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## **CLAUSEWITZ'S CONCEPT OF CENTRE OF GRAVITY IS IT RELEVANT IN COUNTERINSURGENCY OPERATIONS?**

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CANADIAN FORCES COLLEGE – COLLÈGE DES FORCES CANADIENNES  
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MASTER OF DEFENCE STUDIES – MAÎTRISE EN ÉTUDES DE LA DÉFENSE

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IS IT RELEVANT IN COUNTERINSURGENCY OPERATIONS?**

By Major H.J.S. Mandaher

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## ABSTRACT

The purpose of this paper is to argue that the concept of centre of gravity (CoG), as presented by Carl von Clausewitz in his seminal work *On War*, is not relevant in modern counterinsurgency (COIN) operations. The wars for which Clausewitz's work was written are not the wars of the 21<sup>st</sup> century. Where in the 19<sup>th</sup> century, wars between nation states were common, in the 21<sup>st</sup> century conflicts more often involve non-state entities, including insurgents and terrorists. Historical examples, such as US operations in Viet Nam and more recently in Afghanistan, highlight the complexities of dealing with insurgents that cannot be identified, have no identifiable (or attackable) support base and who will not fight conventional forces head on.

Joint and service doctrine has used the work of Clausewitz as the cornerstone of modern theory and planning. Central to that is the concept of CoG, which is dogmatically pursued, even in situations where Clausewitz himself stated it was not applicable. For conventional operations, friendly and enemy centres of gravity provide planners and commanders the means to focus efforts and resources and allow for efficient execution of operations. However, in COIN, the definitive checklist of solutions desired cannot be produced through the formulaic application of Clausewitzian concepts.

This paper examines the concept of CoG as it is used in COIN operations. Based on the current doctrine and contemporary academic thought on the application of CoG, this paper shows that the concept is not relevant in COIN. Finally, this paper offers that the Operational Design for COIN operations needs to be revised.

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H.J.S. Mandaher  
Major  
PPCLI  
18 August 2014

*The COIN doctrine that does exist consists of musings from amateurs, contractors, plagiarized journal articles, etc. It is not professional and relevant because it does not reflect the studied body of best practice – the concepts it promotes, in fact, contribute to needless American casualties. COIN has become such a restrictive dogma that it cannot be questioned; any professional discussion about its strengths and weaknesses is discouraged. It has reached such a crisis that those who employ other Army doctrinal concepts do so at their own professional peril because they will be subject to censure for not adhering to COIN. This has created a dysfunctional and toxic leadership environment throughout our Army which has resulted in poor organization, unrealistic training, and indecisive battlefield performance.*

*Colonel H.D. Tunnell, Memorandum to the US Secretary of the Army, 20 August 2010*

## INTRODUCTION

The epigraph from Colonel Tunnell illustrates the frustration our leaders and planners are experiencing with our current COIN doctrine. The author was a staff officer in the Task Force Kandahar J5 Cell (Plans) in 2009. Similar to the frustrations voiced by Colonel Tunnell, the author experienced difficulty in understanding the rationale behind some of the practices in operational design in the name of doctrine. Although it made sense that a standard set of tools was necessary to develop a plan that was understood at various levels of command and amongst our allies, it was difficult to rationalize the deductions or the lack of deductions that the process produced. If a process does not produce useful deductions or lead to something actionable, then the utility of the process needs to be reconsidered.

The cornerstone of Western military doctrine is Carl von Clausewitz's body of work titled *On War*. One of Clausewitz's most enduring examinations is the model of conflict, which he calls the essence of war. The opponents in a conventional war are generally nation states. In nation states, Clausewitz identified what he calls the "wonderful trinity".<sup>1</sup> The three components of Clausewitz's trinity are the people of a nation, the military, and the Government. In a war

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<sup>1</sup> Carl von Clausewitz, *On War*, translated by Colonel J.J. Graham (New York, Skyhorse, 2013), 16.

between nation states, Clausewitz's trinity is evident, making the adaptation of his theories for modern campaign design in conventional warfare relevant and logical.

Central to Western doctrine is Clausewitz's concept of the Centre of Gravity (CoG), which is defined by the United States Joint Doctrine as "the source of power that provides moral or physical strength, freedom of action, or will to act"<sup>2</sup> (this paper will discuss the definition of CoG in more detail later). At the strategic level, Clausewitz identified the military of a nation as one of its centres of gravity. At the operational level, the military is the only force that can destroy the military of its opponent in order to make him comply with the will of the victor. As Clausewitz stated repeatedly in his work, at the operational level, the CoG is the fielded military force of a nation engaged in the war.

Yet, modern campaign design is asking staff officers to identify multiple centres of gravities at the operational level, leading to much debate and confusion as to what is the CoG and how best to apply it to campaign design. If accepted as a fact that the CoG at the operational level in conventional operations is the field force, then why is it necessary to ask the staff to define the CoG or, more importantly, multiple CoGs? It should be a given fact that the fielded force is the CoG in the doctrine for conventional operations.

In counterinsurgency operations, the definition of the CoG becomes less certain. If we insist on using Clausewitz's theories, we must reconcile the failure of his trinity model in the context of an insurgency. An insurgent does not have a readily identifiable "people," "army" or a "government". Insurgents have fighting forces, but as Clausewitz states, "it would certainly be pedantry to apply the term Army to each band of irregular troops acting independently in a remote province..."<sup>3</sup> As for the government? There is none in the traditional sense. Insurgents

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<sup>2</sup> US Joint Publication 3-0, *Joint Operations* (11 August 2011), G1-6.

<sup>3</sup> Carl von Clausewitz, *On War*, translated by Colonel J.J. Graham (New York, Skyhorse, 2013), 224.

may have influential leadership that keeps the movement alive, but there is no structured government that represents the people the insurgents are supposedly fighting for. It could be argued that the people that provide shelter to the insurgents are the “people” mentioned in Clausewitz’s trinity; however, that would be an assumption overlooking several factors such as intimidation, corruption, and lack of real time security, all of which may be forcing the population to openly show support to the insurgents where none exists.

The thesis of this paper is that Clausewitz’s 19<sup>th</sup> century concept of the CoG is not relevant in 21<sup>st</sup> century campaign design for counterinsurgency operations. It has already been noted by James Schneider and Lawrence Izzo that the analogy of CoG was taken too far by Clausewitz.<sup>4</sup> This is echoed by the *Canadian Forces Operational and Planning Process*, which states that “recent writings on the topic of CoG have suggested that Western militaries have taken Clausewitz’s concept of CoG too far.”<sup>5</sup>

Clausewitz was trying to avoid a formulaic following of his theories by deliberately using “...different wording in the book’s various sections to discuss the same basic ideas, in order to force the reader to think rather than merely to absorb a particular jargon or vocabulary.”<sup>6</sup> Against Clausewitz’s best efforts, one concept that seems to have taken on a singular focus in operational design is the CoG. The CoG is being sought by planning staffs from the tactical level and up. The pursuit of a CoG, and often multiple CoGs, has become dogmatic in campaign design. Where it is difficult and confusing to define the CoG for conventional operations, the concept becomes absurd when attempts are made to apply it for counterinsurgency operations.

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<sup>4</sup> James J. Schneider and Lawrence L. Izzo, “Clausewitz’s Elusive Center of Gravity”, US Army War College, September 1987, 49.

<sup>5</sup> Department of National Defence, B-GJ-005-500/FP-000 *The Canadian Forces Operational and Planning Process – Change 2* (Ottawa: DND Canada, 2008), 2-1.

<sup>6</sup> Word Index to Carl von Clausewitz’s *On War*. Last accessed 26 April 2014, <http://www.clausewitz.com/bibl/Wordndx.htm#T>.



This paper will begin with an examination of the CoG as presented by Clausewitz in *On War*. After reviewing the concept as used in Western military doctrines, the paper will examine current views of the CoG as presented by modern military theorists, including Dr. Strange, Colonel Iron, Colonel Warden, and Colonel Eikmeier. The discussion will then use US operations in Vietnam and Afghanistan to provide anecdotal evidence of success and failure of the concept of CoG under various circumstances. In the end the paper will demonstrate that Clausewitz's 19<sup>th</sup> century concept of the centre gravity is not relevant in 21<sup>st</sup> century campaign design for counterinsurgency operations.

## THEORY - THE CONCEPT OF CENTER OF GRAVITY (COG)

*“Military Students defining the concept of the center of gravity (COG) are like blind men describing an elephant. They know a definition exists, but they describe it according to their own experiences, and invariably someone will define COG as “the will of the people.”*

- Colonel Dale C. Eikmeier, U.S. Army<sup>7</sup>

### Clausewitz’s Centre of Gravity

Before we look at the modern interpretation of the CoG or its derivatives, we will discuss the original concept presented by Clausewitz himself. The concept of CoG originally defined by Clausewitz was an analogy based on “the nature and effect of the centre of gravity in mechanics”.<sup>8</sup> What was called mechanics in early 19<sup>th</sup> century, in modern terms is known as physics. Clausewitz drew parallels with physical objects and military forces on the Napoleonic battle field. Throughout *On War*, Clausewitz uses common physics terms such as mass, force, charge, and CoG. These parallels do a great job of explaining the concepts Clausewitz discovered through his examinations, but he did not mean for the concepts to be taken literally. There is evidence he may have attempted to prevent a dogmatic acceptance of his theory:

To deepen the difficulty, Clausewitz purposefully used different wording in the book’s various sections to discuss the same basic ideas, in order to force the reader to think rather than merely to absorb a particular jargon or vocabulary.<sup>9</sup>

The idea that Clausewitz used different wording to express the same idea is supported by the physics terminology used. Modern physics defines CoG as the single point on which “all of the weight [force due to gravity] can be considered concentrated”.<sup>10</sup> Further, in a body of

<sup>7</sup> Colonel Dale C. Eikmeier, “Center of Gravity Analysis”, *Military Review*, July-August 2004, 2

<sup>8</sup> Carl von Clausewitz, *On War*, translated by Colonel J.J. Graham (New York, Skyhorse, 2013), 462.

<sup>9</sup> Word Index to Carl von Clausewitz’s *On War*. Last accessed 26 April 2014, <http://www.clausewitz.com/bibl/Wordndx.htm#T>.

<sup>10</sup> Raymond A. Serway and Jerry S. Faughn, *College Physics*, Saunders College Publishing, 1985 ,83.

continuous distribution of mass, the CoG coincides with the centre of mass provided the force of gravity acting on the mass is the same at all points.<sup>11</sup>

It is important to note the coincidence of CoG and centre of mass. In Book III and IV, Clausewitz uses the term “mass” repeatedly when emphasizing the physical necessity for victory. Elsewhere he switches to CoG and centre of force. Since the terms “centre of mass”, “centre of gravity”, and “centre of force”, refer to the same point on an object or a body, they can be considered equal. In modern terminology, the term mass is often replaced with numerical “superiority”, term implying gaining an advantage over an adversary by having more soldiers or more equipment to dominate a situation.

Therefore, when he was using the various terminologies (“centre of mass”, “centre of gravity”, “centre of force” or “numerical superiority”), Clausewitz was talking about the same point. He was making the case for his main metaphor: the concept of CoG. In Book VI: Defence, Clausewitz states the similarities between the CoG as used in physics and bodies of troops in war:

As the centre of gravity is always situated where the greatest mass of matter is collected, and as a shock against the centre of gravity of a body always produces the greatest effect, and further, as the most effective blow is struck with the centre of gravity of the power used, so it is also in war....and these centres of gravity are situated where the greatest bodies of troops are assembled.<sup>12</sup>

Throughout his work, Clausewitz emphasizes the primacy of mass and force and central role of the CoG in defeating the enemy. In Book 1, On the Nature of War, he provides an analogy of two wrestlers, “each [striving] by physical force to compel the other to submit to his

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<sup>11</sup> Raymond S. Serway, *Physics for Scientists and Engineers, with Modern Physics, Second Edition*, CBS College Publishing, 1986, 180.

<sup>12</sup> Carl von Clausewitz, *On War*, translated by Colonel J.J. Graham (New York, Skyhorse, 2013), 462.

will: his first object is to throw his adversary, and thus to render him incapable of further resistance.”<sup>13</sup> The image of one wrestler throwing another with the classic hip throw is clear. A successful execution of the hip throw requires one to establish a proper position of his CoG with respect to the opponents before leverage can be applied to execute the throw. Not only does the wrestler making the throw has to throw his opponent off his balance (dislodge his CoG), but he has to protect his own from being knocked off balance as well.

Clausewitz used this analogy of two wrestlers to define war. He states, “war is nothing but a duel on an extensive scale.”<sup>14</sup> Like the wrestlers, each army tries to protect its CoG from enemy attack, while trying to attack the enemy’s CoG in order to “throw his adversary, and thus render him incapable of further resistance.”<sup>15</sup> As Clausewitz summarizes, “war therefore is an act of violence to compel our opponent to fulfill our will.”<sup>16</sup> The compulsory submission of the enemy to our will is the end state of war or, “...the ultimate *object* ...” and it can be attained only through violence, or “that is to say physical force [which] is therefore the means”.<sup>17</sup>

To attain the ultimate object, the means is physical force, which can only be applied by the military. In his chapter on elements of strategy, Clausewitz states that of the five “causes which condition the use of combat in strategy”, the physical class includes the “whole mass of the military force.”<sup>18</sup> Clausewitz goes on to stress the importance of superiority of numbers and the requirement to assemble superior forces at the right place at the right time. He calls the superiority in numbers a “fundamental idea, always to be aimed at before all and as far as

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<sup>13</sup> Carl von Clausewitz, *On War*, translated by Colonel J.J. Graham (New York, Skyhorse, 2013), 1.

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

<sup>15</sup> *Ibid.*

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

<sup>17</sup> *Ibid.*

<sup>18</sup> Carl von Clausewitz, *On War*, translated by Colonel J.J. Graham (New York, Skyhorse, 2013), 120.

possible.”<sup>19</sup> If the military of a nation state is the only component that can use physical force, then to neutralize the enemy, its military must be destroyed. This makes the military the CoG of a nation.

According to Clausewitz, at the strategic level, a nation’s means of exerting force, the military, is one of the centres of gravity. At the operational level, the army or a concentration of military mass is *the* CoG. When two opponents are at war, they must bring their centres of mass to bear on each other if they are to impose their will on their opponent to obtain their respective objectives. The battle is the most powerful and effective means of attaining the objective in war. What Strange and Iron summarize as “a collision of centers”<sup>20</sup>, Clausewitz phrases as:

A great battle upon the theatre of war is the blow of the centre of force against the centre of force; the more forces can be collected in the one or the other, the surer and greater will be the effect.<sup>21</sup>

The emphasis on the military force, numerical superiority, centre of mass and centre of force all indicate means to understand and define 19<sup>th</sup> century warfare.

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<sup>19</sup> *Ibid.*, 137.

<sup>20</sup> Joseph L. Strange and Richard Iron, “Center of Gravity, What Clausewitz Really Meant”, JFQ, issue thirty-five, 21.

<sup>21</sup> Carl von Clausewitz, *On War*, 465.

The following gives an idea of what war looked like to Clausewitz:

What do we do now usually in a great battle? We place ourselves quietly in great masses arranged contiguous to and behind one another. We deploy relatively only a small portion of the whole, and let it wring itself out in a fire-combat which lasts for several hours, only interrupted now and again, and removed hither and thither by separate small shocks from charges with the bayonet and cavalry attacks. When this line has gradually exhausted part of its warlike ardour in this manner and there remains nothing more than the cinders, it is withdrawn and replaced by another.<sup>22</sup>

Now, in the combat all the action is directed to the destruction of the enemy, or rather of his fighting powers, for this lies in the conception of combat. The destruction of the enemy's fighting power is, therefore, always the means to attain the object of the combat.<sup>23</sup>

This is up close, nasty, bloody fighting in an all or nothing war of attrition, involving the “utmost use of force”. Modern conventional warfare no longer uses troops amassed in close quarter squares; however, the deployment of forces in a modern conventional war still call for overlapping lines of observation and fires. Concentration of forces is still relevant at the right place and right time. So, in conventional operations, the theory espoused by Clausewitz is still valid. The concept of CoG is relevant in conventional operations today as it was in the 19<sup>th</sup> century observations made by Clausewitz.

Clausewitz’s concept of CoG is an analogy used to best describe his observations in 19<sup>th</sup> century warfare. From the reasoning above, the examples used by Clausewitz, and his emphasis on the battle as the means to attain the object, we can conclude that *the* operational level CoG of a nation is its fielded military power. Therefore, to search for other CoGs at the operational and tactical level is not based on the Clausewitzian concept of CoG.

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<sup>22</sup> Carl von Clausewitz, *On War*, 165.

<sup>23</sup> *Ibid.*, 24.

## Centre of Gravity in Military Publications and Doctrine

### General

The concept of CoG has become a cornerstone of operational art. Its prominence in Canadian Forces publications has made the term CoG part of the military staff vernacular. Despite the importance of CoG in operational design, it remains a poorly defined and explained concept.<sup>24</sup> Given most NATO allies share the general construct of their doctrine, Canada is facing similar issues when it comes to the definition and application of the concept of CoG. In some cases in Western militaries, the approach to CoG varies within the same military, component to component. If the concept is neither clearly definable nor well understood, any work done in attempts to identify the CoG of the enemy is a waste of effort and offers no utility in campaign design. Although campaign design makes CoG central to its process, there is too much emphasis placed on identifying the CoG without due consideration for the type of operations being considered (conventional or otherwise) and at what level (tactical, operational or strategic).

Military theorists have identified the issues with understanding Clausewitz's concept of CoG and its application in modern doctrine for campaign design. Military theorists of note include Joseph L. Strange, Col Richard Iron, Lieutenant-Colonel Antulio J. Echevarrio II, and Colonel John Warden, each providing views on the utility and application of the concept to modern campaign design. They all agree on the utility of the fundamental construct for campaign design and operational planning. However, when their revisions of the concept are considered for application in COIN operations, limitations are obvious. In some cases, when the CoG of insurgents are identified, they are either of little utility or apply at the strategic level vice the operational, taking the utility out of the hands of the operational campaign designers.

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<sup>24</sup> Dale C. Eikmeier, "Center of Gravity", *Military Review*, July-August 2004, 2.

## Definitions of Centre of Gravity

US Joint Doctrine defines the CoG as “the source of power that provides moral or physical strength, freedom of action, or will to act.”<sup>25</sup> This is similar to the Canadian definition, which describes the CoG as “characteristics, capabilities or localities from which a nation, an alliance, a military force or other grouping derives its freedom of action, physical strength or will to fight.”<sup>26</sup> According to *Land Operations*, a more accurate definition for a CoG is provided by Strange and Iron: “a dynamic and powerful physical or moral agent of action or influence that *possess* certain characteristics and capabilities, and *benefits from* a given location or terrain.”<sup>27</sup>

As the similarities attest, there seems to be a lot of group think going on between the doctrine developers of NATO members. It is understandable that allied nations need to be able to communicate with each other, especially during operations, efficiently and reliably. The terminologies and methodologies should be transferable from an ally to another without loss of meaning. But, the fact that NATO allies are all falling in line with the doctrine established by leader states, should be a concern. For this project, since most of the NATO allies will follow a common doctrine or develop their independent doctrines through common understandings, this paper will focus on the Canadian doctrine from this point forward to streamline the discussion.

According to Canadian Military Doctrine, a campaign plan should identify “...the enemy’s operational centres of gravity.”<sup>28</sup> As stated in other Canadian publications, Canadian doctrine is directing its staffs to look for multiple centres of gravity at the operational level. *Land Operations* elaborates on the concept to include CoGs “at each level of command, and [that] an

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<sup>25</sup> US Joint Publication 3-0, Joint Operations, 11 August 2011, GI-6.

<sup>26</sup> B-GJ-005-000/FP-001, Canadian Forces Joint Publication, Canadian Military Doctrine, September 2011, GL-1.

<sup>27</sup> Joseph L. Strange and Richard Iron, “Center of Gravity, What Clausewitz Really Meant”, JFQ, issue thirty-five, 15.

<sup>28</sup> B-GJ-005-000/FP-001, Canadian Forces Joint Publication, Canadian Military Doctrine, September 2011, 6-4.



adversary may have more than a single CoG. A CoG will exist wherever forces are most concentrated and where there is significant cohesion.”<sup>29</sup>

By first stating the concept is based on the theory of Clausewitz then adding multiple centres of gravity at the operational and tactical level, is causing confusion. Clausewitz was clear that at the operational level, there is one CoG, the fielded military force. Regularly in Canadian publications, Clausewitz is quoted and the modern doctrinal concept of CoG defined; however, there seems to be a hesitation to commit to one approach to the concept. It’s as if we are afraid to venture out on our own into the field of military doctrine, without letting go of Clausewitz. Canadian publications add caveats or foot notes highlighting the ongoing debate over the concept.

The Canadian Forces Aerospace Doctrine states that to achieve strategic effect, aerospace capabilities need to “threaten, disrupt or destroy an adversary’s strategic centre of gravity.”<sup>30</sup> As a footnote, the doctrine mentions the source of the concept of CoG and states “Even today, there remains some debate over how Clausewitz’s concept should be translated and interpreted.”<sup>31</sup> The Aerospace Doctrine does not go on to elaborate on the concept or explain how a CoG is identified.

As with the Aerospace Doctrine, the OPP publication uses the term CoG, but with cautionary statements included as if to warn the reader to think carefully before using it. After providing the standard definition based on the Canadian Doctrine, the OPP publication states:

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<sup>29</sup> Department of National Defence, B-GL-300-001/FP-001, *Land Operations* (Ottawa: DND Canada, 2008), 6-9.

<sup>30</sup> Department of National Defence, B-GA-400-000/FP-000, *Canadian Forces Aerospace Doctrine* (Ottawa: DND Canada, December 2010), 41.

<sup>31</sup> B-GA-400-000/FP-000, *Canadian Forces Aerospace Doctrine*, December 2010, 41.

Recent writings on the topic of centre of gravity have suggested that Western militaries have taken Clausewitz's concept of the Centre of Gravity too far. What was intended as an abstract analytical concept was never intended to be the singular focus of campaigning. As such, it has been suggested that the unifying focus of any campaign should be the evolving end state, goals and objectives and if a clear, useful centre of gravity is present then it should be included in the operational art.<sup>32</sup>

It recognizes that the original abstract concept was not meant to be used as a singular focus for campaign design. Yet throughout Canadian doctrine, the concept of CoG is prevalent. The suggestion that the focus must remain on the end state helps planning staffs considerably. The end state should be clearly defined through strategic guidance, but is seldom provided by the government. Without a clearly defined end state, the model of CoG to end state loses meaning (this model is discussed further in the section on campaign design). Without an end state, the efforts to define and attack the CoG are open-ended. So, why leave an option for staff to still look for a CoG? How can a doctrine have the answer clearly articulated yet continue to cause confusion by carrying unnecessary baggage?

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<sup>32</sup> Department of National Defence, B-GJ-005-500/FP-000 *The Canadian Forces Operational and Planning Process – Change 2* (Ottawa: DND Canada, 2008), 2-1

## Campaign Design and Centre of Gravity

Canadian Forces Joint Publication 5.0, *Operational Planning Process (CF OPP)*, lists operational concepts that are fundamental to the design and conduct of campaigns for operations from peacetime to warfighting. Given the concept of CoG is central to this paper, it is important to note the exact wording from the CF OPP publication, as it reveals even more expansion of the concept:

Campaign design depends on an ongoing analysis of one's strengths and weaknesses, relative to the task at hand as compared to the adversary. Consideration of how to expose and to neutralize the appropriate opposition Centre of Gravity while protecting one's own is a variation of strength and weakness analysis. It can also be useful to relate the center of gravity to its critical capabilities, which are then related to critical requirements and then to critical vulnerabilities. These vulnerabilities need to be protected if they are friendly or attacked if they belong to the enemy. This detailed analysis allows for more intangible centres of gravity to be related to more tangible elements. Centres of Gravity can be considered at the strategic, operational and tactical levels of conflict.<sup>33</sup>

This definition incorporates intangible centres of gravity down to the tactical levels of conflict. The whole idea behind CoG was to identify a critical target that can be attacked in force to defeat the enemy. How is an intangible CoG attacked to bring an enemy to heel? In addition, the quotation above mentions the concepts from Dr Strange.<sup>34</sup> To see how this fits into campaign design, operational concepts relevant to this paper are summarized as follows with the definitions paraphrased from CFJP 5.0:

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<sup>33</sup> Department of National Defence, B-GJ-005-500/FP-000 *The Canadian Forces Operational and Planning Process – Change 2* (Ottawa: DND Canada, 2008), 2-1

<sup>34</sup> In their work "Understanding Centers of Gravity and Critical Vulnerabilities, Part 2", Dr Joe Strange and Col Richard Iron outline the construct of Centers of gravity, Critical Capabilities, Critical Requirements, and Critical Vulnerabilities. An analysis through this construct allows planners to identify decisive and shaping operations.

End State. The end state is defined by the government and may be changed over time as new developments may require.

Objectives. An objective is a “clearly defined and attainable goal for a military operation”.<sup>35</sup> A series of military objectives combined help defeat the enemy centre of gravity and achieve the desired end state.

Effects. The results of one or more activities that contribute to the attainment of one or more objectives.

Centre of Gravity. As defined above.

Decisive Points. Decisive points are critical events or intermediate objectives that create paths or lines of operation to the end state.

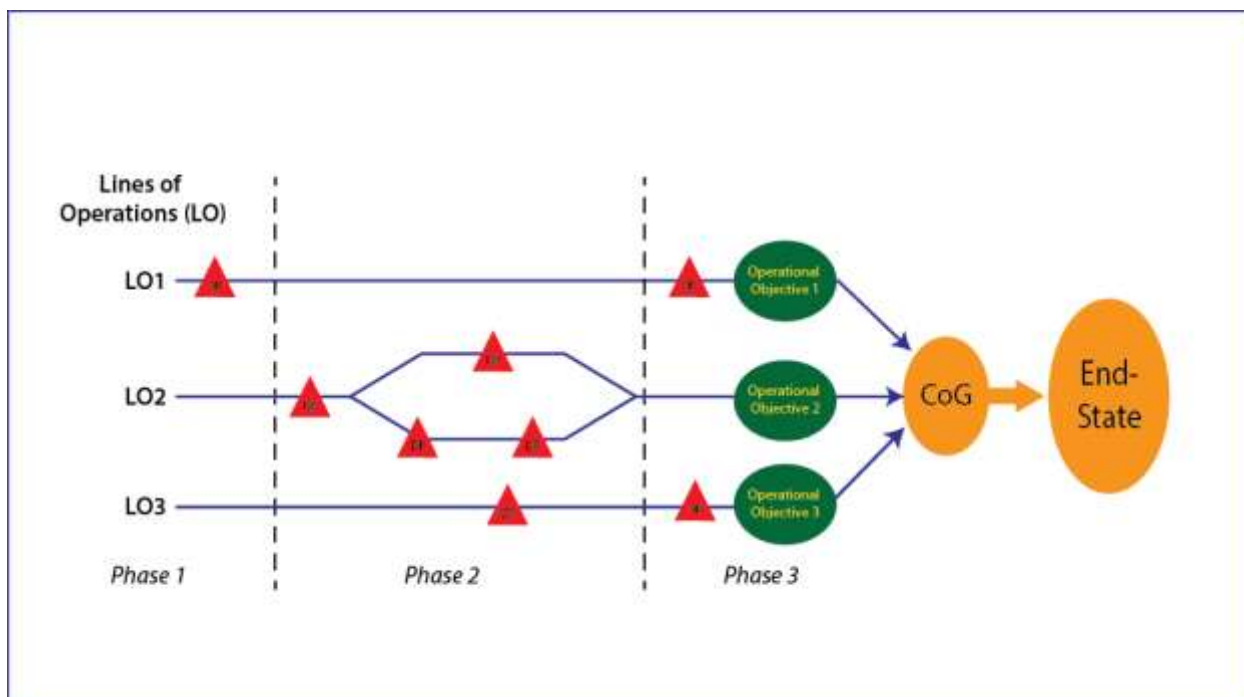
Lines of Operation. Lines of Operation “produce a critical path in time and space along the path to the end state and ensure that events are tackled in a logical progression.”<sup>36</sup>

The above concepts are shown in Figure 1, as commonly taught for operational design at the Canadian Forces College and presented in CF OPP.

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<sup>35</sup> NATP AAP-6, as quoted by Department of National Defence, B-GJ-005-500/FP-000 *The Canadian Forces Operational and Planning Process – Change 2* (Ottawa: DND Canada, 2008), 2-1.

<sup>36</sup> Department of National Defence, B-GJ-005-500/FP-000 *The Canadian Forces Operational and Planning Process – Change 2* (Ottawa: DND Canada, 2008), 2-2



**Figure 1 – Operational Design.** The concept of campaign design can be shown graphically to help staff develop operational plans. The lines of operation allow the attainment of operational objectives, each of which helps attack the CoG in conventional operations. The defeat of the CoG will lead to the End State.

In Figure 1, the lines of operation represent the friendly force actions required, or critical paths as the campaign design publication states, to achieve the operational objectives. Once the operational objectives are attained, the CoG will be defeated, leading to the end state. Another way of looking at this graphic is to consider the key obstacle between friendly force efforts and their desired end state. The key obstacle is the CoG. If the CoG is not defeated, the end state cannot be reached.

It is easy to see the attraction to the concept of centre gravity for campaign design. There appears to be a systemic approach to defining the operational concepts that, through the diligent effort of a joint staff, can produce a campaign design with lines of operations, decisive points,

and operational objectives to reach the end state. The weakness in this doctrine is the central concept of CoG.

With confusing definitions, attempts to apply the concept at all levels of operations, to determine both tangible and intangible centres of gravity, the concept has become absurd in its modern application. The problem is further compounded if the end state is not articulated by the government. As difficult as it is to utilize the concept of CoG in the operational design of conventional operations, it becomes even more complicated and untenable when attempting to use it in counterinsurgency operations.

#### Counterinsurgency Operations and Centre of Gravity

When fighting an insurgency, a force will have limited indicators as to how the insurgency is structured, how to identify the insurgents and, most importantly for campaign designers, how to define the key operational concepts that would allow the defeat of the insurgency. In trying to define the CoG in counterinsurgency operations, tangible centres of gravity are not obvious. *Land Operations* offers that, for COIN, moral centres of gravity have to be sought.

A moral CoG in many campaigns may be the will of the majority of a population, or the will of a particular segment of the population. Such will be the case in a COIN campaign. The key battle between the insurgent and the campaigning forces will be to win the enduring support of the populace.<sup>37</sup>

*Land Operations* goes on to state that a formulaic approach to defining physical or moral centres of gravity will not yield anything useful. The publication makes it an issue of “careful

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<sup>37</sup> Department of National Defence, B-GL-300-001/FP-001, *Land Operations* (Ottawa: DND Canada, 2008), 6-11.

assessment and the art of command to accurately assess physical and moral centres of gravity.”<sup>38</sup> For counter-insurgency operations, the support of the population is identified as a key strategic CoG, but no indication is given as to what would constitute a CoG at the operational or tactical level.

In further explanations, *Land Operations* lists people that create a “physical or moral/psychological effect” as centres of gravity. As moral centres of gravity, the people control or influence the physical centres of gravity. By this definition, a political leader can be a CoG; however, if the political leader is attacked (killed) as per Clausewitz’s original concept, can the end state be attained?

*Land Operations* gives “Saddam Hussein in 1990-91 and Winston Churchill in 1940-41”<sup>39</sup> as examples of two people that were considered moral centres of gravity. In the first Gulf War, Saddam Hussein’s death could have achieved the end state by removing the strongman from power, provided the end state was the negotiated removal of Iraqi forces from Kuwait. However, it is doubtful whether the death of Churchill would have meant the end of the Allies’ efforts against the Axis. In recent history, we have seen the little effect that is achieved through the targeting of enemy leaders.

In the second Gulf War, allied forces eventually captured Saddam and hung him after he was found guilty through due process. That did not bring peace to Iraq. The insurgency continued to dominate until the US pulled its troops out and the country is still in chaos. As of 4 August 2014, ISIS, the Islamic State in Iraq and Syria, is dominating the news with its latest

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<sup>38</sup> Department of National Defence, B-GL-300-001/FP-001, *Land Operations* (Ottawa: DND Canada, 2008), 6-11.

<sup>39</sup> *Ibid.*, 6-12.

victories in taking government infrastructure and facilities. Clearly, Saddam Hussein was not the CoG the defeat of which would have led to the end state, unless the end state was to destabilize Iraq.

When the concept of CoG fails to provide definitive results, we tend to dig deeper and search longer and define questionable CoGs to placate the military mind's aversion to ambiguity. In its desire to reduce ambiguity the military tries to find patterns and define CoGs where none exist. As John Nagle puts it, "Soldiers – and most statesmen – are uncomfortable with ambiguity, with Clausewitzian "it depends" answers. They like checklists of simple principles that always apply...."<sup>40</sup> When the checklists or principles do not apply, we force them onto the situation anyway, whether it makes sense or not.

The identification of multiple strategic centres of gravities is supported by Clausewitz's original concept, but at the strategic level. At the operational level there is only one CoG and that is the military power of a nation. If the doctrine insists on coaxing staff to identify the centres of gravity at all levels of operations, then more explanation and means of analysis is required. Since adding complexity to a concept that was initially very simple did not make it more applicable to modern doctrine, perhaps the application of the 19<sup>th</sup> century concept should be reconsidered. If left completely to the generalities of "careful assessment and the art of command", the campaign designer might as well disregard the identification of the CoG and focus on the end state. He will find it less confusing and more useful in campaign design.

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<sup>40</sup> John A. Nagl, *Learning to Eat Soup with a Knife* (Westport, Conn.: Praeger, 2002), 18.



## Military Theorists – Views on Centre Of Gravity

Col Dale C. Eikmeier

Eikmeier identifies only two strategic centres of gravity: military power and economic power.<sup>41</sup> The other centres of gravity identified at the strategic level by Clausewitz are discounted by Eikmeier. Diplomacy is a decision process on whether to employ military power or economic levers. All other forms of strategic influences a nation can bring to bear on an enemy are negligible unless an action can be taken through the military or economic power to attack the enemy's capability to continue to wage war. In limited war, the only strategic CoG, according to Eikmeier, is "almost always a military/security capability."<sup>42</sup>

An operational CoG is something that protects the strategic CoG. Eikmeier supports Clausewitz's concept. At the operational level, the CoG is "almost always... a military/security capability."<sup>43</sup> Instead of just saying "the military" is the CoG, the identification of a specific military organization or unit would provide more utility to planning staffs. Among a list of things that can be called centres of gravity, Eikmeier includes "unconventional forces, including terrorists."<sup>44</sup> This will be revisited later in the discussion on relevance of CoG in counterinsurgency operations.

Some things Eikmeier lists as not centres of gravity include "the will of the people, leadership/key personalities, lines of communications, [and] the media."<sup>45</sup> As he explains, none of these things can "do" something to attack a CoG. They may be requirements or potential requirements, but without a military force to take action against the enemy's CoG, the ultimate

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<sup>41</sup> Colonel Dale C. Eikmeier, "Center of Gravity Analysis", *Military Review*, July-August 2004, 4.

<sup>42</sup> *Ibid.*

<sup>43</sup> *Ibid.*

<sup>44</sup> *Ibid.*, 5.

<sup>45</sup> *Ibid.*

end state cannot be achieved. This is contrary to the CF Doctrine that identifies personalities and leaders as possible CoG.<sup>46</sup> As well Dr Strange and Colonel Iron disagree with Eikmeier on what can or cannot be a CoG.

#### Dr. Strange and Col Iron

In 2003, Dr Strange and Col Iron wrote a two-part paper entitled Understanding Centers of Gravity and Critical Vulnerabilities. They conclude in Part 1 that Clausewitz intended the CoG “to be a strength, either moral or physical, and a dynamic and powerful agent in its own right.”<sup>47</sup> In addition, they disagreed with the Joint and NATO doctrines that considered a CoG to be a “source of strength”. In Part 2, they provide an analytical model that could be used by staffs for strategic and operational planning. The Strange and Iron model includes the CoG, critical capabilities, critical requirements, and critical vulnerabilities. They define these terms as follows:

Centers of Gravity (CG) are physical or moral entities that are the primary components of physical or moral strength, power and resistance. They don’t just contribute to strength; they ARE the strength. They offer resistance. They strike effective (or heavy) physical or moral blows. At the strategic level, they are usually leaders and populations determined to prevail. At operational and tactical levels they are almost invariably specific military forces.<sup>48</sup>

Critical Capabilities (CC) are the capabilities for a given scenario that allow an action to take place. For example, a capability to “destroy something, or seize an objective, or prevent you from achieving a mission.”<sup>49</sup>

Critical Requirements (CR) are “conditions, resources and means that are essential for a center of gravity to achieve its critical capability.”<sup>50</sup> Or requirements without which a center of gravity cannot take action. For example,

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<sup>46</sup> Department of National Defence, B-GL-300-001/FP-001, *Land Operations* (Ottawa: DND Canada, 2008), 6-12.

<sup>47</sup> Dr Joe Strange and Col Richard Iron, “Understanding Centers of Gravity and Critical Vulnerabilities, Part 2”, 1.

<sup>48</sup> *Ibid.*, 6.

<sup>49</sup> *Ibid.*

<sup>50</sup> *Ibid.*

the centre of gravity might be your armour division. Therefore, for the armour division, the CR could be fuel. If fuel was not available, then the armour cannot function as a centre of gravity. So the fuel is a CR. Strange and Iron gave other examples, ranging from political leaders requiring popular support to the success of one mission upon which the next mission may depend.

Critical Vulnerabilities (CV) “are those critical requirements, or components thereof, that are deficient, or vulnerable to neutralization or defeat in a way that will contribute to a center of gravity failing to achieve its critical capability.”<sup>51</sup> CV are susceptible to attack and may include key leadership, the loss of which may end the conflict, under certain circumstances. Attacks on CV can have an accumulative effect, even if the defeat of individual CV is not sufficient to neutralize a CoG.

The model above is used to determine the decisive opportunities in defeating or neutralizing the enemy centre of gravity. From this analysis comes the identification of CC, CR, and CV for both friendly and enemy forces. In their paper, Strange and Iron provided multiple examples from World War II to show how the model worked. The examples used were for conventional operations.

One thing they weren't clear on was whether the model is relevant for COIN. As Strange and Iron already pointed out above, “At operational and tactical levels [the CoGs] are almost invariably specific military forces”.<sup>52</sup> The force faced in a COIN environment is the insurgent fighters or other elements that add to the insurgency, such as terrorists. Given the very dispersed and disconnected nature of insurgents, according to Clausewitz, the CoG does not exist in an insurgency. If the CoG does not exist, is the model presented by Strange and Iron still applicable?

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<sup>51</sup> *Ibid.*,7.

<sup>52</sup> *Ibid.*,6.

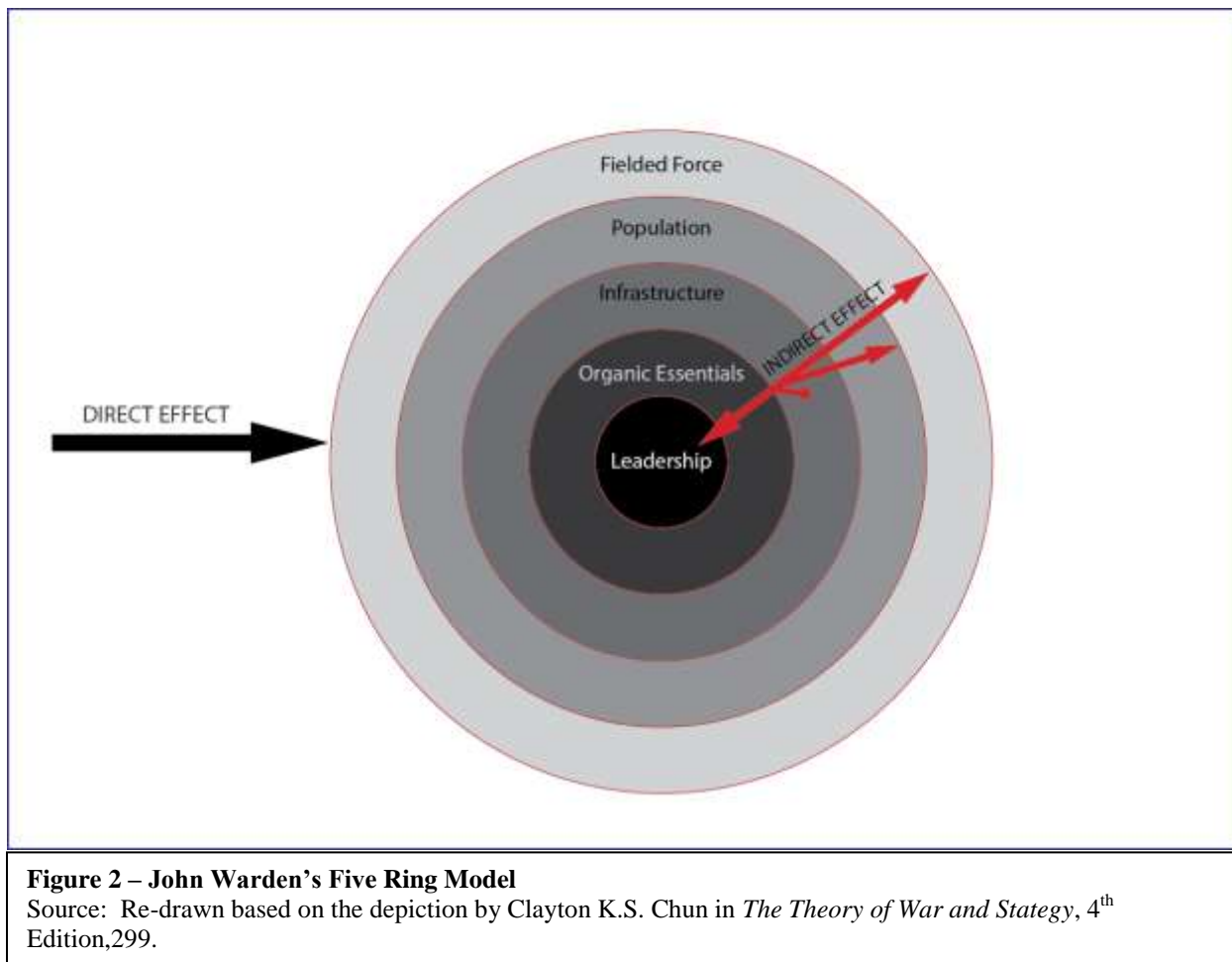
Colonel J.A. Warden

In Colonel John Warden's model, there are five general CoGs that could be used to defeat the enemy. These CoG are the leadership, organic essentials, infrastructure, population and fielded forces. Warden looked upon the five CoGs as connected parts of a biological entity (see figure 2). In Warden's model, the leadership is the "brains". The organic essentials are needed for the nation to survive, like the body needs food. Organic essentials include energy, water, and food for the nation. The next ring, infrastructure, is like the bones and muscles in a body. Infrastructure required to allow a nation to function includes road, railroads, bridges, airports, and power grids. The fourth ring is the population, without the support of which the leadership cannot function. The fifth ring is the fielded force, the segment with the capability to defend a nation or attack on its behalf.

Warden's idea is to avoid a head on impact with the enemy's fighting element and instead to attack the biological system from the inside first and allow the shock to the biological system take the fight out of the enemy. For example, an air strike against the leadership and the infrastructure could pressure the other parts of the biological entity to feel "pain" and reconsider the war effort. Warden's system was effectively used against a nation state like Iraq during the First Gulf War. How will it fair in COIN?

Warden's system of rings fails to account for the CoG in an insurgency. There are leaders running the insurgency, but they are well concealed and mobile, making them a difficult target at best. The organic essentials apply to a nation, but not for an insurgency. Any attacks on electric power or food stores would do more to turn people against the force conducting COIN operations than harm will be done to the insurgents. Similarly, the infrastructure and the population cannot be targeted because of insurgents amongst the population. The fifth ring,

fielded military, as has been the case in Viet Nam, Iraq, and Afghanistan, cannot be readily identified. If we cannot identify the enemy, we can't attack it. Therefore, in a COIN environment, the Warden Five Ring Model fails to provide utility against insurgents.



## **RELEVANCE OF CoG IN COUNTERINSURGENCY OPERATIONS**

Operational campaigns, including COIN, are designed and executed within the military component of the wonderful trinity, with guidance provided by the government through strategic direction. Modern campaign design has adapted Clausewitz's concept of CoG as a keystone concept, to be used in the preparation of all operational and tactical plans. The concept of CoG and its application in modern warfare continues to be a subject of debate and interpretation. This ongoing debate indicates fundamental flaws in the application of the concept proposed by Clausewitz in the 19<sup>th</sup> century.

Fundamentally, Clausewitz's model of conflict, written in the 19<sup>th</sup> century, still has utility for the development of doctrine and operational design for modern conventional warfare. For a conflict between nation states, the trinity of both sides is readily definable. For example, in the first Gulf War, the people, military, and government of Iraq were obvious. However, in unconventional warfare, such as an insurgency, the trinity becomes difficult to define. For instance, the people, military, and Government of Afghanistan are the allies of the Western Coalition Forces. How can the insurgency in Afghanistan be viewed through the concept of the Clausewitz trinity?

Who are the "people" of the belligerents? In Afghanistan, insurgents captured or killed included various nationalities, including Afghans, Pakistanis, and citizens of western nations. What constitutes the "military" of the insurgency? How is the "military" identified and where is it concentrated? A farmer during the day may transport weapons during the night for extra money; he is neither necessarily for nor against the insurgents, just someone for hire for either side, if the price is right.

Finally, what is the “government” of the insurgents? In the Afghanistan insurgency, is it the Taliban Mullahs running religious schools in Pakistan? Is it the Pakistan government, operating through its intelligence services? With the trinity of an insurgency becoming difficult, if not impossible, to define, the Clausewitzian fundamentals start to become less certain. If we cannot readily define the trinity, should we continue to insist on evoking Clausewitz during the operational and tactical planning of COIN operations?

Clausewitz based his deductions on his observations of the Napoleonic Wars. A lot has changed in the world over the past two centuries, most importantly the Revolution in Military Affairs<sup>53</sup> and globalization that has led to the exchange of goods and ideas amongst nations on an unprecedented scale. With the new global economy, nation states are less likely to engage in all-out war without exhausting other means of discourse through international organizations such as the United Nations. A greater and persistent threat of conflict is from non-state organizations or failed states.

The US National Security Strategy names Al-Qa’ida as a specific threat to the security of the United States. The Quadrennial Defense Review Report of 2010 identifies the need to “retain the capability to conduct large-scale counterinsurgency, stability, and counterterrorism operations in a wide range of environments.”<sup>54</sup> As such, the Clausewitz fundamentals, though pertinent for conventional operations, need to be reconsidered in their application at the operational and tactical levels for conflicts involving non-state actors.

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<sup>53</sup> Revolution in Military Affairs (RMA) is defined “as a major change in the nature of warfare brought about by advances in military doctrine and organizational concepts, fundamentally alter the character and conduct of military operations.” As presented by Dr Elinor Sloan, “Canada and the Revolution in Military Affairs: Current Response and Future Opportunities”, *Canadian Forces Journal*, Issue #3, 18 September 2000, 7.

<sup>54</sup> Dr Joe Strange and Col Richard Iron, “Understanding Centers of Gravity and Critical Vulnerabilities, Part 2”, 6.

<sup>54</sup> *Ibid.*, 7.

<sup>54</sup> *Ibid.*, 6.

In 2009, the author was employed in the Joint Task Force Kandahar Headquarters Planning Cell. During the Operational Planning Process (OPP), the staff laboured to define the CoG for the mission in Afghanistan. The staff consulted various contemporary books and articles, personnel with prior experience in Afghanistan, and experts from Canada and the US. Despite best efforts to come to a consensus on a CoG, a clear and satisfactory definition remained elusive. In the end, the Canadian Land Operations Publication provided one solution - “for a counter-insurgency (COIN) campaign, the support of the populace is viewed as a key strategic centre of gravity.”<sup>55</sup> While this is true at the strategic level, it provided little more than a theoretical crutch for the operational and tactical planning.

The war in Afghanistan in 2009 was not the same war initially fought in 2001. In 2001, the war was a state on state conflict, albeit Afghanistan was on the verge of becoming a failed state, if not already classified as one. The Clausewitz CoG was applicable as the limited Afghan fighting force serving under the Taliban regime had to be neutralized in order to force the Taliban regime to capitulate. With the Taliban government toppled and an elected government in place, Afghanistan was recreated in political, military and economic terms of the Western allies. However, the new nation was far from stable and unable to provide for its internal security, requiring the Western militaries to maintain a prolonged presence.

To help stabilize the new nation, coalition forces were working with a newly elected government, the Afghan National Army and the Afghan National Police, all of whom were neither respected nor welcomed given their perceived installation by foreign militaries. The threats and obstacles to our efforts stemmed from corrupt warlords and elected officials, organized crime, and Taliban and other insurgents bent on toppling the elected government and

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<sup>55</sup> Department of National Defence, B-GL-300-001/FP-001, *Land Operations* (Ottawa: DND Canada, 2008), 2-16.



ousting foreign forces. Adding to the complexity was the involvement of Other Government Departments (OGD) and Non-Government Organizations (NGO), which often pressed on with their plans and goals despite the lack of resolution in security operations. After the initial incursion into Afghanistan, it was not a conventional operation. The operational theatre contained pockets of coalition controlled areas surrounded by regions where corruption, organized crime and insurgent activities were rampant. The conditions were set for an insurgency to flare up.

With the “wonderful trinity” undefinable, most of Clausewitz’s classic work was difficult to apply to operational planning for a COIN operation. What was the population that supported the insurgents? What was the main fighting force of the insurgents? What was the governing or controlling body of the insurgents? There was no nation openly confronting the coalition. As Echevarria noted, “if the situation is too chaotic or the foe is too fragmented or decentralized...then searching for a center of gravity is unlikely to prove worthwhile.”<sup>56</sup>

Clausewitz observed that the “The national spirit of an army (enthusiasm, fanatical zeal, faith, opinion,) displays itself most in mountain warfare, where everyone down to the common soldier is left to himself. On this account, a mountainous country is the best campaigning ground for a people in arms.”<sup>57</sup> Based on this observation, any complex terrain (jungle, urban area, mountains) is suited for insurgency operations. This has been the case in the jungles of Viet Nam against the French and the United States, in Mountains of Spain against Napoleon, and in number of insurgencies in recent history involving insurgent campaigns in built up and populated areas.

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<sup>56</sup> Antulio J. Echevarria II, “Clausewitz’s Center of Gravity Legacy”, *Infinity Journal Special Edition*, February 2012, 7.

<sup>57</sup> Carl von Clausewitz, *On War*, translated by Colonel J.J. Graham (New York, Skyhorse, 2013), 123.

If the CoG is a *primary entity* with the *capability to achieve the objective*, as defined by Eikmeier<sup>58</sup>, does the fighting element of the insurgents have a CoG? What is the primary objective of the insurgents? In Afghanistan it is to get rid of the coalition forces and re-install the Taliban rule. Can Taliban fighters take on the coalition forces in a conventional fight? The answer is no. They don't have the mass of fire power nor the numbers for a direct fight. Can they influence the outcome indirectly? Yes, they can resort to hit and run tactics against coalition forces and use terror against civilians to generate a dislike amongst the population for the government and the foreign forces supporting it. Therefore, in Afghanistan, at the operational level, the theoretical CoG of the insurgents is their fighting force.

Since the insurgent fighting force does not engage in conventional military battles and is impossible to identify in the population and the urban complex terrain, the theoretical CoG cannot be translated into a CoG that can be attacked and destroyed, as Clausewitzian theory dictates. Similarly, there is no specific "people" that can be identified from which insurgents originate, nor a specific official government that controls them. Finally, there is no official economic base or complex that funds the insurgents that can be pressured or attacked in order to stem the insurgent activities. Clausewitz considered the concept of CoG "valid only where the enemy possesses sufficient "unity" or "interdependence" (*Zusammenhang*) to act as a single body."<sup>59</sup> Therefore in COIN, the concept of CoG is not valid.

*Land Operations* elaborates on the concept to include CoGs "at each level of command, and [that] an adversary may have more than a single CoG. A CoG will exist wherever forces are

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<sup>58</sup> Dale C. Eikmeier, "Redefining the Center of Gravity", JFQ, Issue 59, 4<sup>th</sup> quarter 2010, 157.

<sup>59</sup> Antulio J. Echevarria II, "Clausewitz's Center of Gravity: Changing Our Warfighting Doctrine – Again!", September 2002, vi.

most concentrated and where there is significant cohesion.”<sup>60</sup> So conversely, where forces are not concentrated and where there is no significant cohesion, a CoG does not exist. Or more specifically, in COIN, where enemy forces are not concentrated and lack significant cohesion, a CoG does not exist.

As we have learned from the reviews of some of the works of Strange and Iron, Echevarrio, and Warden, insurgents do not have a CoG. The Warden model of rings works nicely with nation states, but fails to address an insurgency. Strange and Iron identify specific military forces at the operational and tactical level as the CoG. Since a band of insurgents is not considered a military force, they cannot be considered a CoG. Finally, Echevarria questions the validity of the CoG concept altogether, given it has not been properly challenged and analysed.

Given the various doctrines in the West cannot agree with the concept of CoG or even seem to be confident in what the CoG is and how best to find it to exploit it, CoG should not be given such a prominent role in campaign design. More specifically in COIN, the concept of CoG becomes unravelled and loses whatever utility the original metaphor provided for staff in planning for conventional warfare. For COIN operations, planning staffs should not be asked to search for something that does not exist. COIN operations cannot be planned with the same basic tools used for conventional operations. The composition, disposition, and support base for insurgents is not the same as for a nation state. The concept of CoG in COIN is not relevant.

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<sup>60</sup> Department of National Defence, B-GL-300-001/FP-001, *Land Operations* (Ottawa: DND Canada, 2008), 6-9.

## **Operational Design Proposal for COIN**

In COIN, if an end state is provided, it is very ambiguous. As concluded above, there is no CoG upon which to build a campaign plan. So, in the operational design for a COIN operation, where do the lines of operation end? Do they need to converge onto a single objective or can parallel lines of operation be conducted without having to converge or having to come to a predetermined end?

Consider any modern nation. For argument, say Canada. There is no insurgency being fought. The country is stable in all terms: economic, political, social, racial, and law and order. Yet, we have on-going police operations for the security and safety of Canadians. We haven't put away our policing tools nor is there a plan to do so when a certain state is reached. Arguably, our political and judicial systems continue to evolve, with no predetermined end state that we can agree will make it perfect. Similarly, our economic and military "line of operations" continue to adjust to changing times and fiscal realities with no determined end state. If we were to put together an operational design for the ongoing operations of Canada or any other modern stable state, we will not have an end state. We will have lines of operation occurring in a steady state, with spikes in lines of operations requiring augmentation or adjustment. For example a situation may require the military to support the civil authorities in the event of a natural disaster or a situation beyond the control of the police force. However, once the situation passes, our lines of operation return to the steady state. Given the level of advancement in Canadian society, using the term "lines of operation" may be absurd, but the terminology is used to draw a parallel with the ongoing efforts in Afghanistan.

It is not fair to compare the economic development, security and political lines of operation of Canada with a newly recovering state such as Afghanistan; however, the point is, in

a nation state, after the initial fighting is over, as was the case in Afghanistan after the overthrow of the Taliban Regime, there should be no hard predetermined end-state for its political, internal security, or economic development lines of operation. Development in these areas, as well as others that allow a nation to advance, will happen at a different pace for each nation, depending on a myriad of factors. For the new nation, such as Afghanistan, it will take considerable time and effort to reach the level of stability of a nation such as Canada or any other modern state.

For campaign planners and troop contributing nations, an open ended commitment is not feasible. As the recent pullout of foreign troops from Afghanistan has shown, there is a limit to contributing nations resources and political patience in a seemingly endless conflict such as an insurgency. So what can operational design look like in a COIN environment?

For operational design, once the conventional portion of the conflict is over, new lines of operation need to be defined along the lines of domestic security (law and order), political and economic development, and education and humanitarian issues. There may be others, but not all lines need to be included to discuss the model. In Figure 3, the emphasis is placed on a robust police based security element, which is supported by John Boyd in his presentation on guerrilla and counter-guerrilla campaigns.<sup>61</sup> According to Boyd, a good counter-guerrilla campaign will “...demonstrate integrity and competence of government to represent and serve needs of people...”<sup>62</sup> The police is best suited to be the face of the government to demonstrate integrity and competence at the individual level through patrolling and routine police duties.

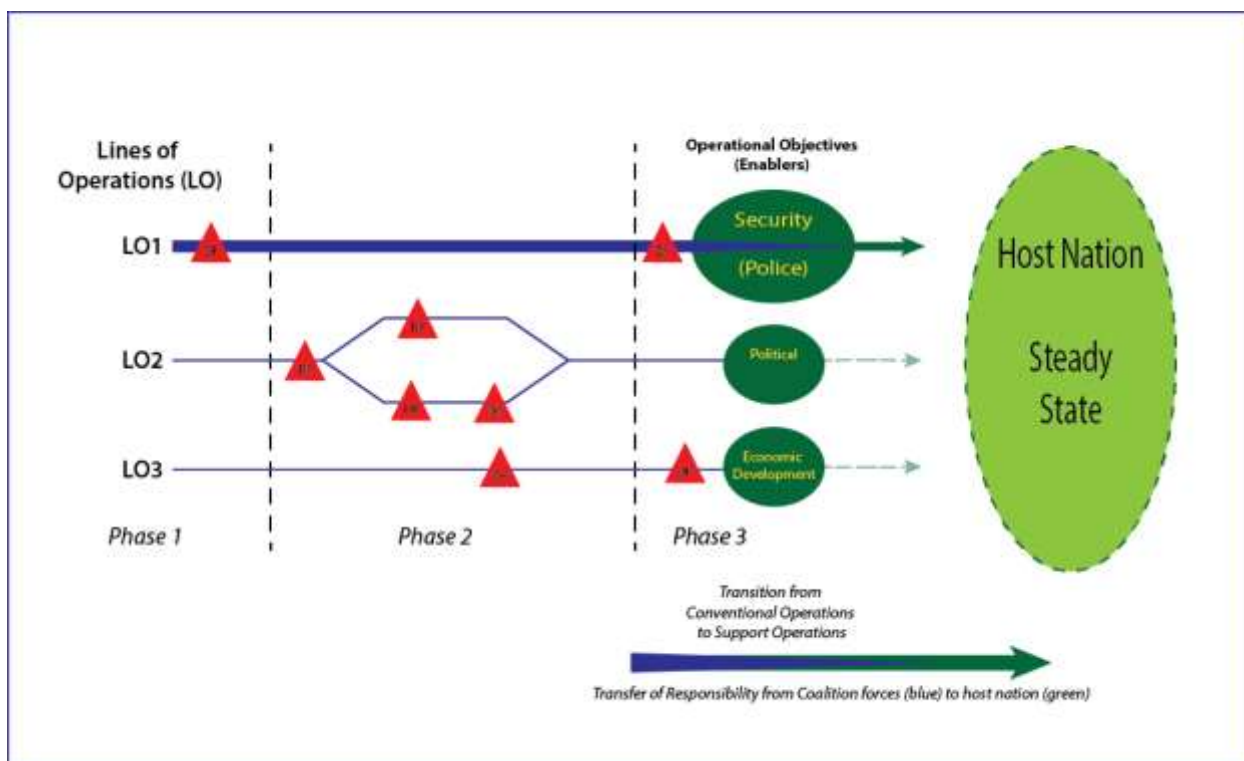
Initially, as in Afghanistan, the coalition forces will need to provide security while the host nation capabilities are brought online. Since security is key to any further advancement for the new nation, all efforts need to be made to ensure the population is safe and the nation’s

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<sup>61</sup> John R. Boyd, *Patterns of Conflict*, last accessed 17 August 2014, [http://www.dnipogo.org/boyd/patterns\\_ppt.pdf](http://www.dnipogo.org/boyd/patterns_ppt.pdf), 107-108.

<sup>62</sup> *Ibid.*, 108.

business - political, economic, and upholding the law- can be conducted without interference. However, these lines of operation unfold in parallel, once the security situation permits. Like the earlier example of Canada, the lines of operation never reach an end state, but progress towards a steady state, as shown in figure 3. The term steady state is used vice end state because the lines of operations will not end, even in modern states. There will continue to be evolution in the pillars of modern states (police, military, political, economic etc), but no end state.



**Figure 3 – Operational Design from Figure 1 modified for COIN.** The Operational Objectives shown in green help the Commander and the various organizations operating in the Area of Operations to focus their efforts in order to enable the host nation to work towards some stable steady state of governance, without the expectation of reaching a perfect end state.

In COIN operations, the general intent is to temporarily bolster the host nations government, police and military, as the Coalition Forces have been doing in Afghanistan. The coalition fighting the insurgency can only expect to maintain the peace, react to insurgent threats, and buy time for the host nation to resolve its internal issues with the help from the various

components in the nation's government and civil authority. A foreign force alone cannot defeat an insurgency in a third nation if the host nation, its people and government do not rise to the challenge of defeating the insurgents. This has been the case in Viet Nam, Iraq, and Afghanistan. The emphasis needs to be on the resolution of "internal issues".

If internal issues are the priority, all coalition efforts need to set the conditions for success in this area. Internal issues include law and order, so the citizens feel secure and safe. Other issues that lead to the sense of control and security include political stability, economic stability, and better humanitarian conditions for the population. Last in the priority of effort for a new nation should be an army, the primary function of which is to protect the nation's sovereignty. In a recovering state such as Afghanistan, the nation's sovereignty is protected by the international community while the nation establishes its internal capabilities for self rule and protection.

In March 2003, the Afghan National Army (ANA) consisted of 1750 members, which grew to 80,000 by March 2009.<sup>63</sup> The ANA is expected to grow to 134,000 by 2014 and will require an estimated funding of \$17 billion between 2010 and 2014.<sup>64</sup> The ANA was equipped with "80,000 AK-47s and other non-standard equipment," that included "machine guns, grenade launchers, shotguns, RPG launchers [and] vehicles and armour."<sup>65</sup> In contrast, in 2009, the Afghan National Police (ANP) consisted of approximately 76,000 police personnel at various levels of operational capacity, with a target end strength of 86,000.<sup>66,67</sup>

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<sup>63</sup> Afghan National Army (ANA), Institute For the Study of War (ISW), last accessed 17 August 2014, <https://www.understandingwar.org/afghanistan-national-army-ana>.

<sup>64</sup> *Ibid.*

<sup>65</sup> *Ibid.*

<sup>66</sup> Robert M. Perito, "Afghanistan's Police, The Weak Link in Security Sector Reform", *United States Institutes of Peace, Special Report 227*, August 2009.

<sup>67</sup> Afghan National Police (ANP), Institute For the Study of War (ISW), last accessed 17 August 2014, <https://www.understandingwar.org/afghan-national-police-anp>.

The population of Afghanistan is estimated at 31,280,518 for 2014.<sup>68</sup> This equates to a police to population ratio of 275.6 policemen per 100,000 Afghans. A newly formed nation struggling with crime and an insurgency has less police than modern, stable nations such as Austria, Barbados, Belgium, Cyprus, Germany, Greece, Hong Kong, Hungary, Ireland, Israel, Italy, Kuwait, Luxembourg, Malta, Mexico, Montenegro, Panama, Portugal, Singapore, Scotland, and Macedonia, to provide a partial list from the *International Statistics on Crime and Criminal Justice*.<sup>69</sup> To put it in other terms, modern, stable nations would not consider the population to police ratios of Afghanistan adequate for their needs, let alone in a nation trying to stabilize with the regular interference from insurgents.

It is a robust, over-sized police force that is key to fighting an insurgency. In his presentation, *Patterns of Conflict*, John Boyd lists the themes from Sun Tzu's *The Art of War*: "Harmony and Trust", "Justice and Well Being", "Deception and Subversion", and "Dispersion and Concentration".<sup>70</sup> The strategy from the theme as stated by Boyd is to "probe the enemy's organization and disposition to unmask his strengths, weaknesses, patterns of movement and intentions."<sup>71</sup> As experiences in Vietnam, Iraq, and Afghanistan have shown, this is not a task for conventional military forces. A police force consisting of the local population and familiar with the local culture and languages is best suited to spend prolonged time with the population, gain its respect and confidence, and conduct police investigations as are done against organized crime.

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<sup>68</sup> World Population Review, last accessed 17 August 2014, <http://worldpopulationreview.com/countries/afghanistan-population/>.

<sup>69</sup> S. Harrendorf, M. Heiskanen, S. Malby, *International Statistics on Crime and Justice*, United Nations Office on Drugs and Crime, European Institute for Crime Prevention and Control, Helsinki, 2010, 135-136.

<sup>70</sup> John R. Boyd, *Patterns of Conflict*, last accessed 17 August 2014, [http://www.dnipogo.org/boyd/patterns\\_ppt.pdf](http://www.dnipogo.org/boyd/patterns_ppt.pdf), 13.

<sup>71</sup> *Ibid.*



The other strategies listed by Boyd include the attacking of the “enemy’s plans as best policy. Next best disrupt his alliances. Next best attack his army. Attack cities only when there is no alternative.”<sup>72</sup> The latter two of attacking the army or the cities are not applicable in COIN operations. However, the attacking of the enemy’s plans or disrupting his alliances is similar to fighting organized crime. After investigation and definition of a criminal organization, the police take action on how best to bring the organization down through arrests or through turning key members of the organization into police collaborators.

The desired outcome, as stated by Boyd in this portion of his presentation, is that the enemy is subdued without fighting and protracted war is avoided. With the police investigation leading to arrests and open trials of insurgents for crimes against the nation, the sense of justice for all is reinforced with the open addressing of the grievances of the insurgents while those guilty of criminal activities are punished in accordance with the nation’s laws. The protracted war is avoided by foreign troops, which can start taking on less kinetic roles as the robust police force makes its presence known and felt with every new graduating class of police officers.

Given a nation’s army is primarily used to protect a nation from external threat and serve in secondary roles in domestic operations such as aide to civil power, the effort in training and equipping the ANA would have been better spent on the ANP. Although, in Afghanistan, the ANA conducted COIN operations with coalition troops and often on their own, they were no more effective than the coalition forces given their training as a conventional military. Despite their advantage of knowing the local culture and language, in the end their operations were nothing but conventional military operations in a COIN environment. Like their coalition mentors, they entered an area for a planned operation, then left the area, leaving no residual sense of security or connection with the population.

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<sup>72</sup> *Ibid.*

It is the professional police force that is better suited to provide presence in a population, investigate crime and unlawful activities, and bring perpetrators to justice in an open and fair manner. Where the military conducting kinetic operations will create martyrs and may generate collateral damage which further feeds the insurgency, police bringing criminals to justice provides for a sense of security and law that is needed in stabilizing a newly disrupted state such as Afghanistan. If the funds and effort were expended only on the police from the beginning, by 2014, the police force would have been approximately three times the current size. Once the tide of the insurgency was turned, the extra police could have been re-assigned to the military or the border police, as desired.

In 2001, after the fall of the Taliban regime, the coalition forces needed to control vital infrastructure and institutions while a concerted effort helped train an over abundance of professional and competent police men and women.<sup>73</sup> A professional police force that is capable of connecting with the population and winning their trust, is better suited to provide continued presence and security to the population than a conventional military force. The connection with the population and continued presence denies insurgents the freedom of movement and influence in the population. Whereas conventional forces react to insurgent actions or attack an insurgent presence, if detected, then leave the population to fend for itself with support from inadequate police, if any.

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<sup>73</sup> The issue of corruption in the ANP to this day has led to the lack of credibility of the ANP and continues to undermine the role of the police in the eyes of the population. The issue of corruption is addressable through better training, compensation and stricter disciplinary codes. As late as 2009, when the author was in Afghanistan, coalition forces, including OGDs, shrugged off police corruption as some sort of cultural necessity. This paper will not get into the effectiveness of the ANP given the mistrust Afghans have in their police. The paper will focus on the theoretical advantages of a professional and capable police force in COIN versus a conventional military.

The contrast is apparent from the roles of the two entities. In North American police services, the role is commonly portrayed through the phrase “to serve and protect the public”.<sup>74</sup> The motto of the Los Angeles Police Department since 1955 has been “To Protect and to Serve”.<sup>75</sup> In contrast, the role of a conventional army can be summarized by the role of the Canadian Land Forces, “to conduct land operational and tactical operations.”<sup>76</sup> Specifically in COIN, *Land Operations* states that the military “will play a supporting role in a COIN campaign, and all of its efforts must be harmonized in a comprehensive approach with those of other agencies to properly address the political, social and economic root causes of an insurgency. The military main effort is to provide the level of security that will allow these other organizations and elements of power to manoeuvre and operate.”<sup>77</sup> This role does not require the military to have a presence in the population or to conduct police-like investigations that could lead to the discovery of illegal activity ranging from minor infractions to major crime that supports the insurgency. The military surveillance and intelligence is focused on potential threats and targets for kinetic action. In the meantime, the erosion of law and order, proliferation of corruption, and lack of sense of security is driving the population towards the insurgents.

Therefore, the role of coalition forces in Afghanistan should have been to secure vital infrastructure and institutions, while the professional police force was created to provide lasting presence amongst the Afghans and to go after the insurgents in a way a conventional force could not. The police could have been supported by the coalition forces, as needed, similar to the support provided to Canadian police and government agencies under the aide to civil power

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<sup>74</sup> The Role of the Police, John Howard Society of Alberta 1997, last accessed 17 August 2014, <http://www.johnhoward.ab.ca/pub/C52.htm>.

<sup>75</sup> *The Origin of the LAPD Motto*, last accessed 17 August 2014, [http://www.lapdonline.org/history\\_of\\_the\\_lapd/content\\_basic\\_view/1128](http://www.lapdonline.org/history_of_the_lapd/content_basic_view/1128).

<sup>76</sup> Department of National Defence, B-GL-300-001/FP-001, *Land Operations* (Ottawa: DND Canada, 2008), 1-3.

<sup>77</sup> *Ibid.*, 3-10.

contingencies. This way, the lead agency responsible for finding and removing the insurgents from the population would have been an Afghan entity that knew the culture, the people and had the natural means of communicating with the population. In Afghanistan, coalition forces will always be seen as invaders and provide the ammunition for the insurgents to paint them as such. No matter how hard the coalition forces attempt to convince a mostly illiterate population otherwise, the repeated messages of insurgents will always win out unless a steady presence and security can be provided by police that the locals are likely to believe more than foreigners.

In Figure 3, the operational design diagram shows the CoG removed, as it does not apply in COIN. With the CoG removed, the lines of operation end at “Operational Objectives”. The lines of operation can still be vectored towards an “end state”, no matter how ambiguous it may be, but the end state will not be reached. The end state becomes more of a navigational beacon, like the North Star for sailors and hikers. This may not be what Coalition leaders wish to hear, but it is what they have been doing in Afghanistan for over ten years. No one has defined a CoG upon which meaningful action was taken and no one has come close to reaching the nebulous end state.

With the revised Operational Design plan for COIN, the deployment orders of battle can be adjusted to the needs of the specific lines of operation. Training requirements can be better defined with the deployed forces equipped accordingly. Better continuity can be expected from force rotation to force rotation as every new rotation will not come in with a redefined CoG and a corresponding campaign plan to go along with it. The host population will not be confused with the rotating policies and public messages every time a new headquarters or task force enters the theatre. The entire rotation plan can be based on the lines of operation, with the higher headquarters there to provide coordination and broader security.

## CONCLUSION

In conventional war involving nation states, Clausewitz's concepts and principle are enduring. With Clausewitz's "wonderful trinity" readily identifiable in conflicts between nation states, the application of his theories for modern campaign design in conventional warfare remains relevant and logical. However, when that trinity cannot be defined, then applying his theories without adjustment becomes a stretch.

Central to Western doctrine is Clausewitz's concept of CoG. At the strategic level, Clausewitz identified the military of a nation as one of its centres of gravity. At the operational level, the military is the only force that can destroy the military of its opponent in order to make him comply with the will of the victor. As Clausewitz stated repeatedly in his work, at the operational level, the CoG is the fielded military force of a nation engaged in the war. This metaphor applies readily for conventional warfare; however, when stretched for use in COIN, where the enemy cannot be clearly identified nor located, the concept of CoG begins to lose its utility.

In Western doctrine, there seems to be an obsession with including Clausewitz's theories, even when there are questions regarding their utility. For example, Canadian Forces Aerospace Doctrine defines the CoG based on Clausewitz's theory and then follows up with doubtful language without providing a clear stand on the acceptance of the theory. Similar language is used by other Canadian manuals, including *Land Operations* and *Operations and Planning Process*. It is as if the authors of the doctrine are not convinced Clausewitz's theories apply in contemporary operations, but are reluctant to counter the eternal Clausewitz. This reluctance to question Clausewitz becomes even more problematic in COIN operations.

In COIN operations, the definition of the CoG becomes less certain. If we insist on using Clausewitz's theories, we must reconcile the failure of his trinity model in the context of an insurgency. As argued by this paper, an insurgent does not have a readily identifiable "people," "army" or a "government". Insurgents have fighting forces, but their dispersal and lack of cohesion prevents them from being considered a fighting organizational structure.

The dogmatic search for CoGs where none exist is a waste of effort and resources. The products produced with this erroneous approach are leading to campaign designs that are nonsensical. A CoG, according to Clausewitz, should be something that can be attacked in force. If the concept of CoG is not applicable, we should recognize that. In Afghanistan, we have contrived CoGs ranging from "the media" to "the will of the people".

The thesis of this paper is that Clausewitz's 19<sup>th</sup> century concept of the centre gravity is not relevant in 21<sup>st</sup> century campaign design for COIN operations. For COIN operations, we need to follow Clausewitz's intent and avoid a formulaic following of his theories. Staffs need to be trained to "think rather than merely to absorb a particular jargon or vocabulary."<sup>78</sup>

As presented in this paper, campaign design for COIN needs to be reconsidered. Just as conventional warfare tactics cannot be used in COIN operations, conventional campaign design templates will not work for COIN campaign design. In COIN, the campaign design process should *not* require the staff to struggle with a metaphor that is no longer relevant. Commanders and staffs must get comfortable with the idea that COIN operations are rife with uncertainty and ambiguity. There are no formulaic CoGs to identify and exploit. If a strategic end state is not clearly articulated, then even the operational objectives will become nebulous.

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<sup>78</sup> Word Index to Carl von Clausewitz's *On War*. Last accessed 26 April 2014, <http://www.clausewitz.com/bibl/Wordndx.htm#T>.

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