et ne reflètent aucunement des politiques du Ministère de la Défense nationale ou des Forces canadiennes. Ce papier ne peut être reproduit sans autorisation écrite.

© Sa Majesté la Reine du Chef du Canada, représentée par le ministre de la Défense nationale, 2015.



## CANADIAN FORCES COLLEGE – COLLÈGE DES FORCES CANADIENNES JCSP 41 – PCEMI 41 2014 – 2015

#### EXERCISE SOLO FLIGHT – EXERCICE SOLO FLIGHT

# WINNING IN A COMPLEX WORLD: THE SUITABILITY OF MANOEUVRE IN FIGHTING UNCONVENTIONAL WARS

LCdr N.G. Decicco

"This paper was written by a student attending the Canadian Forces College in fulfilment of one of the requirements of the Course of Studies. The paper is a scholastic document, and thus contains facts and opinions, which the author alone considered appropriate and correct for the subject. It does not necessarily reflect the policy or the opinion of any agency, including the of Canada and Government Canadian Department of National Defence. This paper may not be released, quoted or copied, except with the express permission of the Canadian Department of National Defence."

Word Count: 5495 Compte de mots : 5495

"La présente étude a été rédigée par un stagiaire du Collège des Forces canadiennes pour satisfaire à l'une des exigences du cours. L'étude est un document qui se rapporte au cours et contient donc des faits et des opinions que seul l'auteur considère appropriés et convenables au sujet. Elle ne reflète pas nécessairement la politique ou l'opinion d'un organisme quelconque, y compris le gouvernement du Canada et le ministère de la Défense nationale du Canada. Il est défendu de diffuser, de citer ou de reproduire cette étude sans la permission expresse du ministère de la Défense nationale."

#### **Introduction and Method**

Since the Korean Action of 1950-53, the conventional military forces of the United States have engaged in fights around the world across the spectrum of conflict, from state-on-state wars to clandestine security-centric undertakings and most everything in between. Irrespective of the strategic problem or objective, the military 'toolbox,' composed of Army, Navy, Air Force, Marine and Special Forces capabilities, has been conventional. This raises a key question, which is the focus of this paper: in the context of the unconventional conflicts the US military finds itself fighting, are conventional forces of the manoeuvre warfare school suited for the missions they are ordered to undertake? This paper seeks to answer this question, arguing that conventional forces are capable of winning unconventional wars because their measured, precise and targeted applications of force enable them to participate in the comprehensive approaches required to overcome wicked problems and resolve conflicts in the 21st century security environment.

This task is undertaken through a five-step approach. I begin framing a common understanding of the concepts to be considered by placing the concept of manoeuvre in the context of war. I then outline the differences between conventional and unconventional war, exploring some prominent unconventional warfare activities. I argue that the tenants of manoeuvre warfare encompass a wide breadth of activities that can defeat either a conventional or unconventional adversary.

In the second section, the discussion of unconventional warfare is situated in a 21<sup>st</sup> century context, arguing that 'wicked problems' have become the most persistent and difficult issues facing modern states and that this trend will continue into the future.

The third section looks to the past, examining military engagements in unconventional wars to understand what right and wrong outcomes look like. Based on observations made by those experienced in fighting unconventional conflicts, I propose a common understanding of 'winning' or the 'desired end state' by defining the pitfalls military action must avoid when conducting these actions, and argue that 'victory' in unconventional war is a nebulous concept, best understood as the inverse of failure.

Section four argues that conventional military forces employing manoeuvre-centric doctrine are capable of winning unconventional wars the measured, precisely targeted application of force, contributing to a comprehensive solution that achieves a desirable end state while avoiding the pitfalls of undesirable outcomes. Further reflecting on contemporary conflicts, this section discusses the evolutions in strategic thinking that are driving current developments in Comprehensive Approach (CA) doctrine, arguing that this is an evolution of the tenants of manoeuvre warfare on a whole-of-government scale to address the breadth and complexity of wicked problems. Finally, this section explains the roles that conventional military forces fill in a CA campaign, and situates this military participation in a context of the roles of other stakeholders. From this understanding, the efficacy of comprehensive approaches to security problems can be better quantified.

Lastly, I argue the continued relevance of maintaining large-scale conventional forces in the 21<sup>st</sup> century. Evidenced by the U.S. experience in Iraq from 2003-2010, post-conflict environment stability and security operations require substantial conventional military forces. Credible deterrence and force sustainment also demand large scale forces that are conventionally generated, equipped and trained. Future force generation activities will continue to prepare the

conventional army to fight unconventional wars and implement comprehensive solutions; these are essential preparations in order to succeed in the security operations of tomorrow.

#### **Defining the Terms: Manoeuvre and Attrition as Complementary Ideas**

Manoeuvre as a modern concept of war was born from the U.S. military's conventional response to the building threat from Warsaw Pact force superiority. Over the decades that followed, bolstered by a massive U.S. influence on global military thinking, manoeuvre became widely accepted as a both "a style of warfare and a generic concept of operation." In this late 20<sup>th</sup> century context, manoeuvre is action that attacks "the enemy's cohesion through a variety of rapid, focused, and unexpected actions, which create a turbulent and rapidly deteriorating situation with which the enemy cannot cope." Manoeuvre in this context is not the physical movement of forces for its own sake, but rather a sum of intellectual acts that combine *both* destructive power (fires) *and* movement, intelligently designed to overwhelm the command and control structure of the adversary to the point where it can no longer function. This action seeks to disrupt, and ultimately destroy an opponent's equilibrium. Put simply, "[the opponent] can no longer respond in a coordinated fashion to the moves of [his adversary]."

Academic study of manoeuvre warfare is based, not insubstantially, on the premise that there is an inverse theory; Attrition Warfare. Attrition seeks an opponent's defeat solely through "killing and destruction [of the opponent's fighting mass], whereas manoeuvre defeats by

<sup>&</sup>lt;sup>1</sup> William F. Owen, "The Manoeuvre Warfare Fraud." Small Wars Journal, September 2008, 1.

<sup>&</sup>lt;sup>2</sup> Ibid

<sup>&</sup>lt;sup>3</sup> MCDP-1 'War fighting' page 73

<sup>&</sup>lt;sup>4</sup> Robert H. Scales, "A Sword with Two Edges: Maneuver Warfare in the 21<sup>st</sup> Century," in *Future Warfare: Anthology. Revised edition* (Carlisle Barracks, PA: U.S. Army War College Strategic Studies Institute, 2001), 76-77.

attacking those components without which the greater body of the enemy cannot fight, such as command and logistics." FMFM 1 offers the following definition:

Warfare by attrition seeks victory through the cumulative destruction of the enemy's material assets by superior firepower and technology. An attritionist sees the enemy as targets to be engaged and destroyed systematically. Thus the focus is on efficiency lead to a methodical, almost scientific approach to war. <sup>6</sup>

Arguments differentiating manoeuvre from attrition assert that manoeuvre is skilled while attrition is clumsy. In his accounting of the U.S. experience in Vietnam, Palmer, an officer of the U.S. army and military practitioner, applies this very argument: "attrition is not a strategy. It is, in fact, irrefutable proof of the absence of any strategy. A commander who resorts to attrition admits his failure to conceive of an alternative." Owen counters this thinking, arguing that any construct placing manoeuvre in opposition to attrition is false; "it makes no sense to favour one form over the other. To do so is to limit available options by slavish adherence to ways over ends." Attempts to place manoeuvre and attrition within a spectrum of warfare also fail to adequately capture a functional distinction between the two; they are best explained and understood as complementary ideas, rather than distinct theoretical approaches to war. To further clarify this point, consider the circumstance where manoeuvre gains a position of advantage relative to an opponent, and this advantageous position is then used to violently attrite an opposing force. In *Race to the Swift*, Richard Simpkin sees the basis of manoeuvre theory as pre-emption and surprise, where manoeuvre drew success from "the seizure of opportunity."

-

<sup>&</sup>lt;sup>5</sup> William F. Owen, "The Manoeuvre Warfare Fraud." Small Wars Journal, September 2008, 1

<sup>&</sup>lt;sup>6</sup> FMFM-1 'War fighting' page 28

<sup>&</sup>lt;sup>7</sup> William F. Owen, "The Manoeuvre Warfare Fraud." Small Wars Journal, September 2008, 2.

<sup>&</sup>lt;sup>8</sup> Dave R. Palmer, Summons of the Trumpet: U.S. – Vietnam in Perspective. (Novato: Presidio Press, 1978), 117.

<sup>&</sup>lt;sup>9</sup> William F. Owen, "The Manoeuvre Warfare Fraud." *Small Wars Journal*, September 2008, 2. <sup>10</sup> *Ibid* 

<sup>&</sup>lt;sup>11</sup> William F. Owen, "The Manoeuvre Warfare Fraud." Small Wars Journal, September 2008, 8.

<sup>&</sup>lt;sup>12</sup> Richard E. Simpkin, *Race to the Swift: Thoughts on 21<sup>st</sup> Century Warfare*. London: Pavillion, 1998. In William F. Owen, "The Manoeuvre Warfare Fraud." *Small Wars Journal*, September 2008, 7.

Complementing the allocation and positioning of forces, the utility of attrition is evidenced through its ability to "deter an opponent, or force him to comply by making him fear harm and therefore, perhaps, for the user to win without fighting."<sup>13</sup>

In support of this reasoning, consider that "despite having 20 years of Manoeuvre Warfare doctrine behind them, U.S. Marines do not appear to have any discomfort or unfamiliarity with regard to employing attritional methods." The difficulty in war is appreciating which style, tactic, design or approach will work best in a changing situation. Eric Walters further reinforces the argument that manoeuvre and attrition are complimentary, recalling "the insight and mental agility of General U.S. Grant, who showed his mastery of one style of war in the Vicksburg campaign of 1863 and quite another in his drive towards Richmond in 1864."

Critics voice legitimate concerns that, during peace, the focus of manoeuvre often turns to designing bloodless wars and shortchanges the continuing requirement to maintain capable, conventional forces. But, as Walters and Owen agree, "nobody argues vociferously against operating at higher tempos or having better focus against enemy weaknesses instead of strengths [and] nobody disagrees that shattering enemy cohesion and will is a good thing when you can do it."

-

<sup>&</sup>lt;sup>13</sup> *Ibid*.

<sup>&</sup>lt;sup>14</sup> Eric Walters, "Fraud or Fuzziness? Dissecting William Owen's Critique of Maneuver Warfare." *Small Wars Journal Blog*, Last modified 15 September 2008 http://smallwarsjournal.com/blog/fraud-or-fuzziness-dissecting-william-owens-critique-of-maneuver-warfare

<sup>&</sup>lt;sup>15</sup> *Ibid*.

<sup>&</sup>lt;sup>16</sup> Eric Walters, "Fraud or Fuzziness? Dissecting William Owen's Critique of Maneuver Warfare." *Small Wars Journal Blog*, Last modified 15 September 2008 http://smallwarsjournal.com/blog/fraud-or-fuzziness-dissecting-william-owens-critique-of-maneuver-warfare

### **Defining the Terms: Conventional and Unconventional Warfare**

There is another type of warfare—new in its intensity, ancient in its origin—war by guerrillas, subversives, insurgents, assassins; war by ambush instead of by combat, by infiltration instead of aggression, seeking victory by eroding and exhausting the enemy instead of engaging him. It preys on unrest. The ultimate goal of this type of warfare is to motivate an enemy to stop attacking or resisting even if it has the ability to continue.

- John F. Kennedy

In addition to understanding the discourse surrounding manoeuvre and attrition warfare, differentiation must be made between conventional war and irregular war. An internet search provides a widely accepted definition of conventional wars as "the open military confrontations that occur between states, fought by uniformed forces using conventional weapons and tactics, seeking to defeat the adversary through destruction of their war making capacity or seizure of territory."<sup>17</sup> The forces on each side of a conventional war are well-defined, trained, equipped and sustained by the state, and fight using weapons that primarily target the opponent's military with the objective of negating the opponent's continuing ability to engage on the battlefield. <sup>18</sup>

In contrast to conventional warfare, irregular war departs from the recognized conventions or "normative, regulative and cognitive" practices of inter-state warfighting.<sup>19</sup>

Although irregular warfare may employ a full range of military and paramilitary capabilities, it favors indirect and asymmetric approaches to fighting in order to erode the adversary's power, influence, and will. It is inherently a protracted struggle that will test the resolve of a state and its strategic partners. Where conventional warfare reduces the opponent's military capability,

<sup>&</sup>lt;sup>17</sup> Wikipedia. "Conventional Warfare" Last accessed 11 May 2015. http://en.wikipedia.org/wiki/Conventional\_warfare

<sup>&</sup>lt;sup>19</sup> Eric Ouellet and Pierre C. Pahlavi, "Institutional Analysis and Irregular Warfare: A Case Study of the French Army in Algeria 1954–1960" *The Journal of Strategic Studies* 34, no. 6 (December 2011): 799–824.

irregular wars seek to achieve military victory through acquiescence, capitulation, or clandestine support for one side of an existing conflict. Irregular war is an umbrella term that encompasses unconventional warfare, which itself includes the military or paramilitary support to an armed group seeking three core goals; resistance or political autonomy from an established government; increased power and influence relative to its political rivals without overthrowing the legitimate government; and actions that resist or expel a foreign occupying power.<sup>20</sup> The general objective of unconventional warfare is to instill a belief that peace and security are not possible without compromise or concession, cultivated through the inducement of war-weariness, curtailment of civilian standards of living and civil liberties associated with greater security demands, economic hardship linked to the costs of war; hopelessness to defend against assaults, terror, depression, and disintegration of morale.<sup>21</sup> Key to these definitions is the premise that unconventional war involves non-state actors and the use of violence to gain and exercise legitimate influence over populations.

It is necessary to contrast conventional and unconventional warfare in order to frame a discussion of how conventional armies fight unconventional forces, and vice-versa. From the outset, the purpose of both conventional and unconventional war is to win – to achieve the strategic purpose of the war – and winning wars and campaigns involves the control of forces, populations, and territory. States engaged in conventional warfare have traditionally assumed that the populations within the operational area are non-belligerents and will accept whatever political outcome the belligerent governments impose, arbitrate, or negotiate and have traditionally sought to minimize civilian interference in military operations.

<sup>&</sup>lt;sup>20</sup> Wikipedia. "Irregular Warfare." Last accessed 11 May 2015. http://en.wikipedia.org/wiki/Irregular\_warfare

In contrast, unconventional warfare, and indeed irregular warfare writ large, is a political struggle with violent and non-violent components and focused on the control or influence of populations, *not* on the strict control of an adversary's forces or territory. The foundation for unconventional war is the centrality of the relevant populations to the nature of the conflict; the fighting parties seek to undermine their adversaries' legitimacy and credibility, isolating them from their external supporters' relevant populations, both physically and psychologically. At the same time, they also seek to bolster their own legitimacy and credibility in order to exercise authority over that same population.

The key distinction then, between conventional and unconventional wars, turns centrally on control over populations versus control over territories and terrain, with conventional forces traditionally focused on the latter. If manoeuvre is an efficient, skilled way to fight conventional forces, and irregular warfare is viewed as an efficient means of achieving military objectives in support of the national interest, it reflects on the previous arguments that sought to distinguish between manoeuvre and attrition, where attrition was seen as a clumsy or unskilled way of fighting and manoeuvre was an efficient, skilled use of force. Conventional forces manoeuvering in a comprehensive approach context are equally capable of projecting power and influence onto populations as unconventional forces. If unconventional warfare is *the* efficient way to fight against conventional forces, then an understanding of conflicts between conventional and unconventional forces must acknowledge that both parties to such a fight must seek to influence and control the same critical populations.

## Wicked Problems – Guerrillas, Insurgency and Unconventional War in the 21st Century

No, that's someone else's business, quagmires. I don't do quagmires.

Donald Rumsfeld

A global context of well-established international law and conflict resolution mechanisms, unprecedented inter-state economic interdependencies, and highly effective peer-on-peer military defence and security capabilities, effectively mitigate and deter conventional conflict, but disparities will always exist and tension and discord will result. When these persistent, complex and interrelated tensions escalate into wars in the 21<sup>st</sup> century, those wars will be unconventional. In *The Utility of Force: The Art of War in the Modern World* Gen. Sir Rupert Smith postulated that "...in the post-Cold War period these kinds of 'wars amongst the people' represent the future of armed conflict." It is the complex socio-political tensions that underpin unconventional wars, and their resistance to any efforts at resolution, that create the persistent problems that will define the single greatest security challenge states will face in the foreseeable future.

The dawn of the cold war revealed a new level of complexity in planning for and fighting wars, not only in the actual engagement and defeat of an adversary, but also in understanding the second and third-order consequences and effects of military action. The nature of these types of problems has been termed 'wicked problems'; the term 'wicked' specifically implying the problem's innate resistance to resolution. These complex problems share counterintuitive interdependencies with other problems, characterized by contradictory and constantly changing

<sup>&</sup>lt;sup>22</sup>Gen. Sir Rupert Smith, *The Utility of Force: The Art of War in the Modern World* (London: Allen Lane 2005) quoted in Paul Dixon, "Hearts and Minds? British Counter-Insurgency from Malaya to Iraq." *Journal of Strategic Studies* 32, no. 3 (June 2009): 356.

solutions, making them often undefinable and effectively unsolvable.<sup>23</sup> In the post 9/11 world, military planners, civilian policymakers and outside observers share a common understanding of the wicked problem; all parties to modern conflicts recognize that any effort to resolve a wicked problem will likely result in the creation of myriad other unforeseen and unpredictable problems.

The U.S. army has acknowledged the wicked problem as a shift from a *complicated* world, typified by the soviet threat on the European battlefield, to a *complex* world, with an unknowable adversary in an unknowable environment. The complicated world was viewed as analogous to a large, intricate machine, and an understanding of the machine and its workings (largely an exercise in logic and intelligence activities) would facilitate accurate output predictions given a known input. This facilitated military planning and policy development, and lead to the creation of AirLand Battle as the U.S. army's manoeuvre doctrine from the 1980's to present day. As conflicts have trended towards involving a greater number of non-state actors, the persistence of wicked problems has increased and the world is now viewed not as complicated, but rather as complex. Conflict in this complex world occurs where both the adversary and the environment are not only unknown, but unknowable. It is an environment typified by the nature of the wicked problem, where any given input will result in any number of outputs that cannot be foreseen or predicted, but none-the-less must be somehow accounted for in military and policy planning.

Wicked problems and unconventional warfare and go hand-in-hand. Unconventional wars that pit the legitimate forces of a state against an opposing force of nebulous composition and legitimacy will create all the aforementioned conditions (contradictory, unintuitive, interdependent and constantly changing solution sets) that define the wicked problem. The U.S.

<sup>&</sup>lt;sup>23</sup> For a full explanation, see Horst W Rittel. and Melvin M. Webber. "Dilemmas in a General Theory of Planning" *Policy Sciences* 4, (1973): 158-161.

led 2003 intervention in Iraq is a recent sample that illustrates modern warfighting as a wicked problem, but it is certainly not the only case; the last half-century is rife with examples.

In 1962 the term 'counter-insurgency' was coined in the U.S. as an early attempt to quantify the peculiarly complex problem presented when governments wage war against nonstate actors who draw at least some level of legitimacy from a base of substantial popular support. 24 It was quickly recognized that any action or intervention would create unforeseen and unpredictable after-effects, in large part because of the legitimacy of their popular support and the unpredictability of the reaction to any form of intervention. In accounting for the evolution of unconventional warfare as a wicked problem since the 1980's, Max Boot reflects on the shift from socialist-based ideological guerrilla fighters through capitalism's rise in popularity and the subsequent decline in all forms of popular support and backing of Marxist rebel fighters. However, the decline of these particular motivations did not remove the very real threats the fighters presented; occurrences of guerrilla warfare and terrorism simply assumed different forms "as new militants motivated by the oldest grievances of all -- race and religion -- shot their way into the headlines."<sup>25</sup> A concise accounting of the evolution of unconventional actions since the takeover of the U.S. embassy in Tehran illustrates the spread of stateless threats across the globe in the last 4 decades:

[The takeover of the U.S. embassy in Tehran] was followed by the militant takeover of the Grand Mosque in Mecca, the holiest shrine in Islam, and the burning of the U.S. embassy in Islamabad. And then, on December 24, 1979, the Soviets marched into Afghanistan, thus inspiring the mobilization of a formidable force of holy guerrillas: the mujahideen.

The threat from Islamist extremists, which had been building sub rosa for decades, burst into bloody view on September 11, 2001, when al Qaeda staged

<sup>&</sup>lt;sup>24</sup> Paul Dixon, "Hearts and Minds? British Counter-Insurgency from Malaya to Iraq." *Journal of Strategic Studies* 32, no. 3 (June 2009): 356.

<sup>&</sup>lt;sup>25</sup> Max Boot, "The Evolution of Irregular War: Insurgents and Guerrillas from Akkadia to Afghanistan." *Foreign Affairs*. (March/April 2013).

the deadliest terrorist attack of all time. Previous terrorist organizations, from the PLO to various anarchist groups, had limited the scale of their violence. As the terrorism analyst Brian Jenkins wrote in the 1970s, "Terrorism is theater. . . . Terrorists want a lot of people watching, not a lot of people dead." Al Qaeda and its ilk rewrote that playbook in the United States and Iraq.

Meanwhile, other Islamist groups continue to show considerable strength in Afghanistan and Pakistan, Hamas controls the Gaza Strip, Hezbollah holds sway in Lebanon, al Shabab bids for power in Somalia, Boko Haram advances in Nigeria, and two newer groups, Ansar Dine and the Movement for Unity and Jihad in West Africa, have taken control of northern Mali. Notwithstanding bin Laden's death and other setbacks to al Qaeda central, the war against Islamist terrorism is far from won. The 9/11 attacks serve as a reminder that seeming security against an invisible army can turn to vulnerability with shocking suddenness and that, unlike the more geographically restricted insurgents of the past, international terrorist groups, such as al Qaeda, can strike almost anywhere.<sup>26</sup>

The relationship between unconventional warfare, manoeuvre and the wicked problem was examined by Liddell-Hart in the *Indirect Approach*, where he articulated that "the aim was to paralyze the enemy, not destroy him. The chief premise was the notion that one good blow against the key vulnerability of the enemy could render him helpless or so reduce his capability that he might be more easily overcome." His argument is that military action is successful when it employs the tenants of manoeuvre, with the key element being that of surprise, where military planning and the employment of forces strikes an enemy that is "unprepared and is thus less able to respond effectively." Max Boot echoes this sentiment, identifying the adversary's legitimacy through popular support as a center of gravity, stating "[control] can be maintained only if the security forces have some degree of popular legitimacy [and]... in the fight against

<sup>26</sup> Ibid

<sup>28</sup> *Ibid*.

<sup>&</sup>lt;sup>27</sup> William F. Owen, "The Manoeuvre Warfare Fraud." *Small Wars Journal*, September 2008, 3.

insurgents, conventional tactics don't work. To defeat them, soldiers must focus not on chasing guerrillas but on securing the local population."<sup>29</sup>

Unconventional warfare is by its very nature a wicked problem, and its future may be in what has been termed 'lawfare', where a non-state opponent engages conventional forces in such a way where they are enticed to break laws, thus alienating them from the basis of their popular support and legitimacy. This allows non-state adversary to attack states at a critical center of gravity – their respect for the rule of law – and narrows the aperture for conventional force engagements while simultaneously widening the use of force options available to the insurgent forces." Whatever future exploits are made in the realm of unconventional war, both the causes of, and solutions to unconventional war are contradictory, complex, and unsolvable.

Unconventional warfare is a nest of wicked problems.

## Lessons from the Past – Inferring 'What Right Looks Like'

All historians will acknowledge that, notwithstanding the interpretation of the details, war's character "can be perceived accurately only through the lens of history. . . because the past . . . reveals aspects of war which are timeless." This section is a brief reflection on conventional military engagements in unconventional wars, and seeks to define what 'winning', 'victory' and 'the desired end state' *are* in the context of unconventional war, or more accurately, what they *are not*. This understanding will be drawn upon to support the argument that conventional forces can use manoeuvre to win unconventional wars.

<sup>&</sup>lt;sup>29</sup> Max Boot, "The Evolution of Irregular War: Insurgents and Guerrillas from Akkadia to Afghanistan." *Foreign Affairs*. (March/April 2013).

<sup>&</sup>lt;sup>30</sup> Paul Van Riper and Robert H. Scales, Jr., "Preparing for War in the 21<sup>st</sup> Century," in *Future Warfare: Anthology. Revised edition* (Carlisle Barracks, PA: U.S. Army War College Strategic Studies Institute, 2001), 31.

We must begin by considering the adversary in the correct, modern context, apart from the hyperbole that grows before and during conflict. While unconventional war has the very real capability to inflict destruction and death, its complex, unknowable nature tends to lend it an aura of mystique that skews perception of its true efficacy. It is vitally important to neither overestimate nor underestimate the capabilities and potency of unconventional combatants. The reliance on public support as a key center of gravity has seen guerilla fighters take on never before seen levels of legitimacy since 1945, correlated directly with their access to communications technologies and the increasing influence of public opinion. Consider that,

Before 1945, since irregulars refused to engage in face-to-face battle, they were routinely underestimated. After 1945, however, popular sentiment swung too far in the other direction, enshrining guerrillas as superhuman figures. The truth lies somewhere in between: insurgents have honed their craft since 1945, but they still lose most of the time. [The increasing influence of public opinion] has sapped the will of states to engage in protracted counterinsurgencies, especially outside their own territories, and have heightened the ability of insurgents to survive even after suffering military setbacks.<sup>31</sup>

An important deduction to draw from this statement is that defeat of an insurgency cannot simply be equated to a military defeat; the repeated observation is that insurgents survive military setbacks. This was similarly noted by General Sir Frank Kitson of his counterinsurgency experiences in Kenya, Malaya and Northern Ireland: "There can be no such thing as a purely military solution because insurgency is not primarily a military activity." 32

Indeed, in reflecting on the French counter-insurgency in Algeria in the 1950's, the efficacy of a solely military defeat was discounted, as such an action would only serve to ignite further discontent and led to future conflict rather than stability and security:

<sup>&</sup>lt;sup>31</sup> Max Boot, "The Evolution of Irregular War: Insurgents and Guerrillas from Akkadia to Afghanistan." *Foreign Affairs*. (March/April 2013).

<sup>&</sup>lt;sup>32</sup> Paul Dixon, "Hearts and Minds? British Counter-Insurgency from Malaya to Iraq." *Journal of Strategic Studies* 32, no. 3 (June 2009): 357-358.

...a country is not conquered and pacified when a military operation has decimated or subjected its inhabitants by means of terror, concluding that barely has the fighting stopped that the seeds of rebellion start geminating in the masses, reinforced the bitterness accumulated by the brutal action of force...<sup>33</sup>

There are no quick solutions to insurgencies. The only effective solutions are ones that address the root causes of conflict in a comprehensive way, be they social, political or economic, not simply military actions that counter and defeat the threats or attacks of an adversary. Thus, legitimate conventional forces, and thereby the legitimate states that employ them, must employ techniques that address root causes in order to achieve meaningful and enduring results. It is this requirement for meaningful solutions to wicked problems that makes counterinsurgency all the more difficult. Reflecting on the duration of insurgencies and their resolutions, it is interesting to observe that

Since 1775, the average insurgency has lasted seven years (and since 1945, it has lasted almost ten years). Attempts by either insurgents or counterinsurgents to short-circuit the process usually backfire. The United States tried to do just that in the early years of both the Vietnam War and the Iraq war by using its conventional might to hunt down guerrillas in a push for what John Paul Vann, a famous U.S. military adviser in Vietnam, rightly decried as "fast, superficial results." It was only when the United States gave up hopes of a quick victory, ironically, that it started to get results, by implementing the tried-and-true tenets of population-centric counterinsurgency.<sup>34</sup>

Thus, if it is not clear what victory, winning, and the desired end state are, it is clear what they are not. Victory is not rendering an adversary incapable of fighting through military destruction; insurgencies survive military setbacks and defeats. Nor can the military decimation of an adversary or subjugation of a place's inhabitants by means of terror or violence serve to

<sup>&</sup>lt;sup>33</sup> Instruction du 22 mai 1898, quoted in Edward Mead Earle (ed.), Les Maı<sup>^</sup>tres de la Strate gie, Vol. I (Paris: Champs Flammarion 1985), 277–8 in Eric Ouellet and Pierre C. Pahlavi, "Institutional Analysis and Irregular Warfare: A Case Study of the French Army in Algeria 1954–1960" *The Journal of Strategic Studies* 34, no. 6 (December 2011): 804-805.

<sup>&</sup>lt;sup>34</sup> Max Boot, "The Evolution of Irregular War: Insurgents and Guerrillas from Akkadia to Afghanistan." *Foreign Affairs*. (March/April 2013).

achieve the desired end state, if such acts only serve to germinate the seeds of rebellion in the masses and reinforce accumulated bitterness in the population. In such cases future conflict is then all but inevitable, and little, if anything is won. Indeed, a reflection on the recent U.S. experiences in Iraq offers that "Victory—or more accurately, success—in this type of war is much more difficult to determine. Instead of a clearly defined end-state where one side capitulates, success in these irregular conflicts is measured by the political outcome that results from the intervention."<sup>35</sup>

The inference drawn from these considerations is that any lasting victory must involve the resolution of the initial grievance that instigated the conflict, whether that resolution is achieved through the imposition of the law through force upon the aggrieved, or through amendment of the law through capitulation or forced negotiation on the part of the state. In either case, the critical element must be that the solution is acceptable to the party imposing it and legitimate to the party accepting it. In this context then, there is an identifiable military role that contributes to winning. That role is in the deliberate, targeted and measured application of force to either gain compliance or capitulation, not simply the application of overwhelming force for the sake of destruction and attrition. Thus conventional military forces are a component part of a comprehensive solution to a complex problem, and the tenants of manoeuvre warfare impart the characteristics of flexibility, mobility and adaptability that allow their successful employment in fighting unconventional wars.

<sup>&</sup>lt;sup>35</sup> Michael R. Melillo, "Outfitting a Big War Military with Small War Capabilities." *Parameters: The US Army War College Quarterly.* (Autumn 2006): 26.

### Manoeuvre Evolved: Conventional Forces and a Comprehensive Approach to Security

Irregular warfare requires by definition a degree of adaptation from the conventional to the non-conventional; success in defeating the enemy is in part dependent on the friendly forces' capability to adapt to a new context.<sup>36</sup>

As aggrieved non-state parties continue to manifest unconventional ways and means to fight states, the conventional forces of those states have evolved their own ways and means to meet and defeat unconventional forces. Conventional military forces employ an intelligent combination of both *fires* and *movement* to overwhelm an adversary, *they manoeuvre*, in order to apply targeted and measured force to gain compliance or capitulation and attain control of the unconventional security situation. When fighting unconventional conflicts, conventional military forces contribute to victory by addressing the security components of a wicked problem, while concurrently collaborating with other agencies or stakeholders to address the critical issues that exist beyond the military sphere. In a 21<sup>st</sup> century context, the result is not strictly a military solution, but rather a comprehensive solution that addresses social, economic and political root causes. As observed by General (ret'd) Andrew Leslie, "While this arena has long been regarded as being of secondary importance to the military, times have changed. . . this perspective calls for bringing previously separate agencies into closer collaboration in achieving policy objectives." <sup>37</sup>

The move towards adopting a coordinated, inter-agency approach to resolving security issues is an explicit effort to address the myriad complex challenges that comprise the wicked problems at the root of unconventional wars. These challenges range from those that are largely military in nature, such as highly fluid and multidimensional conflict zones and dispersion of adversaries in geographical space, to those challenges more closely align with the mandates,

<sup>&</sup>lt;sup>36</sup> Eric Ouellet and Pierre C. Pahlavi, "Institutional Analysis and Irregular Warfare: A Case Study of the French Army in Algeria 1954–1960" *The Journal of Strategic Studies* 34, no. 6 (December 2011): 799.

<sup>&</sup>lt;sup>37</sup> Andrew Leslie, Peter Gizewski and Michael Rostek, "Developing a Comprehensive Approach to Canadian Forces Operations." *Canadian Military Journal* 9, no. 1, 11-20.

resources and skills of NGOs, health providers and police. It is critical that both military and non-military challenges are addressed with equal levels of effort, resources and commitment, because issues such as famine, disease and civil disorder often threaten the security of societies as much as open conflict. As previously discussed, unconventional conflict is a population centric activity, and thus military operations in a 21<sup>st</sup> century context are "as much about gaining legitimacy among surrounding populations as they are about engaging in armed combat and destroying adversaries." Further, fighting in unconventional conflicts requires that conventional forces be multidisciplinary;

not only must they be capable of effectively conducting a range of operations (i.e. high intensity combat in one area, stabilization operations in another, and humanitarian aid or support in a third), but they must be able to quickly and effectively transition from one mission to another. Given that missions may overlap, troops must also be capable of conducting a variety of operations simultaneously, and often, as part of broader, integrated teams.<sup>39</sup>

From a 21<sup>st</sup> century view, collaborative whole of government, interagency approaches to complex security issues are nothing strictly new; a variety of familiar terms reflect the evolving approaches. Terms such as 3-D (Defence, Diplomacy and Development), Civil-Military Cooperation (CIMIC) and Joint-Interagency-Multinational-Public (JIMP) all embody the principles of multi-actor cooperation to resolve the causes of conflict across a spectrum beyond the scope of strictly military action. The future lies in the removal of institutional barriers and resolving persistent lessons-learned to enable a true Comprehensive Approach to security operations in an evolving contemporary context.<sup>40</sup>

<sup>38</sup> Ibid.

<sup>&</sup>lt;sup>39</sup> *Ibid.* 

<sup>&</sup>lt;sup>40</sup> Michael Rosteck and Peter Gizewski, eds. *Security Operations in the 21<sup>st</sup> Century: Canadian Perspectives on the Comprehensive Approach*. (Kingston and Montreal: McGill-Queen's University Press, 2011): 10.

A key change in thinking must occur as conventional forces integrate in a comprehensive approach to security; military planners and practitioners must change their thinking about war as a decisive action, instead situating intelligently designed military plans and actions, *manoeuvre*, in the context of a coordinated effort to address the root causes of conflict. This necessarily requires close liaison with civil actors, and the coordination of support between military and civilian elements.<sup>41</sup>

As lessons from recent operations are reflected upon and future actions considered, and number of significant concerns and barriers to the successful implementation of the compressive approach to security operations have been identified, and must be addressed. Although seemingly straightforward, issues constraining the practical aspects of multi-agency interoperability, such as information technology compatibility, security clearances and physical colocation, have proven difficult to resolve. Even more elusive has been the strategic will to deconflict divergence departmental mandates, coordinate policies and allocate resources that equitably enable responsible agencies to fulfill their appropriate mandates in the context of executing a comprehensive approach to security operations.

Further complications have arisen as tasks that have traditionally been separate from military activities have assumed an increasingly militarized role, especially in the case of humanitarian aid provision. <sup>42</sup> There is legitimate concern that the inter-agency nature of the comprehensive approach to security operations, by its very nature, militarizes activities that otherwise maintain a strictly non-military, and therefore impartial, relationship with the parties in conflict. In further amplifying the risks of undermining the humanitarian principles of neutrality,

<sup>&</sup>lt;sup>41</sup> Kimberly Unterganschnigg, "Canada's Whole of Government Mission in Afghanistan – Lessons Learned." *Canadian Military Journal* 13, no. 2. (Spring 2013): 8-16.

<sup>&</sup>lt;sup>42</sup> Stephen Cornish, and Marit Glad. "Civil-Military Relations: No Room for Humanitarianism in Comprehensive Approaches." The Norwegian Atlantic Committee Paper 5-2008.

impartiality and independence, <sup>43</sup> General Lesile warns that "CA effort may not foster the collaboration and cooperation it seeks to achieve. In this regard, it should be noted that NGOs have found it especially difficult to strike an effective balance between interacting with official agencies and retaining the independence they view as necessary to pursue their goals effectively."<sup>44</sup> In this regard it is uncertain what effects this trend will have on NGOs' ability to access and operate within conflict areas as impartial providers of aid, in accordance with the humanitarian principles enshrined in law and convention.

Notwithstanding these challenges, conventional military forces continue to demonstrate strong capabilities and potential to contribute to lasting security solutions by directly addressing the security components of a wicked problem. Further efforts and application of hard-learned lessons will enable further collaboration with non-military stakeholders to address the critical issues that exist beyond the military sphere.

## The Continued Relevance of Maintaining Conventional Forces in the 21st Century

The best strategy is always to be very strong

- Clausewitz

In adopting the view that military forces in the 21<sup>st</sup> century will serve as supporting actors to the multiagency efforts that address security issues, there is a temptation to believe that forces of the size and scale of the cold-war era are no longer relevant, and efficiencies of smaller, nimbler forces could be enjoyed without sacrificing effectiveness. This is a false understanding, and the potential pitfalls of such thinking are demonstrated here through three separate but interrelated considerations; the requirement to maintain credible deterrence, the real quantitative

<sup>&</sup>lt;sup>43</sup> Ibid.

<sup>&</sup>lt;sup>44</sup> Andrew Leslie, Peter Gizewski and Michael Rostek, "Developing a Comprehensive Approach to Canadian Forces Operations." *Canadian Military Journal* 9, no. 1, 18.

requirements demanded by stabilization missions in post-conflict regions, and finally, the ability to sustain forces once deployed.

Credible deterrence is a concept which, "although inherently complex in application, was conceptually simple: the persuasion of one's opponent that the costs and/or risks of a given course of action he might take outweigh its benefits." A state, possessing a sufficiently large conventional force, is capable of implementing a security policy composed not only of the capabilities to defeat an adversary, but also to coerce, either through deterring it from taking negative actions, or compelling it to take beneficial actions. It is through the deterrence effect provided by large and credible forces, rather than fighting with smaller forces, that true efficiencies are realized; costs in both a human and material sense are much less when fighting is avoided, and a real and acknowledge that the credible threat of failure makes fighting less likely to occur from the outset, and recall that history has taught us military forces "exist to deter as well as fight... our understanding of the dynamics of deterrence remains imperfect, but we have learned that a key requirement is making a deterrent threat credible."

The U.S. experience in Iraq following the end to large scale state-on-state conflict in May 2003 has demonstrated that, perhaps counter-intuitively, security operations in poet-conflict environments require large numbers of forces. In the lead-up to this sustained operation, the US Army's assessment of the "magnitude of the army's force requirements for an occupation of Iraq" was communicated by General Eric Shinseki in his testimony before the Senate Armed Services Committee that "several hundred thousand" troops would be necessary, citing that

<sup>&</sup>lt;sup>45</sup> Alexander L. George and Richard Smoke, Deterrence in American Foreign Policy: Theory and Practice (New York: Columbia University Press, 1974), 11., quoted in *Conventional Coercion Across the Spectrum of Operations: The Utility of US Military Forces in the Emerging Security Environment*, 1.

<sup>&</sup>lt;sup>46</sup> David E. Johnson, Karl P. Mueller and William Howard Taft V. Conventional Coercion Across the Spectrum of Operations: The Utility of US Military Forces in the Emerging Security Environment. (Santa Monica: The RAND Corporation, 2002), 9.

<sup>&</sup>lt;sup>47</sup> Paul Van Riper and Robert H. Scales, Jr., "Preparing for War in the 21<sup>st</sup> Century," in *Future Warfare: Anthology. Revised edition* (Carlisle Barracks, PA: U.S. Army War College Strategic Studies Institute, 2001), 37.

geographical area and religious/tribal complications are to be expected. Yet this advice was resisted by policymakers, represented by Paul Wolfowitz, who stated that it would be "hard to conceive that it would take more forces to provide stability in post-Sadam Iraq than it would take to conduct the war itself and to secure the surrender of Sadam's security forces and his army." Military observers at the time noted the flaws in this thinking, and reflected with disbelief that these views were being so widely perpetuated in the interests of false efficiencies, when, as one journalist stated, "anyone who had any experience in the interventions of the '90s knew that the opposite was true. You need X number of soldiers per thousand citizens simply to provide a modicum of security." These forces can only be provided in the numbers and density necessary for success if conventional forces are maintain on a large scale, and are ready, trained and equipped to deploy when required.

Lastly, the ability to sustain operations in both conventional and unconventional conflicts necessarily requires the maintenance of large conventional forces. In examining what capabilities will be required of the U.S. military to fight both large and small wars, Lieutenant General Mattis communicated that "future wars will be characterized by the confluence of different modes and means of war. . . [and] the choice between conventional and nontraditional wars is a false option set. The US military will face both, perhaps simultaneously in the same battlespace." This necessitates the requirement to maintain large, strong forces, capable of employing "diplomatic, defence, development, and commercial resources, aligned with those of

\_

<sup>&</sup>lt;sup>48</sup> Gen Eric Shinseki's testimony before the Senate Armed Services Committee, 25 Feb 2003. In No End In Sight Documentary,(January 2007) last accessed 11 May 2015 https://www.youtube.com/watch?v=Nyfm75jmkbI 29:43-30:00.

<sup>&</sup>lt;sup>49</sup> Paul Wolfowitz, 27 Feb 2003 In No End In Sight Documentary, 30:12-30:27.

<sup>&</sup>lt;sup>50</sup> George Parker, In No End In Sight Documentary, 30:27-30:48.

<sup>&</sup>lt;sup>51</sup> Michael R. Melillo, "Outfitting a Big War Military with Small War Capabilities." *Parameters: The US Army War College Quarterly.* (Autumn 2006): 34.

numerous other agencies, coordinated through an integrated campaign plan, and then applied in areas of operations as needed" allowing the sustainment of effort in a comprehensive approach.<sup>52</sup>

The defence strategies being developed for the 21st century recognize the permanence of these realities. The 2005 QDR identified irregular warfare as "the dominant form of warfare confronting the United States," and its force planning construct "places both homeland defense and irregular warfare on an equal footing with conventional warfighting." The pervasiveness of comprehensive solutions to the problems of conflict will only continue as policy makers continue to recognize that, in a general sense U.S. objectives are "not accomplished unilaterally by any Government entity. They are accomplished by the cooperative efforts of all departments and agencies... [and] identifying shared U.S. objectives and developing mutually supportive strategies and programs are necessary for us to attain national objectives." The flexibility, precision and accuracy of conventional man

oeuvre forces enable military contributions to complex campaigns that allow the application of military force to support nation goals, ambitions and strategies in all manner of conflicts across the spectrum of operations.

#### **Conclusion**

Today the US military is experiencing a generational metamorphosis as it grapples with relearning past lessons in counterinsurgency. The *Small Wars Manual*, originally written in 1940, has been dusted off and is required reading on most professional reading lists relating to counterinsurgency and stability operations. This represents a major cultural shift in the military. Avoiding this

<sup>&</sup>lt;sup>52</sup> Andrew Leslie, Peter Gizewski and Michael Rostek, "Developing a Comprehensive Approach to Canadian Forces Operations." *Canadian Military Journal* 9, no. 1, 11-20.

<sup>&</sup>lt;sup>53</sup> Michael R. Melillo, "Outfitting a Big War Military with Small War Capabilities." *Parameters: The US Army War College Quarterly.* (Autumn 2006): 27.

<sup>&</sup>lt;sup>54</sup> General Barry R. McCaffrey, quoted in William D. Mendel and David G. Bradford, *Interagency Cooperation: A Regional Model for Overseas Operations*, (Washington DC: Institute for National Strategic Studies, National Defense University, McNair paper 37, March 1995), 42.

type of small war is no longer possible, since irregular enemies have learned not to confront US forces conventionally.<sup>55</sup>

Future thinking about war requires us to ask what will change and what will remain the same. We have argued that future conflicts will continue to exploit asymmetries between the conventional and the unconventional, and that the legitimate forces of states, working in a comprehensive context, must be prepared and capable to respond to such threats.

To look at the current state of conventional forces, one may be lured to believe that force generation activities are trending back to 'preparing for real, conventional war.' In a post-Iraq, post-Afghanistan environment, the focus has shifted to re-establishing an institutional memory of conventional war and capability while ensuring doctrine, planning and forces themselves remain prepared for unconventional conflict. This trend of not going back to basics, but going forward to fundamentals, is preparing today's conventional forces for the unconventional threats of tomorrow.

<sup>&</sup>lt;sup>55</sup> Michael R. Melillo, "Outfitting a Big War Military with Small War Capabilities." *Parameters: The US Army War College Quarterly.* (Autumn 2006): 29.

#### **BIBLIOGRPHY**

- Berkowitz, Bruce. *The New Face of War: How War Will be Fought in the 21st Century.* New York: The Free Press, 2003.
- Black, Jeremy. War in the New Century. New York: Continuum Books, 2001.
- Boot, Max. "The Evolution of Irregular War: Insurgents and Guerrillas from Akkadia to Afghanistan." *Foreign Affairs*. (March/April 2013) Last accessed 23 April 2015. http://cfr.org/afghanistan/evolution-irregular-war/p30087
- Bretnor, Reginald. Decisive Warfare: A Study in Military Theory. Harrisburg: Stackpole, 1969.
- Clancy, James, and Chuck Crossett. "Measuring Effectiveness in Irregular Warfare." Parameters: The US Army War College Quarterly. (Summer 2007): 88-99.
- Cornish, Stephen, and Marit Glad. "Civil-Military Relations: No Room for Humanitarianism in Comprehensive Approaches." The Norwegian Atlantic Committee Paper 5-2008.
- Coombs, Howard G., and Rick Hillier. "Planning for Success: The Challenge of Applying Operational Art in Post-Conflict Afghanistan." *Canadian Military Journal* 6, no. 3 (Autumn 2005): 5-14.
- Coombs, Howard G., and Michel Gauthier. "Campaigning in Afghanistan: A Uniquely Canadian Approach" In *No Easy Task*, edited by Colonel Bernd Horn. Toronto: Dundurn Press, 2011.
- Coombs, Dr. Howard G. "Canadian Whole of Government Operations in Kandahar September 2010 to July 2011." *Vimy Paper*. Ottawa: The Conference of Defence Associations Institute, December 2012.
- Dixon, Paul. "Hearts and Minds? British Counter-Insurgency from Malaya to Iraq." *Journal of Strategic Studies* 32, no. 3 (June 2009): 353-381.
- Echevarria, Antulio J. *Clausewitz and Contemporary War*. Oxford: Oxford University Press, 2007.
- Egnell, Robert. "Explaining US and British Performance in Complex Expeditionary Operations: The Civil-Military Dimension." *Journal of Strategic Studies* 29, no. 6 (December 2006): 1041-1075.
- Elkus, Adam, and Crispin Burke. "Operational Design: Promise and Problems." *Small Wars Journal*, 2010. Last accessed 18 April 2015. http://smallwarsjournal.com/blog/journal/docs-temp/362-elkus.pdf

- English, Allan D. ed. *The Changing Face of War: Learning from History*. Kingston: The Royal Military College of Canada, 1998.
- Fitz-Gerald, Ann, and Don MacNamara. "Comprehensive Security Requires Comprehensive Structures How Comprehensive Can We Get?" Canadian Defence & Foreign Affairs Institute: Strategic Studies Working Group Papers. March 2012.
- Gorka, Sebastian. "The Age of Irregular Warfare: So What?" *Joint Force Quarterly*. (July 2010), 32-38.
- Greenwood, T.C., and T.X. Hammes. "War Planning for Wicked Problems: Where Joint Doctrine Fails." *Armed Forces Journal* 148, (December 2009). http://www.armedforcesjournal.com/war-planning-for-wicked-problems/
- Holmqvist-Jonsater, Caroline and Christopher Coker, eds. *The Character of War in the 21st Century*. New York: Routledge, 2010.
- Hooker, Richard D. Jr. ed. Maneuver Warfare: An Anthology. Novato: Presidio Press, 1993.
- Hooker, Richard D. Jr. "The Mythology Surrounding Maneuver Warfare" *Parameters: The US Army War College Quarterly.* (Spring 1993): 27-38.
- Johnson, David E., Karl P. Mueller and William Howard Taft, V. Conventional Coercion Across the Spectrum of Operations: The Utility of US Military Forces in the Emerging Security Environment. Santa Monica: The RAND Corporation, 2002.
- Leonhard, Robert R. *The Art of Maneuver: Maneuver-Warfare Theory and AirLand Battle.* Novato: Presidio Press, 1991.
- Leslie, Andrew, Peter Gizewski and Michael Rostek. "Developing a Comprehensive Approach to Canadian Forces Operations." *Canadian Military Journal* 9, no. 1, 11-20.
- McNamara, Robert S. *In Retrospect, The Tragedy and Lessons of Vietnam*. New York: Times Books, 1995.
- Melillo, Michael R. "Outfitting a Big War Military with Small War Capabilities." *Parameters: The US Army War College Quarterly.* (Autumn 2006): 22-34.
- Mendal, William M. and Floyd T. Banks. "Campaign Planning: Getting it Straight" *Parameters: The US Army War College Quarterly.* (September 1988): 43-53.
- Ouellet, Eric and Pierre C. Pahlavi. "Institutional Analysis and Irregular Warfare: A Case Study of the French Army in Algeria 1954–1960" *The Journal of Strategic Studies* 34, no. 6 (December 2011): 799–824.

- Owen, William F. "The Manoeuvre Warfare Fraud." *Small Wars Journal*, September 2008. Last accessed 18 April 2015. http://smallwarsjournal.com/blog/journal/docs-temp/95-owen.pdf?q=mag/docs-temp/95-owen.pdf
- Palmer, Dave R. *Summons of the Trumpet: U.S. Vietnam in Perspective*. Novato: Presidio Press, 1978.
- Rittel, Horst W. and Melvin M. Webber. "Dilemmas in a General Theory of Planning" *Policy Sciences* 4, (1973): 155-169.
- Rosteck, Michael and Peter Gizewski, eds. *Security Operations in the 21<sup>st</sup> Century: Canadian Perspectives on the Comprehensive Approach*. Kingston and Montreal: McGill-Queen's University Press, 2011.
- Scales, Robert H. *Certain Victory: The US Army in the Gulf War*. Washington, DC: Potomac, 2006 (originally published in 1994).
- Scales, Robert H. *Future Warfare: Anthology*. Revised edition. Carlisle Barracks, PA: U.S. Army War College Strategic Studies Institute, 2001.
- Simpkin, Richard E. *Race to the Swift: Thoughts on 21<sup>st</sup> Century Warfare*. London: Pavillion, 1998.
- Smith, Rupert. *The Utility of Force: The Art of War in the Modern World.* London: Allen Lane, 2005.
- Sunderland, Riley. *Organizing Counterinsurgency in Malaya*, 1947-1960. Santa Monica: The RAND Corporation, 1964.
- Taw, Jennifer Morrison. *Operations Other Than War: Implications for the U.S. Army.* Santa Monica: The RAND Corporation, 1997.
- Unterganschnigg, Kimberly. "Canada's Whole of Government Mission in Afghanistan Lessons Learned." *Canadian Military Journal* 13, no. 2. (Spring 2013): 8-16.
- Vacca, Alexander W., and Mark Davidson. "The Regularity of Irregular Warfare." *Parameters: U.S. Army War College* 41, no. 1 (Mar 2011): 18-28.
- Van Riper, Paul and Robert H. Scales, Jr., "Preparing for War in the 21st Century." *Strategic Review*, (Summer 1997): 14-20.
- Von Clausewitz, Carl. *On War*. edited and translated by Michael Howard and Peter Paret Princeton: Princeton University Press, 1975.

- Walters, Eric. "Fraud or Fuzziness? Dissecting William Owen's Critique of Maneuver Warfare." *Small Wars Journal Blog*, Last modified 15 September 2008 http://smallwarsjournal.com/blog/fraud-or-fuzziness-dissecting-william-owens-critique-of-maneuver-warfare
- Wilkie, Robert. "Hybrid Warfare: Something Old, Not Something New." *Air and Space Power Journal* 23, no. 4 (Winter 2009): 13-17.
- Willoughby, Charles Andrew. *Maneuver in War*. Honolulu: University Press of the Pacific, 2005.