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MASTER OF DEFENCE STUDIES RESEARCH ESSAY

Hunting Snakes with a Bear Gun?
Making sure that the Canadian Forces gets Transformation right.

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24 April 2006

TABLE OF CONTENTS

LIST OF FIGURES

ABSTRACT

The CF Vision announced by the current CDS in February 2005 created a framework for CF Transformation. The purpose of this paper is to ensue that in executing CF Transformation that we do not go hunting Snakes with a Bear gun. The paper addresses this issue in three areas. First, by providing an understanding of what has changed vis-à-vis post Cold War conflict. Second, the paper sets out to define what Snakes are, and are not. And third, to identify the key areas that must be considered to reconcile CF Transformation to the changed environment and threats. In so doing, this paper will first provide an understanding of how we came from a default focus on the Cold War's Bears to a current emphasis on Snakes. That is, what were the contextual changes to conflict in the post Cold-War era that have brought us from there to here? Thus the first chapter will concentrate on this question and provide a recommendation on an understanding of conflict that the CF could adopt. Second, having used a very accurate definition of Bears for over 50 years, the CF needs a usable definition of Snakes in order to affect its transformation. Ambiguity in definition permits a lack of focus, (and encourages wide interpretation), resulting in Snakes being anything to everyone, with the exception of conventional military threats from state actors. Therefore, the second chapter will outline a proposal on the definition of Snakes. And finally, having clarified where we came from, and defined what it is that we will fight, we will turn our attention to those key questions and issue areas that require serious reflection to ensure that the CF can adequately and appropriately address the Snakes in the new conflict environment it will find itself.

CFC Word Count: 21,204

Less than two weeks after assuming command of the Canadian Forces (CF) in early 2005, General Rick Hillier convened a decisive seminar for the CF's General and Flag Officers. The event itself was not a surprise to those invited but what was astonishing was the seminar's content. In his first opportunity to publicly reveal to his senior staff his conceptualization of the CF's future,[1] General Hillier provided the outline for an extensive re-working of the military and its orientation. This new "CF Vision" was in fact, an early, internal announcement of the Department of National Defence's (DND) contribution to the Government of Canada's then-unreleased International Policy Statement (IPS) which would not be tabled in Parliament for another two months.[2] DND's IPS portion, commonly referred to as the Defence Policy Statement (DPS), was only one of four nested policies captured under the larger IPS; Foreign Affairs Canada, the Canadian International Development Agency, and International Trade Canada provided their own representative pieces.

But it was General Hillier's CF Vision that focussed attention during the CDS' seminar, providing his audience with the environment, intent and overall concept of the soon to be released DPS, as well as the road map for the CF's Transformation. Early in the CF Vision presentation package, the CDS explained the underlying basis for Transformation, that is, the rationale as to why the CF needed to become more effective, relevant and responsive at home and abroad. The slide he used provided an immediate, intuitive and visually stimulating impact. On the left, is a stylized Soviet-era picture of a soldier of the former USSR, supported by agrarian and industrial workers, as well as the apparatus of state,

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[1] The portrayal of these events is based on this author's understanding of events at, and linked to, the CDS Seminar 15-17 February 2005, as revealed to the author during his involvement in the CDS Action Team on CF Command and Control (CAT 1). CAT 1 was one of four action teams created by the CDS, from March to June 2005 that preceded the CF Transformation Team.

represented by the hammer and sickle held aloft by the workers. It represented General

Hillier's "Bear", the Red Army of the past and the conventional armies of the past, present,

and (possibly) future, for which western democratic militaries had prepared in anticipation of

large-scale war directed at hostile nation states. The large-scale war never took place, and

during the past half-century since the Korean War, the CF played only nominal roles within

smaller conventional conflicts.

Figure 1: "The Bear"[3]

In contrast, on the slide's right is a smaller, grainy, and chilling photograph of a group

of numerous unidentified, and unidentifiable, masked people holding small arms aloft as a

means of demonstrating power and resolve. These are the CDS' "Snakes", the non-state

actors around the globe which nation states, and their conventional armies, now commonly

share as an enemy in the various conflicts around the globe. The Snakes defy conventional

military power and do not confront it openly since they would easily be destroyed. Instead

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[2] In fact, the whole IPS was not released until 19 April 2006. Refer to: Foreign Affairs Canada, "Canada's International Policy Statement," http://www.dfait-maeci.gc.ca/cip-pic/ips/highlights-en.asp ; Internet, accessed 10 March 2006.

they remain the shadowy, lurking and an often invisible spectre that does not play by the Bear's rules. Confounding traditional and conventional military doctrine, tactics, techniques, and procedures, the Snakes have now emerged from the darkness as significant actors within inter-state, intra-state, and global conflict.

Figure 2: "The Snakes"[4]

The underpinnings of General Hillier's Transformation are to make the CF more effective, relevant and responsive vis-à-vis these Snakes both at home and abroad.[5] It is now the Snakes, not the Bear that must become the CF's default focus. Visually, this concept of CF Transformation is almost intuitively transmitted through the CF Vision slides– from the default focus on the Bear (Figure 3 below), to the Transformed focus on the Snake (Figure 4).

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[3]Department of National Defence, *Setting Our Course: The Way Ahead for Our Canadian Forces.* Presentation Slide 2, "CF Transformation: From Vision to Mission – Reference Documents." http://www.cds.forces.gc.ca/cft-tfc/pubs/documents_e.asp; Internet, accessed 18 February 2006.
[4]*Ibid.* It should be acknowledged however, that the photograph was originally retrieved from the following Internet site: Biblehelp.Org, "What is 'Election' and 'Predestination?' http://www.biblehelp.org/elect.htm ; Internet, accessed 10 March 2006.

[5] Department of National Defence, *Canada's International Policy Statement: A Role of Pride and Influence in the World – Defence* (Ottawa: Department of National Defence, ADM(PA), 2005), 10-11.
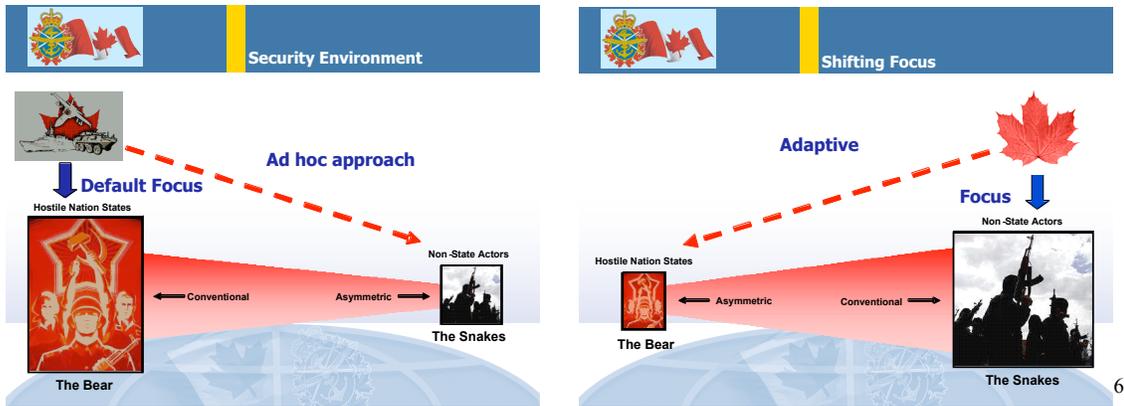
Figure 3   Figure 4

However, although the CF Vision provides the impetus for change, further detail is required in order to achieve this change. Instinctively, as a military professional, one readily identifies with the CF Vision slides, but to achieve military ends against Snakes, the ways and means of doing so must be defined. Transformation of any organization is difficult, but it is all the more so without a solid understanding of how the situation has changed, the new goal to be achieved, and the ways and means to get there. The topic is undoubtedly being discussed by responsible commanders and energetic staff officers (both military and civilian). The object here is not to discount or challenge their efforts. The point is that there is little formal discussion on the topic of Snakes and Transformation beyond that which is discussed within academic circles, the formal and informal reviews and development within allied militaries, and the limited purview of those CF commanders and staff presently working this issue. If the CF is going to harness the irresistible momentum required for this Transformation, this issue needs to be professionally discussed and debated openly.

CF Transformation must ensure that we do not go hunting Snakes with a Bear gun. To do this, we must understand what has changed vis-à-vis post Cold War conflict,

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[6] Department of National Defence, *Setting Our Course*...Presentation Slides 2 and 4.

accurately define what Snakes are (and are not), and pose the key questions and identify the key areas that must be considered to reconcile the CF to its changed environment and threats. To do so, this paper will first provide an understanding of how we came from a default focus on the Cold War's Bears to a current emphasis on Snakes. That is, what were the contextual changes to conflict in the post Cold-War era that have brought us from there to here? The first chapter will concentrate on this question and provide a recommendation on an understanding of conflict that the CF could adopt. Second, having used a very accurate definition of Bears for over 50 years, the CF needs a usable definition of Snakes in order to affect its transformation. Ambiguity in definition permits a lack of focus, (and encourages wide interpretation), resulting in Snakes being anything to everyone, with the exception of conventional military threats from state actors. Therefore, the second chapter will outline a proposal on the definition of Snakes. And finally, having clarified where we came from, and defined what it is that we will fight, we will turn our attention to those key questions and issue areas that require serious reflection to ensure that the CF can adequately and appropriately address the Snakes in the new conflict environment it will find itself.

You have to know the past to understand the present.
Dr. Carl Sagan, American astronomer, writer and scientist, 1934-1996[7]

CHAPTER I

FROM WHERE TO HERE: UNDERSTANDING CONFLICT'S CONTEXTUAL FRAMEWORKS.

This chapter will reflect on the understanding of conflict over the past decade and a half, an exercise which is critical to CF Transformation for three reasons. First, we must recognize and acknowledge that there have been several fundamental changes to the context of conflict since the Cold War's end and that this contextual alteration has driven our shift in focus from Bears to Snakes. Second, given both the contextual changes and shift in focus, it would be perilous to launch on a process as complex and challenging as CF Transformation without having a body of critical and analytical thought to support the facts and assumptions required of this transformation. In sum, though we do not lack the professional competence and zeal for transformation from within the CF, we require the support of a contextual framework that can buttress our work and adapt as required to a Canadian model. And finally, given the plethora of frameworks, theories, thoughts and musings from a wide variety of sources, a short summary and analysis of them is needed. Without a comprehension of where each of these ideas came from and what they mean, we may suffer the danger of simply employing them as transformational "buzzwords", rather than harnessing the critical thought and analysis behind each concept.

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[7] This quotation was provided from: Thinkexist.Com "Finding Quotations was never this Easy." http://en.thinkexist.com/search/searchquotation.asp?search=past%20to%20present&page=4 ; Internet, accessed 11 March 2006.

The purpose of this chapter is to provide the CF with a useable framework for understanding conflict that it can use to sustain our transformation. The chapter will be divided into four main components. First, a chronological review of the contextual transformation of conflict and the resulting frameworks available from this body of knowledge will be provided. Second, an analysis of frameworks will be offered, classifying these frameworks into what we will call "practical" and "futuristic divisions." And finally, a recommendation for a useable conflict framework will be provided, not only to set the conditions for the following chapter's discussion on Snakes, but also to help provide the CF with a useable framework to enable Transformation. An annex is included at the end of this paper to outline those conflict themes and methods that appear in the wider body of literature but do not stand on their own as frameworks.

Additionally, two important points should be noted with this particular chapter. First, that I believe there is a certain value in providing a description of the following conflict frameworks because each of these ideas did not burst out of a vacuum and enter into the minds of those who crafted the Vision. There is an intellectual framework underneath the Vision and it is critical that it is properly understood by those who wish to study Transformation. Second, that although the ideas may initially seem dated, my literature review of post-Cold War conflict frameworks suggest that the was a great deal of academic interest in this subject during the early to mid-1990's, but that the interest waned by the close of the century and since 9/11 the focus has not been on the framework of conflict, but in identifying the players in conflict. In particular, there has been a certain fascination in studying "terrorists". Again, this should reinforce the first point, in underscoring the need to understand where it is that we came from in the post-Cold War world.

A Chronological Review of Conflict Frameworks

As noted, a review of the body of knowledge surrounding conflict's contextual change is essential background to our understanding of Bears, Snakes and the future. It must be acknowledged at this point that there is a myriad of hypotheses, models, thoughts and assumptions on the changed nature of conflict. The size of this body of literature far exceeds the scope and size of this paper. Thus, to make the analysis more manageable, I will concentrate on those frameworks, concepts and ideas brought into the CF lexicon since the end of the Cold War, which are relevant to our Transformation. In so doing, I fully acknowledge that there may be gaps and omissions within this review. However, any absence or deficiency within the review should be solely attributed to my oversight, out of ignorance to the existence of a specific context or model, and not because any specific context or model was intentionally determined to be unworthy of study.

As previously indicated, the review will commence with those elements that first originated at the Cold War's close and then introduce the successive frameworks within a chronological order. To note, most of these contextual frameworks have developed over the past decade and a half and took varying lengths of time to be refined and expanded. For practical purposes, each framework will be presented in its entirety, regardless of the time that it took to be refined. The intent here is to explain the framework rather than provide its developmental history or compare its interaction with other frameworks, models, or musings.

The contextual conflict frameworks will be presented in the following order: Fourth Generation War; the Transformation of War; Cyberwar; the Revolution in Military Affairs; Asymmetric War; and Fourth Generation War Plus.

Fourth Generation War (1989)

This framework was first presented by William S. Lind and his co-authors in 1989.[8] The 1989 version stated that military development is a continuous evolutionary process, that the modern era has witnessed three significant watersheds, which in turn had produced three distinct generations. First generation warfare was that of the smoothbore musket and the tactics of line and column. Second generation warfare was a response to increased firepower and lethality – the rifled musket, breechloaders, barbed wire, the machine gun, and indirect fire. Third generation warfare was another response to increased firepower; however it was the idea of manoeuvre, rather than attrition, and the introduction of the German *blitzkrieg* (lightning war) that characterized this generation.[9]

Lind and his associates noted that four characteristics within each of the three generations continued to increase in influence: mission orders, dispersed logistics, the growing importance of manoeuvre over mass and firepower, and finally the goal of collapsing an enemy internally (their centre of gravity) rather than externally attacking and physically destroying him.[10]

The fourth generation itself was not clearly defined, in fact Lind *et al* assert that their purpose is to pose the question of a fourth generation, not answer it. Thus they provide a wide assessment to this specific generation: that warfare will become more dispersed and undefined, that the civilian/military distinction will tend to disappear, that action will occur throughout society and culture and not just in a physical military sense, and that installations

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[8] William S. Lind, *et al.* "The Changing Face of War: Into the Fourth Generation," *Marine Corps Gazette* (October 1989): 22-26.

[9] *Ibid.*, 23.

[10]*Ibid.*

and large logistics will become vulnerabilities despite being enablers.[11] Finally, they argued

that both technology and ideology would be the drivers within fourth generation warfare, but

again it was not clearly defined at this time.[12]

By 1994, Lind and his associates incorporated Martin van Creveld's trinitarian war

concept (discussed in the next section) into their line of reasoning and refined their

framework further with three central ideas. Although others may disagree, they argue that:

the nation-state has lost its monopoly on war; the world has returned to a conflict of cultures;

and US multiculturalism has brought about the abandonment of traditional US Judeo-

Christian values.[13] Despite the cultural chauvinism expressed by the last two ideas, their

proposal to adopt van Creveld's trinitarian war and emphasis on the state's loss of the

monopoly on violence were the most significant developments to fourth generation warfare

(4GW).

In 2001, in response to the terror attacks of 9 September, Lind was quick to point out

that terrorism, a technique, was not 4GW writ large. He underscored that 4GW is broader

than any one technique and as such, there are no technical or programmatic answers to it.[14]

However, a combination of Lind's patriotism and xenophobia expressed itself in his four-

point 4GW response to September 11. He advocated that the US should have "…wiped

Taliban-held Afghanistan off the map, using nuclear weapons….to make an example of them

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[11] *Ibid.*, 23-24.

[12] *Ibid.*, 24-26.

[13] William S. Lind, John F. Schmitt, and Gary I. Wilson, "Fourth Generation Warfare: Another Look," *Marine Corps Gazette* 78, no. 12 (December 1994) [journal on-line]; available from http://proquest.umi.com; Internet; accessed 26 February 2006.

[14] William S. Lind, "Fourth Generation Warfare's First Blow: A Quick Look," *Marine Corps Gazette* 85, no. 11 (November 2001) [journal on-line]; available from http://proquest.umi.com; Internet; accessed 26 February 2006.

[the Taliban/al-Qaeda] for others."[15] Second, he supported a US withdrawal from "taking part in everyone else's quarrels."[16] Third, Lind encouraged the reunification of western Christendom, to include Russia, and invite Chinese and Hindu culture to "build and encircling alliance against the main threat, Islamic culture."[17] And finally he opposed a multicultural US, opting instead for a "historic, unified culture' without clearly defining what that meant.[18] Beyond Lind's extremely neo-conservative views from this period, it is important to note that although earlier 4GW writings had asserted the developing role of terrorism in 4GW, by 2001 there appears an outright rejection of the notion. Undoubtedly this nuance was motivated by the events of September 11th.

Finally, Lind appears again in 2004, reasserting the four generations, in particular, clearing embracing the three concepts of: the loss of the state's monopoly on war, a historic return to a world of cultures (and Lind's assault on Islam), and the now "poisonous ideology of multiculturalism."[19] Additionally, Lind asserts that 4GW is not a novel way of warfare, rather it is a return to the methods of war prior to the rise of the state, hence opponents do not restrict themselves to military or political targets and the tactics employed are not new, rather they are old guerrilla or terrorist tactics enhanced with today's technology. Finally, Lind

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[15] *Ibid.*

[16] *Ibid.*

[17] *Ibid.*

[18] *Ibid.*

[19] William S. Lind, "Understanding Fourth Generation War," *Military Review* 84, no. 5 (September/October 2004) [journal on-line]; available from http://proquest.umi.com; Internet; accessed 26 February 2006.

contends that 4GW is not characterized by how an enemy fights, but in who fights and what they are fighting for.[20]

In summary, the importance to our understanding of Lind and his 4GW is reflected in his framework of four generations of warfare, linked to changes in technology and society, and the incorporation of van Creveld's notion that the state has lost the monopoly on war.

The Transformation of War (1991)

Martin van Creveld opens his book, *The Transformation of War,* with the notion that conventional military power is no longer relevant to contemporary war because the in vast majority of the approximately 160 armed conflicts since Second World War, conventional armies have not waged war. Instead, he argues that what has occurred are high numbers of low-intensity conflicts (LICs), characterized by four components: they tend to take place in the developing world, they very rarely involve regular armies on both sides, and they do not rely on the high technology collective weapons that are the pride and joy of modern armed forces, and they have been far more bloody than any other kind of war fought since 1945.[21] LICs run contrary to what van Creveld identifies the rise of "Trinitarian War" in the Westphalian world. Trinitarian war, based on the three legally separated components of the nation-state – governments, armies, and people – was created in the crucible of 1648 and reached its ultimate zenith by 1945 as "Total War".[22]

Van Creveld suggested that modern, non-trinitarian, LIC owes its rise in part to the Second World War because the monstrous nature of German and Japanese occupations

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[20] *Ibid.*

[21] Martin van Creveld, *The Transformation of War* (New York: Simon & Schuster, 1991), 20.

[22] *Ibid.*, 41, 42-49.

violated established ethical norms: people had the right to revolt even though their armies had capitulated and their governments had surrendered. The principle took root and was turned against its original western proponents during colonial wars for independence, causing conflicts waged by entities other than states to multiply, so much so that none of those currently being fought anywhere around the world fits the traditional Trinitarian pattern[23]

What would have made them weak in a Trinitarian War actually proved to be strengths when these movements ignored conventional war-fighting methods. Their economic resources were weak, encouraging them to commit criminal acts, thereby blurring the distinction between war and crime. Criminal profits paid for their conflict. They were militarily weak at the outset, without a regular organization, experience, or heavy weapons. They were too weak to carry arms openly, and this, coupled with their inability to afford uniforms, meant they did not turn themselves into easy targets. They could not and did not abide by the established rules of war. Far from observing the distinction between combatants and non-combatants, they tried to abolish it.[24] Non-trinitarian methods were extremely effective and its practitioners seldom had to close the war before regular forces broke and evacuated the field. Often regulars felt that counterinsurgency was not 'their' kind of war, and that it would end up destroying them even if something like military victory seemed within reach.[25] Although it may have had its origins in wars of independence, LIC's success against conventional military power has prompted its widespread proliferation and adaptation.

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[23] *Ibid.*, 58.

[24] *Ibid.,* 59.

[25] *Ibid.*, 60.

Van Creveld also provides a framework for conflict that he describes as "Future War," which is defined as wars waged not by armies, but what we would today classify as terrorists, guerrillas, bandits and robbers. Their leadership will be charismatic, not institutional, motivated by fanatical ideologies, and is indistinguishable from the organization as a whole. Rooted in some form of population base, the organization will not be easily separable from the population. The territory or frontiers of this form of warfare is unlikely continuous, contiguous, or impenetrable.[26]

In addition, Future War will see the reduction of today's bureaucratic war making organizations to be replaced by groups built on personal and charismatic foundations. Further developments of Non-trinitarian conflict will breakdown war conventions and international law as the state becomes further removed and the lines between the military and the people become blurred. Further, the potential for the use of prohibited weapons, like toxic industrial chemicals or materiel will increase, because they are relatively cheap, readily available, easily manufactured and employed in urban areas. However, Van Creveld does concede that Future War LIC will be conducted with some form of conventions, because conflict without a set of clear and widely shared ideas is impossible in the long run.[27]

Van Creveld goes on to propose that Future war will cause different outcomes. One of these will be to negate the most powerful and advanced weapon systems because they will become strategically irrelevant. Regular armed forces will shrink in size and wither away. They will be replaced by the booming security business and the time may come when these businesses, like the *condottierei* – 15th century Italian mercenaries – take over the state itself.

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[26] *Ibid.*, 197-198.

[27] *Ibid.*, 200-204.

Belligerents intermingling with the civilian population and extreme dispersion will continue to increase, again negating the most powerful and sophisticated weapons. This does not mean there is no place for technology, but it is technology that produces the small, cheap, mass produced and readily available gadgets for war.[28]

Van Creveld's importance to our study is the following: the framework of Trinitarian and Non-trinitarian war and the latter's increasing prominence; the identification of the rise of LICs and its participants with an equivalent decline of conventional wars and militaries; and the characteristics of Future war.

Cyberwar (1992)

John Arquilla and David Ronfeldt introduced the notions of "Cyberwar" and "Netwar" in a RAND Corporation publication in 1992. Their thesis was that the information revolution would cause shifts in how societies come into conflict, and how their armed forces wage war. Broadly defined, Netwar is societal-level ideological conflicts waged through internetted modes of communication and Cyberwar is conflict at the purely military level.[29]

Netwar was further defined as information-related conflict at a grand level between nations or societies in order to disrupt, damage, or modify what a target population 'knows' or thinks about itself and the world around it. A Netwar would focus on public and elite opinion, involving diplomacy, propaganda and psychological campaigns, political and cultural subversion, deception of or interference of the media, and efforts to promote a dissident or opposition movements across computer networks.[30]

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[28] *Ibid.*, 205-210.

[29] John Arquilla and David Ronfeldt, *Cyberwar is Coming!* (Santa Monica, CA: RAND, 1992), 4.

[30] *Ibid.*, 5.

By comparison, Cyberwar referred to preparing and conducting military operations according to information-related principles. It meant a number of things. Disrupting (if not destroying) the information and communications systems, broadly defined to include even military culture, on which an adversary relies in order to 'know' itself. It meant knowing all about an adversary while keeping it from knowing much about oneself. It meant turning the 'balance of information and knowledge' in one's favour, especially if the balance of forces is not. And finally, it meant using knowledge so that less capital and labour may have to be expended.[31]

Although in later years the Cyberwar framework would increasingly become a talisman for the technological aspect of conflict, the authors warned that Cyberwar should not be confused with the traditional meanings of computerized, automated, robotic, or electronic warfare. Though it was true that Cyberwar in its advanced form required advanced technology, Arquilla and Ronfeldt, highlighted that it was not reliant upon advanced technology per se. Cyberwar does not necessarily require the presence of advanced technology. The organizational and psychological dimensions may be as important as the technical. In sum, the authors projected that Cyberwar may actually be waged with low technology under some circumstances.[32]

Additionally, Arquilla and Ronfledt underscored the difficulties institutions have when fighting networks. Accepting that the military (an institution) is particularly dependant on a hierarchy, and accepting that networks are organizationally flat, it follows that the information revolution will favour network over hierarchical designs. In studying the current

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[31] *Ibid.*, 6.

[32] *Ibid.*, 8.

trend towards LICs, the authors concluded that "international terrorists, guerrilla insurgents, drug cartels, ethnic factions, as well as racial gangs, and smugglers of illegal aliens"[33] are organized like networks, though their leadership may be quite hierarchical. Consequently, they concluded that institutions, like the military and police, have difficulty engaging in LICs because they are not meant to be fought by institutions. "The lesson: Institutions can be defeated by networks. It may take networks to counter networks. The future may belong to whoever masters the network form."[34]

Arquilla and Ronfeldt continued elaborating on both Cyberwar and Netwar with a series of successive RAND reports. Netwar was readdressed in 1996 to focus on irregular modes of conflict to include; terror, crime, and militant social activism.[35] Additionally in 2001, they proposed that government and its institutions need to address the Netwar being conducted by terrorists, criminals, gangs, extremists, and civil-society activist by adopting Netwar against these groups.[36]

Contrasting the larger perspective of Arquilla and Ronfeldt, there is a group of authors that have seized on the idea of Cyberwar and focus on the purely technical aspects of this domain. Best illustrated within three successive books from 1996 to 2000, entitled *Cyberwar, Cyberwar 2.0, and Cyberwar 3.0.* Edited by Alan Campen and Douglas Dearth (the original included Thomas Goodden as well) these books were anthologies of

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[33] *Ibid.*, 17.

[34] *Ibid.*

[35] John Arquilla and David Ronfeldt, *The Advent of Netwar* (Santa Monica, CA: RAND, 1996). Available from http://www.rand.org/pubs/monograph_reports/MR789/; Internet; accessed 12 March 2006.

[36] John Arquilla and David Ronfeldt, *Networks and Netwars: The Future of Terror, Crime and Militancy.* (Santa Monica, CA: RAND, 2001). Available from http://www.rand.org/pubs/monograph_reports/MR1382/index.html; Internet; accessed 12 March 2006.

contemporary information revolution essays. They primarily focused on Cyberwar's technical aspect of information warfare, rather than holistically on the entire military portion of Cyberwar, like Arquilla and Ronfeldt. These subsequent authors were strongly linked to the concept of the information revolution and the significant role that technology plays in Cyberwar.[37]

The relevant aspect of the Cyberwar and Netwar discussion for our use is that Arquilla and Ronfeldt provided a conflict framework for the information revolution. Within this context they suggest that Netwar, a large and cross-societal (political, military, and cultural) internetted method of warfare, and Cyberwar, the purely military means of Netwar, constitute the present and future of conflict. And they believed that networks, which are non-hierarchical in nature, will defeat institutions because they are hierarchical. Finally, it should be acknowledged that while Arquilla and Ronfeldt created a holistic approach to the Netwar/Cyberwar context, a cottage industry has developed around the term Cyberwar. Although they identified Cyberwar as important in its own right, the cottage industry does not necessarily represent what the authors originally intended because of its intense focus on the idea of information technology and information dominance, particularly by the US military.

<u>The Revolution in Military Affairs (1993)</u>

The Revolution in Military Affairs (RMA) will be arbitrarily placed at 1993, with the publication of Alvin and Heidi Toffler's book *War and Anti-War,* which was a military

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[37] For further information refer to: Alan D. Campen, Alan D, Douglas H. Dearth and R. Thomas Goodden, Eds. *Cyberwar: Security, Strategy, and Conflict in the Information Age* (Fairfax, VA: AFCEA Press, 1996.), Alan D. Campen, and Douglas H. Dearth. *Cyberwar 2.0: Myth, Mysteries and Reality* (Fairfax, VA: AFCEA Press, 1998.), and Alan D. Campen, and Douglas H. Dearth. *Cyberwar 3.0: Human Factors in Information Operations and Future Conflict* (Fairfax, VA: AFCEA Press, 2000).

adaptation of their much earlier book *The Third Wave* (1980).[38] It is at this point when RMA

became a fashionable concept, although three well-known authors had written previously on

technologically driven changes to the military: Bernard and Fawn Brodie (1973), Trevor

Dupuy (1984), and van Creveld's *Transformation of War* (1989) (discussed earlier).[39]

With respect to defining RMA, Richard Hundley's 1999 definition is one of the

clearest:

> An [*sic*] RMA involves a paradigm shift in the nature and conduct of
> military operations, which either *renders obsolete or irrelevant* one or
> more *core competencies* of a dominant player, or creates one or more new
> core competencies, in some new dimension of warfare, or both. [Emphasis
> in original][40]

Hundley clarifies this even further, noting that if a development in military technology does

not render a core competency of a dominant player obsolete or create a new core

competency, it is not a RMA.[41]

Using a historical analysis of technology from the longbow to nuclear weapons,

Hundley provides 10 distinct and noteworthy characteristics of RMA in order to further

clarify his position:

(1) RMAs are rarely brought about by dominant players;

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[38] An excellent historical perspective on RMA is provided in: Elinor C. Sloan, *The Revolution in Military Affairs: Implications for Canada and NATO* (Montreal/Kingston: McGill-Queen's University Press, 2002) 18-31. The military adaptation of *The Third Wave* is explained as the impetus for *War and Anti-War* in its first chapter. For further details, refer to: Alvin and Heidi Toffler, *War and Anti-War: Survival at the Dawn of the 21st Century* (Boston: Little, Brown & Company, 1993), 9-12.

[39] For additional information refer to Chapter 2 in: Richard. O Hundley, *Past Revolutions, future Transformations: What can the history of revolutions in military affairs tell us about transforming the U.S. Military?* (Santa Monica, CA: RAND, 1999). Available from http://www.rand.org/pubs/monograph_reports/MR1029/; Internet, accessed 10 March 2006.

[40] *Ibid.*

[41] Hundley, *Past Revolutions…*, 11.

(2) RMAs frequently bestow an enormous and immediate military advantage on the first nation to exploit them in combat;

(3) RMAs are often adopted and fully exploited first by someone other than the nation inventing the new technology;

(4) RMAs are not always technology driven;

(5) Technology-driven RMAs are usually brought about by combinations of technologies, rather than individual technologies;

(6) Not all technology-driven RMAs involve weapons;

(7) All successful technology-driven RMAs appear to have three components – technology, doctrine, and organization;

(8) There are probably as many "failed" RMAs as successful ones;

(9) RMAs often take a long time to come to fruition; and,

(10) The military utility of RMAs are frequently controversial and in doubt up until the moment it is proven in battle.[42]

Hundley asks whether current trends are really a RMA and determines that it is too soon to tell. He points to Andrew Marshall's from the Pentagon's Office of Net Assessment in 1993:

> …the full nature of the changes in the character of warfare have [sic] not yet fully emerged; therefore, the referent of the phase, "the military revolution," is unclear and indeed should remain to some extent undefined. It would be better to speak about the **emerging** military revolution, or the **potential** military revolution. What we should be talking about is a hypothesis about major change taking place in the period ahead, the next couple of decades. [Emphasis in Marshall's original.][43]

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[42] *Ibid.*, 11-17.

[43] Andrew W. Marshall, *Some Thoughts on Military Revolutions,* Memorandum for the Record, OSD Office of Net Assessment, July 27, 1993, as quoted in Hundley, *Past Revolutions…*, 20.

In 2002, Elinor Sloan provided an outstanding contribution to understanding the
RMA framework that is particularly useful to our study, not only because of its breadth and
depth, but also since she incorporated a NATO and Canadian piece into the work, which does
not exist in the larger body of literature due to overwhelming US dominance.[44] Although
Sloan herself does not present a specific definition of RMA (she provides a few others from
the overall body of work), her proposal is closer to the predominant view of a RMA. That is,
she proposes one based on information age technology which differs from Hundley's original
context. Thus, Sloan's current RMA is characterized by the Tofflers' Information Age,
coupled with the dramatic technological advances of the past three decades, which in turn
have fundamentally demanded new doctrine and organizations in order to gain the edge over
one's opponents. These technological developments include, but are not limited to: precision
force and precision guided munitions; force projection and stealth; battlespace awareness and
control; revolutionary joint and service doctrines; and revolutionary organizations.[45]

For the purpose of this paper there are two major themes that need to be stressed vis-
à-vis RMA. First is Hundley's definition of RMAs in general, that it involves a paradigm
shift which renders obsolete or irrelevant one or more core competencies of a dominant
player, or creates one or more new core competencies, in some new dimension of warfare, or
both. And second, borrowing from Sloan, that the current context of a RMA is based on the
revolution of the Information Age, coupled with quantum advances in the application to, and

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[44] Refer to Sloan, *The Revolution in Military Affairs*.

[45] Sloan, *The Revolution in Military Affairs*, 4-20.

employment of, militarily relevant information based technologies, doctrines and
organizations.

<u>Asymmetric Warfare (1994)</u>

Although Andrew Mack had first coined the term "asymmetric warfare"[46] in a 1975
essay concerning the US failure in Vietnam, the post Cold War introduction came in 1994
with a work by Thaza Paul.[47] Both of these authors defined asymmetry as a power
imbalance. A weak state required an asymmetric strategy in order to indirectly attack the
will of their opponent. And although it was high risk for the weaker states, it did mean that
they were not deprived of military options against stronger opponents.[48] Shortly thereafter,
the framework of asymmetric warfare took hold within the United States. Initially, the US
Department of Defense (DoD) adopted the term and it appeared in Joint Doctrine and the
National Military Strategy in 1995 and by 1997 in the *Report of the Quadrennial Defense of*
Review and with the National Defense Panel. By 1999 it was appearing broadly across US
sources[49] and by extension other militaries' key documents including those of the CF. From
their 2001 publication, Steven Metz and Douglas Johnson provide the following definition:

> …asymmetry is acting, organizing, and thinking differently than
> opponents in order to maximize one's own advantages, exploit an
> opponent's weaknesses, attain the initiative, or gain greater freedom of
> action. It can be political-strategic, military-strategic, operational, or a

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[46] Andrew Mack, "Why Big Nations Lose Small Wars," *World Politics 27*, no. 2 (January 1975): 175-200 as quoted in John F. Newton, "Asymmetry in War – Abused and Overused." (Toronto: Canadian Forces College Advanced Military Studies Course Paper, 2004), 5.

[47] T.V. Paul, *Asymmetric Conflict: War Initiation by Weaker States* (University Press: Cambridge, 1994), 250 as quoted in John F. Newton, "Asymmetry in War – Abused and Overused." (Toronto: Canadian Forces College Advanced Military Studies Course Paper, 2004), 6.

[48] John F. Newton, "Asymmetry in War – Abused and Overused." (Toronto: Canadian Forces College Advanced Military Studies Course Paper, 2004), 5-8.

[49] Steven Metz and Douglas V. Johnson, Asymmetry *and U.S. Military Strategy: Definition, Background, and Strategic Concepts* (Carlisle, PA: Strategic Studies Institute US Army War College, 2001) 2-3.

combination of these. It can entail different methods, technologies, values, organizations, time perspectives, or some combination of these. It can be short-term or long-term. It can be deliberate or by default. It can be discrete or pursued in conjunction with symmetric approaches. It can have both psychological and physical dimensions.[50]

During the same year, the CF adopted the US DoD Joint Staff definition of asymmetry from a September 2001 report that was released by the Deputy Chief of Defence Staff (DCDS) the following March. During the same year, the CF adopted the US DoD Joint Staff definition of asymmetry included in a report the latter released in September 2001. The DCDS released its own report with a similar definition in March 2002. Though it is close to the Metz and Johnson definition, it lacks the detail that those authors provide, stating that:

The asymmetric threat is a term used to describe attempt to circumvent or undermine an opponent's strengths while exploiting his weaknesses, using methods that differ significantly from the opponents usual mode of operations.[51]

Metz and Douglas identify several aspects of asymmetry. They distinguish positive and negative aspects of asymmetry – positive is taking advantage with an asymmetric difference, negative is one's opponent doing the same in return. They introduce an element of time, classifying both short and long term asymmetries. Asymmetry can be applied deliberately or by default as well as being either low or high risk to its practitioners. Additionally, the authors point out that asymmetry can be discrete or integrated with symmetric techniques and it can exist in a material or psychological form.[52] In specifically dealing with asymmetry's forms, Metz and Douglas classify six components: the method (concepts, doctrine, tactics), in technology; with will (strategic level) and morale (operational

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[50] *Ibid.*, 5-6.

[51] Canada, Department of National Defence, *The Asymmetric Threat, 1 September 2001* (Ottawa: Department of National Defence, DCDS, 2002), 1-2.

and tactical levels), on norms (normative ethical and legal standards), of organization (of

opponents), and finally of time or patience of the participants.[53]

In 2003 Roger Barnett contributed further to the framework of asymmetry. He was

critical of the US Joint Chief of Staff (JCS) definition, which by this time had evolved to:

"Attempts to circumvent or undermine an opponent's strengths while exploiting his

weaknesses using methods that differ significantly from the opponent's usual mode of

operations."[54] Barnett argued that the JCS' definition defined strategy as emphasizing one's

strengths and exploiting an enemy's weakness. His point was that "true" asymmetries are

"…those actions that an adversary can exercise that you either cannot or will not."[55] He

continues with this reasoning stressing that true asymmetries pose grave difficulties, noting

that if one cannot, or will not, respond in kind, similar counteractions are impossible or

problematic, and that asymmetrical methods are countercultural – some asymmetric

techniques or weapons are abhorrent to the Western world. This makes it difficult to reason

adequate defences or counters.[56]

Barnett does classify asymmetrical warfare for us and provides us with an additional

context in this changed world. He identifies this warfare as: terrorism; hostage taking;

biological, chemical and radiological warfare; deliberate wide-scale attacks on civilians;

deliberate environmental destruction; and, a long list of operational techniques from

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[52] *Ibid.*, 6-8.

[53] *Ibid.*, 9-12.

[54] Roger W. Barnett, *Asymmetrical Warfare: Today's Challenge to U.S. Military Power,* (Washington, DC: Brassey's, 2003), 15.

[55] *Ibid.*, 15.

[56] *Ibid.*, 16.

indiscriminate targeting to human shields to perfidious information operations.[57]

Additionally, these methods are applied in a changed world. Quoting Adda Bozeman, he

offers four ways in which the world has changed:

> 1. The states system has ceased to be what it used to be between the
> Groatian seventeenth century and our twentieth century.
> 2. Our understanding and definitions of 'war' are hopelessly out of date,
> and the same holds, *mutatis mutandis,* for 'peace.'
> 3. The international law of war is basically irrelevant today, and I doubt it
> can become relevant again.
> 4. 'National Security' can no longer be calculated and rendered in terms
> of military preparedness and treaty provisions.[58]

An additional supplement to asymmetric war was provided in 2005 by Ivan Arreguin-

Toft. His definition closely resembled that of US DoD and JCS, identifying asymmetric

conflict as "those [conflicts] in which one side is possessed of overwhelming power with

respect to its adversary."[59] What Arreguin-Toft added to the discussion, was his theory of

asymmetric conflict – he wanted to validate or rebuff some of the present theories about

asymmetric conflict. First, he argued that the nature of the actors' interests will determine its

behaviour, e.g. a strong actor whose survival is not at stake, may be unwilling to sustain high

costs whereas a weak actor who is committed to its cause may be willing to assume high

costs. Second, he noted the importance of regime type, suggesting that democracies are too

weak willed or casualty sensitive to be effective. And third, he argued that with respect to

weaponry, weak actors are not really weak because of the diffusion of small arms and other

advanced technologies at the level of engagement between the weak and strong actors.

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[57] *Ibid.*, 18.

[58] *Ibid.*, 135.

[59] Ivan Arreguin-Toft, *How the Weak win Wars: A Theory of Asymmetric Conflict,* (Cambridge
University Press, Cambridge, 2005) xi.

Additionally, Arreguin-Toft proposed that a same approach to strategic interactions would favour attackers in proportion to their advantage in material resources. The opposite approach strategy would favour defenders, regardless of the attacker's materiel preponderance. Additionally, Arreguin-Toft proposed that when two actors use the same approach to strategic interactions, the attacker would be favoured in proportion to its advantage in material resources. But, if defenders used a different – or opposite – strategic approach, they would have the advantage, regardless of the attacker's superiority in material and resources.

In examining five historical case studies - the Murid War (1830-59), the South African War (1899-1902), the Italo-Ethiopian War (1935-1940), the US in Vietnam (1965-1973) and the Afghan Civil War (1979-1989) – Arreguin-Toft argued that same approach interactions favour strong actors while opposite approach interaction favoured weak actors. Thus, his model could be used to explain the impacts on interests, regime type, weaponry, even strategy. Potentially, this could have huge implications with policy-makers and strategists.

Finally, it should be noted that much like Cyberwar, asymmetric conflict has suffered expansive interpretation. In 2003 Stephen Blank drew attention to the confusion occurring within the US DoD, military, and the wider public between the understanding of asymmetric threats and that of the nature of war or strategy. Blank concentrated on clarifying the misuse of asymmetric threats since it was clouding the accepted position on the asymmetry of war or asymmetric nature of strategy established by the authors above.[60] It is important to highlight this confusion because even though Blank clarified the threat component, there are still

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[60] Blank, Stephen, J. *Rethinking Asymmetric Threats.* Carlisle, PA: Strategic Studies Institute US Army War College, 2003.

authors who are not clarifying this issue and the net result is confusing the body of work dealing with asymmetric conflict. For our purposes we will concentrate on the contribution of those authors identified within this paper.

There are a number of items dealing with asymmetric conflict that we should underscore for our purposes when discussing this framework. First is Metz and Johnson's notion that there are positive and negative asymmetries. Second, is their concept that these exist in terms of: method, technology, will/morale, norms, organizations, and time. Third, is the key theme from Barnett that "true" asymmetry comes from the fact that there are things that we cannot or will not do. And finally, from Bozeman via Barnett, is the identification of four changes underlying asymmetry: the significant changes to our understanding of the traditional state system; archaic definitions about war and peace; the irrelevance of international law; and accepting that military preparedness and treaties no longer result in "National Security."

<u>Fourth Generation War Plus (1994)</u>

What I will refer to as Fourth Generation War Plus (4GW+) framework was first proposed by Thomas X. Hammes in 1994, then a US Marine Corps Lieutenant-Colonel attending the then National Defence College (NDC) in Kingston, Ontario.[61] To note**,** Hammes' NDC paper was published later that year in the *Marine Corps Gazette*.[62] Hammes calls his model 4GW, but in order to distinguish Lind's framework from Hammes', I will designate the latter's as 4GW+ throughout this paper.

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[61] T.X. Hammes, "The Evolution of War: A Fourth Generation" (Kingston: National Defence College of Canada Course Paper, 1994).

[62] Thomas, X. Hammes, "The Evolution of War: The Fourth Generation," *Marine Corps Gazette* 78, no. 9 (September 1994) [Journal on-line]; available from http://proquest.umi.com; Internet; accessed 26 February 2006.

Hammes accepted Lind's 1989 construct of the four generations and characterized

generations one through three, respectively, as: massed manpower, massed firepower, and

manoeuvre. Yet Hammes disagreed with Lind's focus on technology and ideology as being

the drivers to change, postulating instead that the impetus for change were political, social

and economic factors.[63] Using an example from the second generation war that evolved out

of the massed firepower of the First World War, Hammes argued that it was not simply

Lind's "improved weaponry" of the second generation that marked its change. It was also

the society of the time, the international political structure that focused on a balance of

power, formed alliances, the output of an industrial society in terms of transport, equipment

and ammunition, as well as a social system that brought millions of men to the front despite

catastrophic losses.[64] Hammes also disagreed with his contemporaries who cite the impact of

the information revolution on tactics and weapons. His point is that although the information

revolution will affect the future of conflict, a focus on weapons and tactics is as

fundamentally flawed in the fourth generation, today, as it was in any other. [65]

In Hammes' model, the impacts on the political economic and social changes in

society, combined with technological change, are what are important. Therefore, with

politics he highlights the fourth generation's increase in non-state actors, particularly

international, transnational, and subnational groups.[66] Economically, he notes that

globalization is intertwining and dividing the world – intertwining it in terms of trade, yet

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[63] *Ibid.*

[64] T.X. Hammes, "The Evolution of War: A Fourth Generation" (Kingston: National Defence College of Canada Course Paper, 1994), 2-3.

[65] *Ibid.*, 3.

[66] Hammes, "The Evolution of War…" [Journal on-line].

dividing in terms of wealth distribution. The integration of global economies has resulted in major restrictions on the ability of nation states to exercise traditional instruments of national sovereignty, including the unilateral use of military power.[67] Socially, international, transnational, and subnational networks are developing, tying people together in non-traditional ways. Simultaneously, allegiance to ethnic, religious or cultural groups is increasing. Furthermore, education is expanding worldwide. The overall effect of these networks, allegiances and education is a weakening of the state-citizen link.[68] Finally, Hammes underscores the increasing trend of these interconnected political, economic and social networks across the whole spectrum of human activity, at an unprecedented level in our history.[69]

To further develop his theory, Hammes turned to the authors of *Cyberwar is Coming!*, John Arquilla and David Ronfeldt. While discounting Cyberwar as "essentially third generation warfare made vastly more lethal through the use of information technology,"[70] he used their concept of Netwar because it spanned the whole spectrum of conflict across political, economic, social and military forms of war.[71] Moreover, Hammes used van Creveld's vision that future war will not be a relatively simple, high-tech, conventional war, but rather an extremely complex low-intensity conflict, because the information age has reduced the advantages in mid and high-intensity conflicts.[72] Then

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[67] *Ibid.*

[68] *Ibid.*

[69] T.X. Hammes, "The Evolution of War… (Course Paper), 6.

[70] *Ibid.*, 7.

[71] *Ibid.*, 7-8.

[72] *Ibid.*, 8.

Hammes used four case studies in the evolution of insurgency to validate his new assumptions of 4GW+: China, Vietnam, Nicaragua, and the Palestinian West Bank.[73] What Hammes was able to prove from his case studies, (with further insights from Lebanon, Somalia, and Bosnia) was that 4GW+ confirmed both van Creveld's low intensity assumptions, and Arquilla and Ronfeldt's Netwar across the entire political, economic, social and military spectrums. Additionally, he also discovered that 4GW+ tactics are not exclusive to this time but also existed alongside the tactics of earlier generations.[74]

Hammes concluded that war is now evolving in conjunction with the political, economic and social changes within our global society as a whole and that it is not linked strictly to technology. Further, on the strategic level, 4GW+ attempts to directly change the minds of the opponent's leadership and policymakers. Tactically, 4GW+ will be fought via complex low-intensity conflicts, will include tactics, techniques, and procedures of earlier generations, will occur across the full spectrum of political, economic, social and military networks, will be fought globally through these networks, and will involve a mix of national, international, transnational and subnational actors.[75]

A decade later, Hammes produced a much larger work, *The Sling and The Stone*, which fleshed out his earlier paper, with references to the increasing number of new examples available from 1994. In sum, Hammes reaffirmed that 4GW+

> …uses all available networks – political, economic social, and military –
> to convince the enemy's political decision makers that their strategic goals
> are either unachievable or too costly for the perceived benefit. It is an
> evolved form of insurgency. Still rooted in the fundamental precept that
> superior political will, when properly employed, can defeat greater

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[73] *Ibid.*, 9-24.

[74] *Ibid.*, 24-26.

[75] Hammes, "The Evolution of War…" [Journal on-line].

economic and military power, 4GW [+] makes use of society's networks to carry on its fight. Unlike previous generations of warfare, it does not attempt to win by defeating the enemy's military forces. Instead, via the networks, it directly attacks the minds of enemy decision makers to destroy the enemy's political will. Fourth-generation wars are lengthy – measured in decades rather than months or years.[76]

Hammes also adds two additional arguments. The first is the long time scale of 4GW+ struggles. For example, achieving victory took Chinese Communists 37 years, Vietnamese 30 years, Sandinistas 18 years, Palestinians 37+ years, and Afghans 10 years. Second, only 4GW+ has defeated a superpower – US and USSR – and it is the type of war the US is currently fighting in Iraq, Afghanistan and worldwide against terror.[77]

In summary, Hammes' 4GW+ framework embraces the four generation framework provided by Lind, including the state's loss of monopoly on war (less Lind's continued emphasis on global cultural clash and negative multiculturalism), but discounts the notion that technology drives generational change, and incorporates the view that political, economic, social and military networks produce generational change. Further, it is these networks that enable the 4GW+ opponents to engage and defeat pure military force because the ultimate aim of 4GW+ is to attack the minds of leadership and decision makers the networks' direct and indirect means. Additionally, Hammes underscores the long duration of 4GW+ and the fact that only 4GW+ has defeated superpowers.

An Analysis of the Six Conflict Frameworks – Practical and Futuristic Approaches

In this section a brief analysis will be provided on the six usable conflict frameworks – 4GW, the Transformation of War, Cyberwar, the RMA, Asymmetric War, and 4GW+ – by

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[76] Thomas X. Hammes, *The Sling and The Stone: On War in the 21st Century (*St. Paul, MN: Zenith Press, 2004), 2.

[77] *Ibid.* 14-15.

examining them within what I will term practical or futuristic contexts. Once categorized, a short comparison between the two approaches will be undertaken in order to refine the scope and depth of the frameworks that we should consider adopting so as to enable CF Transformation in accordance with our CF Vision.

The *Concise Oxford English Dictionary* (2004) defines practical as; "1 of or concerned with practice. 2 likely to be effective in real circumstances; feasible. suitable for a particular purpose."[78] The following definition is given for futuristic; "**1** having or involving very modern technology or design. **2** (of a film or book) set in the future, typically in a world of highly advanced technology."[79] Both of these categories are useful descriptions by which to consider our six conflict frameworks. Within these two approaches, the practical approach is more applicable to the Transformation of War, both 4GW frameworks, and Asymmetric War, while the futuristic approach applies to the Cyberwar and the RMA frameworks.

A practical approach can be ascribed to the Transformation of War, 4GW and 4GW+, as well as Asymmetric War because all four of these frameworks literally satisfy the concept of being "practical." Van Creveld's Transformation of War work came directly out of his analysis of real circumstances since 1945. It provided a contemporary review of those factors and deductions flowing from conflict and brought him to a conclusion about the new nature of war – that it was becoming increasingly Non-trinitarian and that LICs were on the rise.

Lind's and Hammes' variants of Fourth Generation War are also derived from the practical. Roughly borrowing the Tofflers' technology revolution idea to frame

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[78] *Concise Oxford English Dictionary,* Catherine Soanes and Angus Stevenson, Eds. (Oxford: Oxford University Press, 2004) 1126.

[79] *Ibid.*, 579.

developmental events (though they would both discount the notion that technology drives the change), both use real circumstances of the past and present to define their framework for conflict. Being absolutely practical, both authors (though Hammes more so) permit continuous adaptation of their frameworks to reflect present day realities. They reflect the realities of the US-led GWOT and OIF/OEF enter into their frameworks and welcome the refinements that these present day realities bring from the real, practical, world.

And finally, the Asymmetric War framework is also a practical approach to conflict. The notion of Metz and Johnson's positive and negative asymmetries and six contexts – of method, technology, will/morale, norms, organizations, and time – amply demonstrate that the framework is, as our practical definition describes, both feasible and effective in real circumstances. Additionally, Barnett's revisiting of Bozeman's four underlying causes to asymmetry (change to the system of states, archaic concepts of war and peace, irrelevance of international law, and unimportance of treaties and military preparedness to national security as a whole) underscores how each of these significant components, drawn together from contemporary observations and analyses, are suitable for the real, immediate and upcoming conflicts of our world.

On the other side of the coin there the two futuristic approaches, Cyberwar and the RMA. In keeping with their characterization, both are fully occupied in exceedingly modern, and future, technology and design, as well as providing a visionary outlook to the future, embodied in a world of highly advanced technology. The new Cyberwar specialists have usurped Arquilla and Ronfeldt's original Cyberwar design and have defined it in the very way that the original authors cautioned against. This can easily be illustrated in the familiar sense by the *Concise Oxford Dictionary* where Cyberwar is identified as "the use of

computers to disrupt the activities of an enemy country, especially the deliberate attacking of communication systems." Though this definition is far more restrictive than that explained previously, the outcome remains the same – the current understanding of Cyberwar relates to those information operations conducted across the information spectrum by diverse agents, not strictly military ones. Today's Cyberwar includes a futuristic promise of **a**chieving information superiority or dominance by an actor over another, the dominant actor typically represented by the US military as being the US military. But it is just a promise, an apparition, a future vision that is firmly rooted within a futuristic view.

The RMA is another framework that holds visionary capital with the futurists. The sense that the information revolution has brought a quantum advantage to those forces (again predominantly the US military) over their adversaries. RMA advocates point out in the preceding section, that we are just at the beginning of this RMA and that its development will take another three decades. Immediately this accentuates their inextricable link to a futuristic vision, set in a world of highly advanced technology. In harnessing the information revolution, RMA advantages are reliant upon emerging and future technologies, to such a degree that the unknowns of these emerging and non-existing future technologies bring a greater unknown to the course of RMA. The critical element with respect to RMA is that it is, in fact, a future vision itself. While Cyberwar can point to present-day examples, the current RMA can only provide its prediction for the future. As such it is clearly embedded in a futuristic setting.

Consequently, the futuristic and practical approaches need to be resolved between each other. I contend that the CF Vision is rooted in the practical approach and that it is this approach that should be harnessed for CF Transformation for the following four reasons.

First, while Cyberwar and RMA have vast potential for a conventional, state actor to dominate a similar conventional, state actor, there is little promise as to its utility against either non-conventional or non-state entities.[80] The practical approach suggests non-conventional conflict and non-state actors will increase and these are the very types of agents in present and future conflicts that Cyberwar and RMA will not have a significant advantage over. There is little advantage to following the futurists down a path where their advantage is only gained in an ever diminishing arena.

Second, we need to consider the temporal dimension to these two approaches. The practical deals with the present while the futuristic deals, not surprisingly, with the future. The element of the here and now to our discussion is completely germane. Today and in the near future, we need to deal with Snakes, and that lends itself to a practical approach. Waiting to transform the CF along a futuristic vision is far too risky because the futurists cannot and will not address the Snakes of either today or the future. The practical approach is based on today's context and has the flexibility to adapt to the changing situation involving the increasing trend of non-state actors and LICs. Thus, from the point of view of time, we need to adopt a practical approach.

Third, Sloan notes a point by Michael Margolian and Michael O'Hanlon, that pursuing an extreme version of RMA risks, "placing all of one' eggs in one basket and therefore putting at risk the ability to effectively manage and respond to a future crisis."[81] The risk is the uncertainty of the future that cannot be predicted by the futuristic vision. The path that Cyberwar and RMA take may not deal effectively with future conflicts. In contrast,

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[80] This point is an amalgam of several contributed by both Hammes, *The Sling and The Stone*, 5-7; and Sloan, *The Revolution in Military Affairs,* 29-31.

[81] Sloan, *The Revolution in Military Affairs,* 31.

the practical approach accounts for the future in that it is firmly based in accepting existing observations within a well defined framework provided by *The Transformation of War.* Unlike the futuristic approach, the practical approach knows where it is going, thereby reducing the risk and uncertainty so familiar with Cyberwar and the RMA.

And finally, it is only sensible to note that the costs associated in achieving Cyberwar and RMA in terms of research and development, technology investment, training and infrastructure will likely be well beyond the purview of nations like Canada and militaries like the CF. Although this paper does not investigate the financial, scientific, technical, monetary or personnel resources truly required of Cyberwar or RMA, a perceptive estimate would place these forms of investment and sustaining costs well ahead of anything proposed by a practical approach. It would be an interesting investigation and is undoubtedly something being considered within the US DoD via responsible reporting to Congress.

Given the above, the frameworks from the practical approach are those which should be adopted for CF Transformation. This conclusion is based on the balance of evidence given: the global transformation to Non-trinitarian war and LICs; the temporal nature and immediacy of solution provided by the practical approach; and the risk and uncertainty embedded within the futuristic approach. Additionally, the almost certain considerable cost differential in approaches, particularly relevant to a country like Canada, would further convince us to look toward a practical, versus a futuristic framework approach.

A Useable Framework to Enable CF Transformation

This final section will recommend from the practical frameworks, one that could provide the intellectual foundation for the CF Vision as well as a useable framework for our transformation.

First, van Creveld's Transformation of War should be adopted as the underlying foundation to this body of work. Full recognition of the non-trinitarian nature of today's conflicts, the prevalence of LIC, and the increasing trend towards more of both in the future provide us with the intellectual cornerstone for transformation. Additionally, van Creveld's tenets on Future war should be adopted, including its participants, battlespace, organization, methods, weapons, and norms. Van Creveld sets the stage for our transformation framework.

Second, the notion of asymmetric warfare should be more vigorously adapted by the CF, concentrating not on asymmetric threats (which Blank discourages) but on the nature of asymmetric conflict. This includes those issues previously identified: the aspect of positive and negative asymmetries; asymmetry existing in terms of method, technology, will/morale, norms, organizations, and time; the recognition from Barnett that there are those things "we cannot or will not do"; and Bozeman's four universal changes. Complementing van Creveld's work, this body of asymmetric warfare would provide us with further refinements to our doctrine and sets a framework for understanding conflict as a whole.

Finally, Hammes' 4GW+ provides important underpinnings of a transformation framework and the CF Vision. Refined well beyond that provided by Lind (and certainly less controversial and inflammatory than Lind's recent proposals), Hammes' four generational structure is the practical way ahead. The concept of societal networks within the political, economic, military and social realms, and the point that 4GW+'s ultimate aim is to use interconnected networks to attack the minds of leadership and decision makers by both indirect and direct means, demonstrate Hammes' completely practical and usable approach. Further, his points that 4GW+ is a long-term proposition and that it has been the only means

of defeating conventional superpowers like the US and USSR demonstrate that this framework delivers the most promise in our increasingly Non-trinitarian and LIC world.

In summary, this Chapter set out to provide the CF with a useable framework for conflict to provide the intellectual foundation for our Vision and supply the necessary doctrinal base to enable our Transformation. Our review of 4GW, the Transformation of War, Cyberwar, the RMA, Asymmetric War, and 4GW+ offered differing and diverse frameworks for conflict were offered. After grouping the six frameworks into practical and futuristic approaches and then assessing these approaches, we determined that the practical approach would provide the best way ahead for the CF. Finally, in accepting the practical approach, the Transformation of War was proposed as the overarching framework to confirm the CF Vision, with Asymmetric Warfare and 4GW+ providing the necessary intellectual and doctrinal base to enable Transformation.

Having now defined where it is that we came from in the post-Cold War world **and** armed with the recommendation to adopt the Transformation of War, Asymmetric War, and 4GW+ as the intellectual underpinnings of CF Transformation, we can turn our attention to the question of Snakes, how to define them and their implications for the CF Vision and CF Transformation. For without knowing what they truly are, we may still end up hunting them with a Bear gun.

We have gone from the Warsaw Pact type of state player that threatens us, to a ball of snakes. And that ball of snakes is seen differently by many folks....Because the snakes are all different, some are lethal, some make you sick, some change, some grow, some are really chameleons and change based on the circumstances....

General Hillier to the Canadian Institute of Strategic Studies, 22 July 2005.[82]

CHAPTER II

DEFINING SNAKES.

This chapter will propose a usable definition of Snakes, which is critical to CF Transformation for two reasons. First, we need to reduce ambiguity on that which we call a Snake. The difficulty is that although the images of Snakes within the CF Vision provide an immediate, visual, and indeed, visceral impact, a series of pictures does not lend itself to defining the new threat that challenges Canada today. Therefore we need to look past the images and provide a useable definition on what a Snake truly is. Second, we must identify those Snakes that the CF can impact upon and change focus from the Bear. Just as General Hillier identified in the quote above, there are many different types of Snakes. Their great number would suggest that perhaps the CF is not ideally suited to deal with each type, in every possible case. In order to narrow the focus of the threat for Transformation, we have to concentrate on those Snakes that are threats to Canada, Canadians and our interests abroad, and that can be dealt with by military means.

This chapter will review Snakes through a simple construct that is easily understood: who, what, where, why, and how. The "when" is deliberately missing because Chapter I provided us with the when – it is today and into our foreseeable future. The chapter will be

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[82] Rick, J. Hiller, "Setting Our Course," Implementing Canada's Defence Policy Statement, Canadian Institute for Strategic Studies. Toronto, 22 July 2005. Available from http://www.cds.forces.gc.ca/cft-tfc/pubs/speeches_e.asp; Internet, accessed 10 March 2006.

divided into three main components. First, it will examine the grand sum of threats to

Canada, Canadians, and our global interests, and define the "who": what Snakes are of

concern to the Canadian Forces? Second, knowing who these Snakes are, define "where"

they are in the world. And finally, with each Snake, answering the what, why and how in

order to complete the process. In this manner, we will have formulated a coherent definition

that is useable for CF Transformation. With a this definition in hand, we will know better the

threats the CF faces and help ensure that the CF does not hunt Snakes with our present Bear

gun.

<u>Who are the Snakes that concern the CF?</u>

Beyond the image of Snakes first presented in the CF Vision, there are a recurring

number of pictures throughout this critical presentation. They repeatedly appear on slides

that reinforce the CF's roles, that is: protecting Canadians, defending North America in

cooperation with the United States, and contributing to international peace and security.[83]

Should we then assume that these pictures are the Snakes that the Canadian Forces need to

address in order to fulfil our roles in Canada, North America, and the world?

Figure 5 – Three Snakes[84]

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[83] Department of National Defence, *Canada's International Policy Statement: A Role of Pride and Influence in the World – Defence,* (Ottawa: Department of National Defence, ADM (PA), 2005), 2.
    [84] Department of National Defence, *Setting Our Course*...Presentation Slides 3, 5, 14, 16.

Unfortunately, while it is reasonable to expect that these pictures represent some Snakes but are presented in part for dramatic effect. They are not, however, representative of all of the Snakes that we in the CF need to deal with as a transformed armed forces in the 21st century. And so the challenge for this section is to define those Snakes that are the CF's concern.

The academic literature and wider commentary suggest a large variety of Snakes for us to consider. This section will examine the existing literature and commentary but a complete review exceeds the limits of this paper. More importantly, there are specific national documents which provide guidance. Thus, our National Security Policy (NSP), International Policy Statement (IPS), and the IPS Defence component the Defence Policy Statement (DPS) will be crucial to our understanding of Snakes. Therefore this section intends to address Snakes as a whole body, and then determine which particular kinds of snakes are a concern to the CF.

<u>Some Initial Thoughts on Snakes.</u>

In 2001, retired US Air Force General Michael Carns wrote a piece about deterrence, focusing on the "Russian Bear, Asian Dragons, and 1,000 Snakes."[85] Carns characterized these Snakes as:

> ...'non-traditional' threats and menaces emanating from rouge states, sub-state and trans-national terrorists, insurgents, illegal drug traffickers, organized criminals, warlords, militant fundamentalists, ethnic cleansers, and 1,000 other 'snakes' with a cause – and the will to conduct asymmetrical warfare.[86]

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[85] William J. Crowe Jr, "Introduction," in *Deterrence in the 21st Century,* ed. Max G. Manwaring, 1-3. (London: Frank Cass and Company, 2001), 3.

[86] Michael P.C. Carns, "Reopening the Deterrence Debate: Thinking about a Peaceful and Prosperous Tomorrow," in *Deterrence in the 21st Century,* ed. Max G. Manwaring, 7-16. (London: Frank Cass and Company Ltd., 2001), 8.

Carns point was that, as a whole, Snakes had become organized, highly-trained, organizations capable of conducting an offensive campaign against a variety of nations and social systems through both direct and indirect means, normally not at the conventional level. Although Carns used this definition to explore US deterrence issues, his pre-September 11 assessment would prove somewhat insightful to future events. Although his thinking was not wholly groundbreaking – there had been a plethora of research by academics, and defence and security analysts in the same area – he did provide us with an allegory to Snakes.

Similar thoughts on Snakes reappeared in 2004, not unexpectedly from Carns' editor Max Manwaring, who described the threats to US and western interests as the same 1,000 other snakes – rogue states, nonstate and transnational terrorists, insurgents, illegal drug traffickers, organized criminals, warlords, militant fundamentalists, ethnic cleansers – all with a cause and the will to achieve their own political objectives.[87] Manwaring provides us with another vivid assessment of Snakes, but again much like Carns and the CF Vision, this assessment is not particularly useful in achieving a CF definition because it is simply too vague. In the same vein, yet another writer bundles these threats together, referring to the components of this larger group as: "terrorists, weapons proliferators, organized crime affiliates, drug traffickers, and cyberoutlaws."[88] The point is that there is a wide range of debate and discussion within the larger body of knowledge on this topic and although much of it is the same, there are nuances between authors. Therefore in an effort to narrow the focus, we will look at two Snake models, one from the UK and one from the US.

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[87] Max G. Manwaring, *Shadows of things Past and Images of the Future: Lessons for the Insurgencies in our Midst,* (Carlisle, PA: Strategic Studies Institute US Army War College, 2004), 38. Available from http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB587.pdf; Internet, accessed 8 March 2006.

[88] Brian Michael Jenkins, "Redefining the Enemy: The World Has Changed, But Our Mindset Has Not," *Rand Review, Spring 2004* (Santa Monica, CA: RAND, 2004). Available from http://www.rand.org/publications/randreview/issues/spring2004/enemy.html; Internet, accessed 10 March 2006.

Snakes as Defined by the UK Joint Doctrine and Concepts Centre (JDCC)

In March 2003 the JDCC, as part of the UK Ministry of Defence (MOD), published

its *Strategic Trends - First Edition*, with the intent to capture security issues over a 30-year

planning horizon. The JDCC divided its military study into interstate conflict, intrastate

conflict, and non-state actors. The following very detailed chart is important to our

understanding of Snakes:

Sectarian	Obsessionalists	Militarists	Profiteers	Proliferators
Tribalists	Vigilantes	Mercenaries	Cartels	Of Information
Religious denominations	Single issue movements	Extreme right paramilitaries	Criminals	Of Technology
Nationalists	Cults	Private military companies	Opportunists	Of Weapons
Insurgents	Sects		Pirates	
Revolutionists	Radicals			
Warlords	Mentally unstable individuals			
Dissidents	Anarchists			
Militants	Dissidents			
Gangs	Militants			
	Instigators			

Figure 6 – UK JDCC Table C - Potential Non-state Adversaries

One should note from Figure 6, that the term "terrorist" does not appear, but not

because the UK does not recognize the term. Rather, the UK MOD acknowledges terrorism

as a tactic, normally a tactic of an insurgent although it could be applied by any one of these

non-state actors.[89] Additionally, the "rouge states" of the previous authors did not make it

into the chart, because of the chart's non-state orientation. However, this certainly didn't

preclude the UK's willingness to participate in the 2003 invasion of Iraq

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[89] For further clarification on this issue refer to: United Kingdom. Ministry of Defence. *Army Field Manual Volume V – Operations Other Than War, Counter Insurgency Operations, Part 1 &2 (Army Code No 71596 Parts 1&2)*. London: Ministry of Defence, 1995. Available from http://barker.cfcacad.net/Admin/jointdocs/britpubs/coin1-2.pdf ; CFC Intranet, accessed 15 March 2006.

There are two specific points relating to this chart that need to be highlighted. First, the list, when state and sub-state military actors like rogue states militaries, militias and the military actors in failing states are added, provides a reasonably succinct starting point for our discussion on Snakes. Second is that in addition to providing a largely comprehensive list, it also provides an effective descriptive framework for Snakes – at least the kind of Snakes that the CF is may face.

<u>Snakes as Defined by the US</u>

A similar chart could not be found in US sources; however, a myriad of information exists on the threats to the US. The US National Security Strategies[90] of 2002, and 2006, bookend the National Defense Strategy (2005)[91] and the National Military Strategy (2004).[92] These documents identify the following types of challenges: Traditional, Irregular, Catastrophic, and Disruptive.[93] Although the traditional type of challenge is not necessarily germane to the discussion here, the remaining three are. Irregular challenges are defined as the increasingly sophisticated irregular methods, e.g. terrorism and insurgency, which challenge US security interests.[94] Catastrophic challenges refer to those hostile forces that

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[90] United States, The President, *The National Security Strategy of The United States, September 2002,* (Washington, DC: The White House, 2002). Available from http://www.whitehouse.gov/nsc/nss.html ; Internet, accessed 17 March 2006. In addition to: United States, The President, *The National Security Strategy of The United States, March 2006,* (Washington, DC: The White House, 2006). Available from http://www.whitehouse.gov/nsc/nss/2006/ ; Internet, accessed 17 March 2006.

[91] United States. Secretary of Defense. *The National Defense Strategy of The United States of America, March 2005.* Washington DC: Department of Defense, 2005. Available from http://www.defenselink.mil/news/Mar2005/d20050318nds1.pdf; Internet, accessed 17 March 2006.

[92] United States. Chairman of the Joint Chiefs of Staff. *The National Military Strategy of The United States of America, 2004.* Washington DC: Department of Defense, 2004. Available from http://www.defenselink.mil/news/Mar2005/d20050318nms.pdf ; Internet, accessed 17 March 2006.

[93] *The National Defense Strategy...,* 2-3. This particular reference provides the best descriptions of the four challenges; hence it will be referred to for this discussion.

[94] *Ibid.*

seek to acquire catastrophic capabilities, in particular weapons of mass destruction (WMD).[95] And finally, disruptive challenges are those rare instances where revolutionary technology and associated military innovation can fundamentally alter long-established concepts of warfare, including advances in biotechnology, cyber operations, space, or directed energy weapons.[96] Although comprehensive from a strategic point of view, it still does not provide the same degree of clarity as the previous model.

In order to provide additional clarity, the following national security threats were identified to the Senate Armed Services Committee by the Director of the Defense Intelligence Agency, Lieutenant-General Michael Maples, on 28 February 2006. The threats included: the Global War on Terrorism (GWOT), conflict in Iraq, conflict in Afghanistan, WMD, other states of concern (Iran, North Korea, Syria, China, Russia, Central Asian States, and Venezuela), as well as transnational issues – the issue of interest here. However, these transnational issues only included: other actors' Information Operations capabilities, "Ungoverned or Weakly Governed" states, international crime, natural disasters and pandemics, oil and water resources, global defence spending, and space.[97] Although the basics appear to be covered, the detail provided in the UK model is missing.

Armed with some appreciation of US and UK thoughts on the subject of Snakes, we will now turn our attention to the Canadian construct.

Canadian Thoughts on Snakes

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[95] *Ibid*.

[96] *Ibid.*

[97] United States, Senate Armed Services Committee, "Current and Projected national Security Threats to the United States." Statement for the Record by Michael D. Maples, Director, Defense Intelligence Agency, 28 February 2006. Available from http://armed-services.senate.gov/statemnt/2006/February/Maples%2002-28-06.pdf ; Internet, accessed 17 March 2006.

To begin, we should review some of the key national documents that frame and support the CF Vision. As a foundation, we have 2004 NSP, *Securing an Open Society: Canada's National Security Policy*. It identified the threats to Canada as follows:
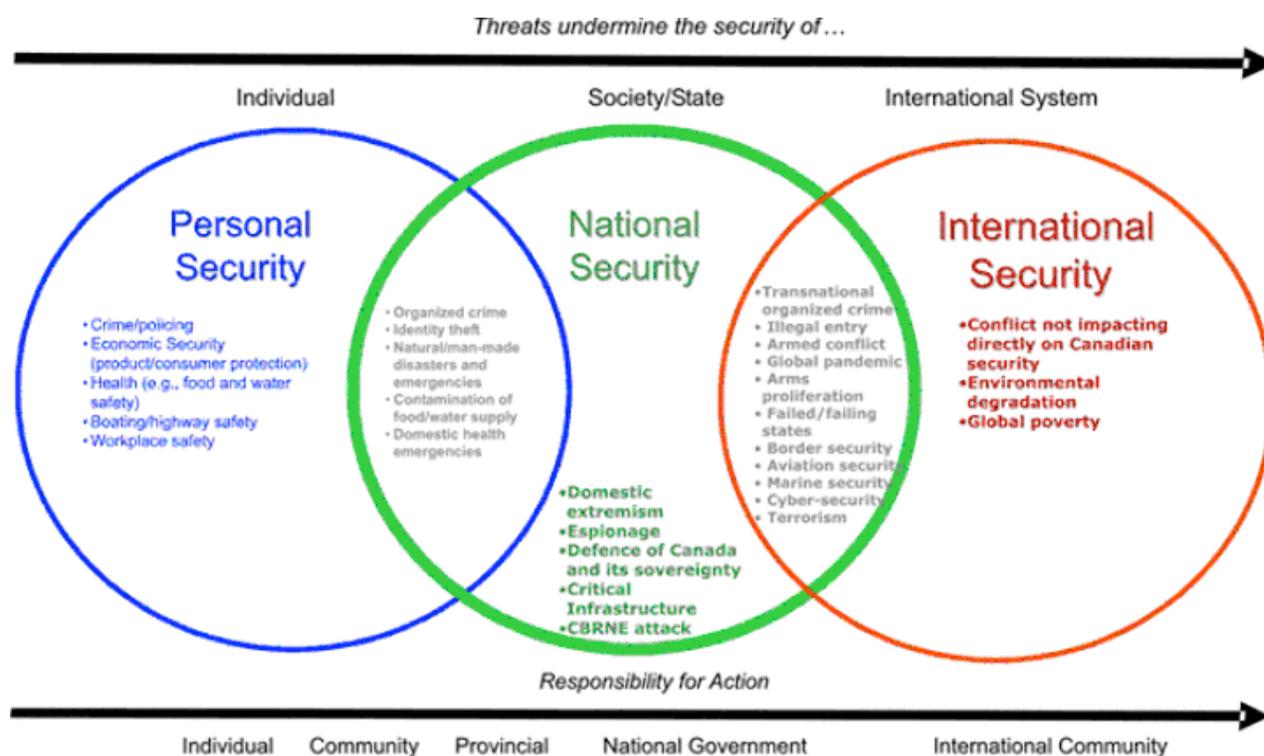

Figure 7 – 2004 Canadian National Security Policy Threat Chart[98]

Of significance vis-à-vis Snakes are the following elements from the National and International Security Circles: Domestic Extremism, Critical Infrastructure Attack, CBRNE Attack, Transnational Organized Crime, Armed Conflict, Arms Proliferation, Failed/Failing States, Aviation Security, Marine Security, Cyber-Security, Terrorism, and Conflict not Impacting Directly on Canadian Security. The NSP further accentuates the following current threats: terrorism, proliferation of WMD, failed and failing states, foreign espionage, natural disasters, crucial infrastructure vulnerability, organized crime, and pandemics. While both

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[98]Privy Council Office, *Securing an Open Society: Canada's National Security Policy,* (Ottawa: Privy Council Office, 2004), 4. Available from: http://www.pco-bcp.gc.ca/default.asp?Language=E&Page=Publications; Internet, accessed 13 March 2006.

lists are useful for a limited understanding of Snakes, they are certainly not exhaustive, and both fall closer to the US than the UK model. Consequently, something a little more definitive than the NSP is needed.

The IPS and DPS provide similar insights on the subject.   The IPS identifies the emergence of new threats to Canada as: "...rogue states, failed and fragile states, international criminal syndicates, weapons proliferation, and terrorists...."[99] and then provides two brief frameworks on how Canada will address terrorism, and failed and 'fragile' states. The DPS is not that much more detailed, giving the new Government a focus on failed and failing (different terminology) states, and identifying the following threats: failed and failing states, terrorism, WMD, and regional flashpoints[100] – the latter presumably capturing the rogue states identified in the IPS. One notable absence from the DPS is international criminal syndicates, which most certainly have a global reach and effect.

A brief review of other Department of National Defence publications provides a similar result. Whether it is the Policy Group's five *Strategic Assessments*[101] from 2000 to 2005, or Director General Strategic Plans *Future Security Environment* (2004),[102] the analysis is similar to that found in the IPS/DPS. There is no strategic-level threat breakdown like the one provided by the UK JDCC within the Canadian context at this time. Thus, the

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[99] Department of Foreign Affairs and International Trade, *Canada' International Policy Statement: A Role of Pride and Influence in the World – Overview* (Ottawa: Department of Foreign Affairs and International Trade, Enquiries Services, 2005) Foreword.

[100] Department of National Defence, *Canada's International Policy Statement: A Role of Pride and Influence in the World – Defence* (Ottawa: Department of National Defence, ADM (PA), 2005), 5-6.

[101] These documents are all available on line (less 2005 which will shortly be on the Site) at: Department of National Defence, "DND Policy Group: Strategic Analysis Documents." http://www.forces.gc.ca/admpol/eng/doc/str_e.htm; Internet, accessed 8 March 2006.

[102] Department of National Defence, "Future Security Environment 2025." Defence Planning and Management Reports and Publications. http://www.vcds.forces.gc.ca/dgsp/pubs/rep-pub/ord/fse2025/intro_e.asp; Internet, accessed 9 March 2006.

Department does not have a useful definition of Snakes that is any more specific than the one provided by the CF Vision. Therefore, a Snake definition is not only critical for CF Transformation, but for the Department as a whole.

<u>The CF's Snakes</u>

As demonstrated above, our requirement for a definition of Snakes still remains. Although some analysis has been done within Canada and by our Allies, it does not adequately address the situation. It may be more useful to work back from the geographical construct provided in the IPS and DPS – Canada, North America, and failed and failing states. Additionally, particular issues were raised in the preceding sections. It should be identified that these particular issues were raised, not so as to dismiss or make light of others, but simply to provide a focus for our primary effort. For example, the CF can do humanitarian operations, but it is not our raison d'être.

To note, this analysis will not include those actors defined by the US as traditional threats. They can be safely removed because, to the CF, these are Bears. The CF is gravitating away from Bears under the CF Vision and our Transformation, and although there will be a residual capacity to fight Bears, it is understood that this will be done in collective defence arrangements with our allies. We can remove the threat of conventional forces as they will be fought within an alliance, that is, with the US, our NATO partners or other like-minded nations.

Prior to undertaking a geographic analysis, we need to compile a list, and then remove those components that do not apply in a CF context. To start, we will take the whole list from the UK JDCC: Sectarians, Obsessionalists, Militarists, Profiteers, and Proliferators. From the Canadian and US lists we add: Terrorists, Extremists, and Spies (Espionage). The

terrorist dimension should also be added because this context includes the international networked component of terrorism, which I would note is not a tactic as suggested by previously cited authors, but is rather a Snake in its own right. We also need to clarify those particular Snakes that Canada faces. In addressing these Snakes, our current domestic situation as well as our conflict framework from Chapter I need to be taken into consideration. Canada faces challenges from domestic and international terrorists, although the CF domestic response in counterrorism is strictly controlled and mandated direct action only, through a civilian framework. The collection of intelligence, interdiction, and intervention of terrorists is a responsibility of the legal authorities in Canada. With other potential Snakes, there could be insurgents of the sectarian, extremist, and obsessionalist variety, and the CF would have a supporting role to the domestic legal authorities leading the response. The same is true for organized crime. And with the proliferators of information (espionage), of technology, and of weapons, they are challenges for Canada but again the CF takes a supporting role to the legal/civil authorities. The only Snakes that the CF must deal with in Canada are terrorists in a direct action role.

In considering our North American (Canada/US) role, the same would be true from above, but in a continental context. Terrorism, both continental and international, exists and would be dealt with through bilateral means. Insurgency, crime, proliferation and espionage still take place in varying forms and degrees but the CF would be in a supporting role. Again, the Snake that the CF would have to deal with is terrorism, with roughly the same mandated control over the use of the CF's counterrorism capabilities.

Failed and failing states are the last arena where we have to determine CF responsibility and capability within our Vision and Transformation. Clearly, the

international and local domestic terrorist threat exists within the purview of the CF, although once again there would be a legal construct governing CF involvement. More Snakes would be classified as insurgents, given their desire to operate outside of and against a recognized government. Once again, this would include the UK framework of sectarians, obsessionalists, and possibly militarists. The same comments can be said of the profiteers and proliferators, although the CF's role would once again be supporting that of an international civil/legal organization within the failed/failing state. The key difference this time, however, is the recognition of a different brand of Snake: those independent warlords and mercenary groups, which operate outside an insurgent/government relationship. And an additional recognition has to be made of the state forces and paramilitaries of the failed/failing state. For example, in peace support operations, the CF may deal with them as frequently as it deals with insurgents, warlords and mercenaries. Consequently, in reviewing our list of Snakes that the CF will need to deal with directly in failed and failing states, there are the following: terrorists, insurgents, warlords/mercenaries, and, potentially, state forces and paramilitaries.

Therefore, after considering possible threats in a Canadian, North American and failed/failing state context, those snakes upon which the CF would take direct action are: terrorists (international and domestic), insurgents, warlords/mercenaries, and state forces/paramilitaries.

<u>Where do these Snakes live?</u>

From the previous section we were able to narrow the focus from the "ball of snakes" described at the beginning of the Chapter from General Hillier and the "1,000" Snakes from Carns and Manwaring. The purpose of this section is to determine where Snakes live, in

order to provide depth to our overall definition of Snakes. In dealing with our Snakes'

habitats we look towards three locations where the Snakes can potentially be engaged by the

CF: Canada, the world, and failed and failing states.

The first location, Canada, should be immediately evident given the description

provided above. We know that there are international terrorist organizations operating in

Canada and we can reasonably expect that the potential for domestic terrorists exists as well.

But the common ground with respect to Snakes within Canada is the fact that the CF only

provides a supporting role to our domestic law enforcement authorities. This is not new in

our Vision or Transformation; the CF still holds the responsibility for direct action activities,

in support of civilian authorities, that are conducted in concert under the mantle of a national

counterterrorism program. The NSP, IPS, DPS and our Vision all refer to this continued role

for the CF and acknowledge that Canada is a potential habitat for these Snakes[103]. For all of

these reasons, above, it would be commonly recognized that we have Snakes that live in

Canada, or would conduct their activities in Canada in the future.

The second location is the world, as a whole, and this statement is not meant to be

sardonic. Terrorists exist worldwide, have an international and domestic character, and

operate in the global domain. The CF, through the counterterrorist capabilities it possesses

now and in the future, may be called to assist other national and international actors in

dealing with this terrorist threat. To illustrate this point, CF counter-terror assets are

deployed worldwide when our politicians, dignitaries, and even Olympic athletes travel. The

CF does not act alone or assume the lead agency role, during these activities. The point is

that the CF, to a limited degree, is involved in a global dimension to counter Snakes. The

second aspect of this global dimension is the CF capabilities that globally engage Snakes in the information realm of cyberspace. Once again, these assets are not acting alone, or as a lead agency, but they are acting in a global capacity, underscoring again that the CF does engage Snakes in a global context.

Finally, we turn our attention to failed and failing states, the third habitat where the CF will engage our Snakes. This particular dimension needs some further clarification since there is quite a degree of formal and informal discussion as to what a failed or failing state means and its role in providing habitats for Snakes. In order to facilitate the understanding of failed and failing states, this habitat will be established, followed by a usable definition of the habitat for our purposes.

Failed and failing states are recognized throughout CF guiding documents as a key area in which the CF will contribute to international peace and security. The NSP refers to "Canada leveraging peace, order and good government to help developing, failed and failing states," and notes that"(f)ailed and failing states can provide a haven for terrorists, which can pose risks to the security of Canadians."[104] Additionally, the NSP identifies failed and failing states as a current threat to international peace and security.[105] In addition to the NSP, the IPS and DPS provide significant attention to the requirement of the CF to be engaged with Snakes in failed and failing stakes, though it should be reinforced that the IPS often refers to the nomenclature as fragile, vice, failing states.[106] Additionally, the notion of failed and

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[103] For additional information refer to the following: *National Security Policy…*, 23-24, *International Policy Statement – Overview…*, 12., *International Policy Statement – Defence…*, 12-13., as well as Department of National Defence, *Setting Our Course...*Presentation Slides 8 and 14.
[104] *National Security Policy…*, xi, 6,

[105] *Ibid.*, 7, 50.

[106] Refer to the following documents: *International Policy Statement – Overview...*, 11-13. and *International Policy Statement – Defence...*, 11, 24.

failing states is reinforced several times throughout the CF Vision[107]. Therefore, the context created by our guiding documents and Vision, indicates that Canada will engage Snakes – terrorists, insurgents, warlords/mercenaries, and state militaries/paramilitaries – in failed and failing states.

<u>Failed and Failing States</u>

With the link established between the CF, Snakes, and failed and failing states, the question remains of what is a failed or failing state? The answer provided within academic circles and policy arenas is quite diverse. However a functional CF definition is offered below.

Although there is wide variation on the specific taxonomy of failed and failing states, to include such terms as "fragile" or "collapsed" in lieu of the two former, the definitions tend to agree that the underlying themes are a loss of security (personal, community, state), the degradation or collapse of state institutions that support the rule of law and guide normative behaviour, and finally the breakdown of public goods which the state provides (e.g. health care, civil infrastructure, communications, banking and commerce regulations).[108] From the literature, particularly Rotberg, failing states are those states that partially furnish their inhabitants with security, institutions, and public goods, while often failing to provide certain portions of these commodities at all. The implication is typically an erosion of government legitimacy, the start of public unrest, communal tensions, crime,

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[107] Department of National Defence, *Setting Our Course*...Presentation Slides 16, 17, 24, 27, 30.

[108] For a more comprehensive discussion refer to: Robert I. Rotberg, "Failed States in a World of Terror," *Foreign Affairs* 81, no. 4 (July/August 2002), 127-140 [journal on line]; available from http://search.epnet.com ; Internet, accessed 25 January 2006. and Kalevi Holsti, *The State, War, and the State of War* (Cambridge: Cambridge University Press, 1996), 82-122. as well as Jeffery Herbst, "Responding to State Failure in Africa," *International Security* 21, no. 3 (Winter 1996/97), 120-144 [journal on line]; available from http://proquest.umi.com; Internet, accessed 25 January 2006.

poverty, corruption and the neglect of critical infrastructure. However, unlike failed states,

failing states normally have not yet degraded into large scale violence in the form of civil

wars or insurgency.[109] On the other hand, failed states do not, or barely, provide the

aforementioned commodities. Typically legitimate authority is impotent or absent altogether,

violence, crime and poverty are widespread and the political, social, economic and natural

resource management systems are so chronically weak that the state remains in an ongoing

crisis.[110] Within our interpretation of failed and failings states – a prime Snake habitat –

three components are disrupted – security, institutions, and public goods. The degree to

which they are disrupted, will provide the failing or failed determination. Although much

more could be written on failed and failing states, the description above is sufficient for the

purposes of this paper. However, it should be noted that a failed or failing state's position on

a continuum of state power is not static. State power is dynamic and changes can be made

along the continuum for all states from both polar extremes.

We can now turn to the question of where failed and failing states are located, an

important consideration if the CF is to engage with Snakes in this habitat. The NSP, IPS and

DPS do not specifically deal with locations, although the CF Vision provides a map of the

world with the title of "International Non-Integrating Gap," which shows a belt of nations

highlighted across the map. A lecturer at the US Naval War College, Thomas Barnett,

detailed a "non-integrating gap" (or Gap) and a "functioning core" (Core), in a 2003 article in

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[109] This amplification relies on primarily Rotberg's influence *Ibid,* above. Although additional amplification was also obtained from an unreleased FAC document prepared by the Policy Research Division of Foreign Affairs Canada for the Deputy Ministers' Committee on Global Affairs, Fall 2005 as well as: The African Studies Centre, The (Leiden), The Transnational Institute (Amsterdam), The Center of Social Studies (Coimbra University), and The Peace Research Center (Madrid). *Failed and Collapsed States in the International System.* (n.p., 2003), 4, available from http://www.globalpolicy.org/nations/sovereign/failedindex.htm ; Internet, accessed 11 March 2006.

[110] *Ibid.*

Esquire titled, "The Pentagon's New Map."[111] He further elaborated upon these themes in

2004 with a much larger book by the same title. Briefly, Barnett's framework is based on the

benefits (or harms) of globalization. There are the set of nations within the functioning core

(Core) that are actively engaged and integrated into the global economy and adhere to

globalizations emerging rule set. The Core consists of: North America; Europe, Russia,

Japan, China and India (in degrees); Australian and New Zealand; South Africa; and

Argentina, Brazil and Chile.[112] The non-integrating gap (Gap) are those regions of the world

that are disconnected from globalization and is consists of: the Caribbean Rim; Africa; the

Balkans; the Caucasus; Central Asia; the Middle East; Southwest Asia; and most of

Southeast Asia.[113] When Barnett's thesis, which is much grander than the framework

presented here, is coupled to the CF Vision slide, the implication is that the CF will be

hunting Snakes in the Gap, which the Vision says is the domain of failed and failing states.[114]

    Foreign Policy developed a similar-looking map for "The Failed States Index" in

2005.[115] Not based on Barnett's framework, the magazine, in association with the Fund for

Peace, developed a set of criteria for evaluating failed and failing states. The criteria were

based on a number of indicators of instability: demographic pressures; refugees and

internally displaced persons; group grievances; human flight; uneven development; economic

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[111] This article is available from either *Esquire* or the author's own web site, refer to: Thomas, P.M. Barnett, "The Pentagon's New Map," *Esquire*. 139, no. 3 (March 2003), 174-182 [journal on-line]; available from http://search.epnet.com; Internet; accessed 9 March 2006. Or from the web site Thomas, P.M. Barnett, "Thomas P.M. Barnett." http://www.thomaspmbarnett.com/ ; Internet; accessed 9 March 2006.

[112] *Ibid.* Refer to both the article above and the author's web site for full details.

[113] *Ibid.*

[114] Department of National Defence, *Setting Our Course*...Presentation Slide 17.

[115] Foreign Policy and the Fund for Peace, "The Failed States Index" *Foreign Policy* 149 (July/August 2005): 56-65 [journal on-line] available from http://www.foreignpolicy.com/story/cms.php?story_id=3098 ; Internet; accessed 21 January 2006.

decline; delegalization of state; public services; human rights; security apparatus; factionalized elites; and external intervention. Recognizing that the World Bank has 30 "low income countries under stress," the UK Department for International Development has 46 "fragile" states, and the CIA has identified approximately 20 failing states, the authors of the *Foreign Policy* report ranked 60 nations – from the Ivory Coast (the "most failed at number 1) to Gambia (at number 60).[116]

Another degree of ranking these failed and failing states is provided by Freedom House in the US. Their "Map of Freedom" for 2005, also resembles the maps drawn by Barnett and *Foreign Policy*/Fund for Peace. Using neither Barnett's Gap/Core analogy or the 12 indicators of instability from the Failed States Index above, Freedom House employs a survey approach via multi-layered analysis from regional experts and scholars. Though intellectual rigour and balanced judgements, the survey rates the real-world rights and freedoms enjoyed by individuals and does not rate governments or their performance, or the affects of non-state actors as well.[117] The interesting point here is the degree to which the maps overlap, despite their different analytical starting points.

By way of comparison, the three maps are provided below:

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[116] *Ibid.*, 58-59.

[117] Full details on the "Map of Freedom" and survey methodology can be found at the web site: Freedom House, "Freedom House" http://www.freedomhouse.org/template.cfm?page=1; Internet; accessed 21 January 2006.

Figure 8 – Map Number 1: Barnett's Non-Integrated Gap[118]

THE FAILED STATES INDEX
www.foreignpolicy.com

Critical
In danger
Borderline
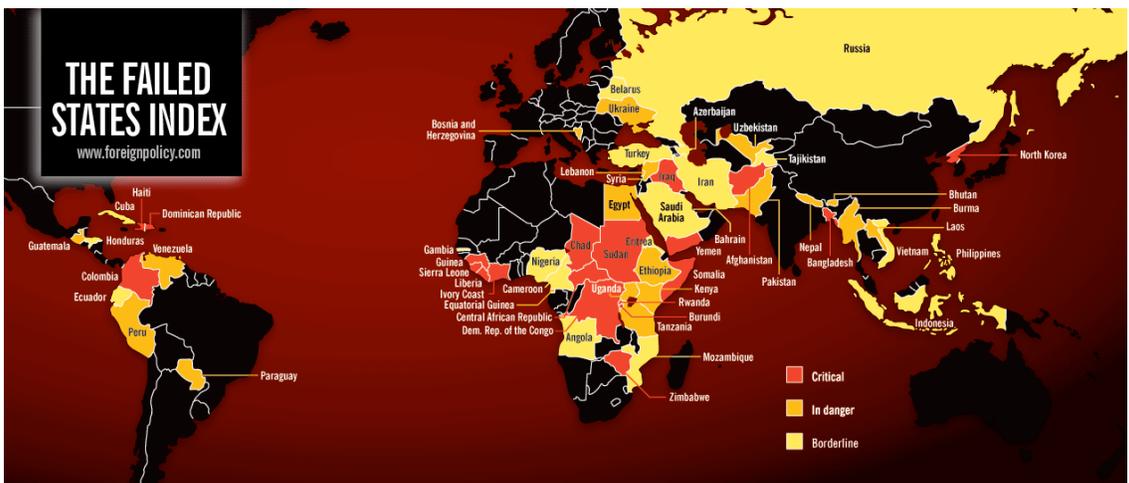
Figure 9 – Map Number 2: "The Failed States Index"[119]

[118] Thomas P. M. Barnett, "Thomas P.M. Barnett." http://www.thomaspmbarnett.com/ ; Internet; accessed 9 March 2006.

[119] Foreign Policy and the Fund for Peace, "The Failed States Index." *Foreign Policy* 149 (July/August 2005): 56-65, [journal on-line] available from http://www.foreignpolicy.com/story/cms.php?story_id=3098 ; Internet; accessed 21 January 2006.

Map of Freedom 2005

Map Legend | Free | Partly Free | Not Free

http://www.freedomhouse.org/template.cfm?page=15&year=2005
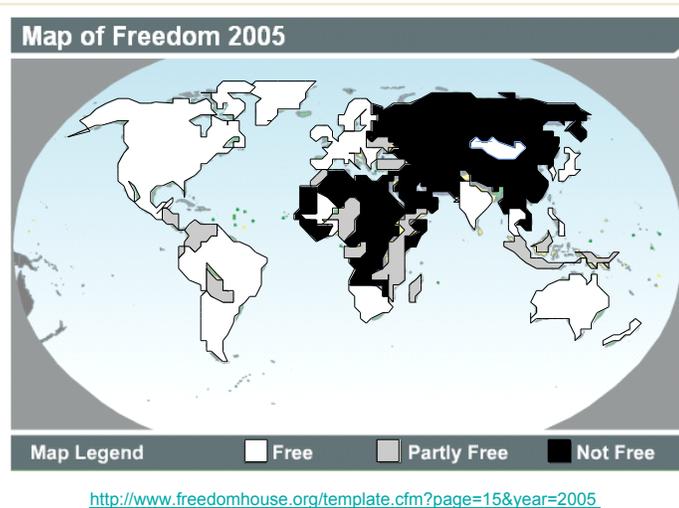
Figure 10 – Map Number 3: "The Map of Freedom 2005"[120]

To conclude, we have been able to define a number of key points. First, given the guidance in the NPS, IPS and DPS, the CF will respond to the Snakes that Canada is concerned about – terrorists, insurgents, warlords/mercenaries, state militaries and paramilitaries – in three main arenas; that is, in Canada, North America, and abroad. Second, the CF will face all four types of Snakes in failing and failed states. In defining these kinds of states, we determined that they exist due to deficiencies in security, institutions, and public goods. And finally, in general, failed and failing states can be found in those regions defined as the Gap by Barnett that rank on the *Foreign Policy/*Fund for Peace Failed States Index, or make it to Freedom House's Map of Freedom. This is where the CF is most likely to engage the Snakes.

Further Snake Definitions – what, why and how:
Terrorists, Insurgents, Warlords/Mercenaries, and State/Paramilitaries

In the previous sections we have defined the "who" and "where" of Snakes. This section will briefly cover the additional "what", "why", and "how" of the Snakes that the CF

needs to be concerned with: terrorists, insurgents, warlords/mercenaries; and state/paramilitaries. With only limited scope in this paper to cover such a large topic, only that information required to further define the Snake will be provided. Therefore, this section will focus on the distinctive qualities that make each of these Snakes what they are, rather than the similarities between them.

Terrorists

A recent US DoD publication officially defined terrorism as: "The calculated use of unlawful violence or threat of unlawful violence to inculcate fear; intended to coerce or to intimidate governments or societies in the pursuit of goals that are generally political, religious, or ideological."[121] The same publication (2004) acknowledged that in the present context, Bruce Hoffman, a terrorism expert, has identified up to 109 current definitions for terrorism.[122] These definitions range include those with a political, military, legal, or theoretical bias. For example, an official DND definition from June 2001 states:

> ...terrorism consists of acts of serious violence, planned and executed
> clandestinely, and committed with clear intention to achieve political ends;
> it is frequently compounded by the threat of further violence, primarily to
> communicate demands and to gain publicity, and to distort, intimidate and
> disrupt; and to realize these goals, a terrorist act may involve one or more
> targets – the target(s) of violence, the target(s) of demands, and those
> persons to be sensitised and thereby converted to the terrorist cause.[123]

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[120] Freedom House. "Freedom House." http://www.freedomhouse.org/template.cfm?page=1; Internet; accessed 21 January 2006.

[121] United States, Department of Defense, *A Military Guide to Terrorism in the Twenty-First Century, Version 2.0.* (Fort Leavenworth, KS: US Army Training and Doctrine Command, 2004), '1-3'.

[122] *Ibid.*

[123]Department of National Defence, *The Terrorist Threat, by N.A. Kellett, Policy Report No. 2001/11* (Ottawa: Department of National Defence, ADM (Pol), 2001), 2. It should be acknowledged that the definition was borrowed from a previous report by the same author, working in committee for the Solicitor General of Canada in 1991.

Other authors point out that: "Terrorism is not a movement or an ideology, but a military tactic. A terrorist is someone who employs physical or psychological violence against non-combatants in an attempt to coerce, control, or simply change a political situation by causing terror in the general populace."[124]

In 2002 Hoffman, identified a "new" terrorism based on the events up to, and including, September 11th. The old form was defined as a collection of individuals belonging to a well defined command and control apparatus, engaged full-time, living "underground", constantly plotting, planning and conducting terrorist attacks, sometimes at the behest of a foreign government.[125] The new form consists of a variety of "entities" with fewer nationalist or ideological motivations. The new generation of terrorist groups embrace far more amorphous religious (and often millenarian) aims and are far less cohesive entities, with a diffuse structure and membership. Thus, the emergence of obscure, idiosyncratic millenarian movements or zealously nationalist religious groups represents a different and potentially more lethal threat than the old form.[126] While acknowledging that religion and terrorism are nothing new, Hoffman explains that religious terrorism tends to be more lethal than secular terrorism because of the different value systems, mechanisms of legitimization and justification, concepts of morality, and Manichean world view that directly affect a "holy" terrorist's motivation.[127]

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[124] Bruce Schneider, *Beyond Fear: Thinking Sensibly About Security in an Uncertain World.* (New York: Copernicus Books, 2003), 69.

[125] Bruce Hoffman, *Lessons of 9/11. Testimony submitted for the Committee Record to the Unites States Joint September 11, 2001 Inquiry Staff of the House and Senate Select Committees on Intelligence on October 8, 2002* (Santa Monica, CA: RAND, 2002), 2. Available from http://www.rand.org/pubs/testimonies/2005/CT201.pdf ; Interned; accessed 10 March 2006.

[126] *Ibid.*

[127] *Ibid.*, 3-4.

Hoffman was not alone in this recognition of an emergence of religious terrorism. DND documents[128] from 2003 onward point to a rise in global jihadism and reflect Hoffman's basic premise, noted above. Any number of contemporary US sources – governmental, academic, or corporate (e.g. RAND) – provide similar assessments on the increased volatility, dispersed networked, and extreme commitment driven under a jihadist banner, one in which al-Qaeda plays a leading role in, but where a whole host of diverse and disparate actors reside globally.

In sum, four essential points should inform our understanding of terrorism.[129] First, terrorism has a political nature. Second, it is distinguished by its non-state and networked character. Third, it deliberately targets innocent people. And finally, terrorism does not abide by international laws or norms. In fact to maximize the impact of an attack, its activities have a deliberately unpredictable quality. Audrey Cronin sums up the definition as: "The surprise threat or use of seemingly random violence against innocents for political ends by a [networked,] nonstate actor."[130]

<u>Insurgents</u>

The definition of insurgency also brings a plethora of definitions. What makes the insurgent different from the terrorist must be addressed, but we will first consider some of the conventional definitions of insurgency.

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[128]Refer to the following sources: Department of National Defence. *Compendium of Global Jihadism 2003, by N.A. Kellett and S.E. Speed, Project Report 2003/07* (Ottawa: Department of National Defence, ADM (Pol), 2003). In addition to the *Strategic Assessments* from 2003 to 2005 available in e-format at the following web site: Department of National Defence. "DND Policy Group: Strategic Analysis Documents." http://www.forces.gc.ca/admpol/eng/doc/str_e.htm; Internet, accessed 8 March 2006.

[129]Audrey Kurth Cronin, "Introduction: Meeting and Managing the Threat." in *Attacking Terrorism: Elements of a Grand Strategy,* ed. Audrey Kurth Cronin and James M. Ludes, 1-16 (Washington, DC: Georgetown University Press, 2004), 3-4. The four points are hers, with the exception of my addition of "networked" in point number two.

Perhaps one of the best military resources with respect to Insurgency and

Counterinsurgency comes from the British Army. *Army Field Manual Volume V –*

Operations Other Than War, Counter Insurgency Operations,[131] is a two-part series of

manuals published in 1995. Drawing on well over 100 years of counterinsurgent campaigns,

the first part offers this definition:

> ...the actions of a minority group within a state who are intent on forcing
> political change by means of a mixture of subversion, propaganda and
> military pressure, aiming to persuade or intimidate the broad mass of
> people to accept such a change. It is an organized armed political
> struggle, the goals of which may be diverse.[132]

The publication also suggests that some insurgencies aim for a complete revolutionary

takeover, while others attempt to break away and establish an autonomous state within

traditional ethnic or religious bounds. In some instances, an insurgency may strive to extract

wide-ranging political concessions which are unattainable through less violent means.[133]

Further, insurgencies tend to arise when state authorities are unable or unwilling to redress

the demands of significant social groups. As a result, insurgencies can be coalitions of

disparate forces sometime united by a common antagonism towards the government, and

challenge its legitimacy.[134] Today, the proliferation or arms, the potential availability of

WMD, along with the exploitation of the media increase the potency of the insurgent's

arsenal and the threat posed to the state. Thus, while the overall authority of the state may

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[130] *Ibid.*, 4. With the same note that "networked" is my addition.

[131] United Kingdom. Ministry of Defence. *Army Field Manual Volume V – Operations Other Than War, Counter Insurgency Operations, Part 1 &2 (Army Code No 71596 Parts 1&2).* London: Ministry of Defence, 1995. Available from http://barker.cfcacad.net/Admin/jointdocs/britpubs/coin1-2.pdf ; CFC Intranet, accessed 15 March 2006.

[132] *Ibid.*, 1-1.

[133] *Ibid.*

[134] *Ibid.*

not be at risk, its ability to handle the potential disruption imposed by these new issues could

have a destabilising effect.[135]

Nine years later, the US Army produced a comparable, if not less comprehensive and

complete, manual as the British one. The definition from *Counterinsurgency Operations*

incorporates a portion of the US Joint doctrine definition, yet provides amplifying detail:

> An *insurgency* is organized movement aimed at the overthrow of a
> constituted government through se of subversion and armed conflict (JP 1-
> 02). It is a protracted politico-military struggle designed to weaken
> government control and legitimacy while increasing insurgent control.
> Political power is the central issue in an insurgency.[136]

The US account emphasizes similar trends as identified in the UK manuals, but notes that

insurgencies are unique to the objectives, environment, resources, methods and tactics

employed of a particular insurgent group. In addition, an equivalent definition and

explanation are provided in the parent document of the series, *Stability Operations and*

Support Operations (2003).[137]

Insurgents are represented in a related manner outside of formal government

documentation. John Nagl, a US Army officer who served in Iraq, wrote a seminal work

which has become standard reading within the US military; *Counterinsurgency Lessons*

From Malaya and Vietnam: Learning to Eat Soup with a Knife.[138] He published a second

edition in 2005 after having served in Iraq. Without specifically tying himself to a definition,

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[135] *Ibid.*

[136] United States, Department of the Army, *Counterinsurgency Operations: Field Manual (Interim) No. FMI 3-07.22* (Washington, DC: Headquarters, Department of the Army, 2004), 1-1. Available from http://www.fas.org/irp/doddir/army/fmi3-07-22.pdf ; Internet; accessed 13 March 2006.

[137] United States, Department of the Army, *Stability Operations and Support Operations: Field Manual No. FM 3-0* (Washington, DC: Headquarters, Department of the Army, 2003), 3-3 to 3-7. Available from http://www.globalsecurity.org/military/library/policy/army/fm/3-07/fm3-07.pdf; Internet; accessed 11 March 2006.

Nagl characterizes an insurgency as a special kind of revolutionary war, not unlike Hammes

in his 4GW+ from Chapter 1. He identifies the political component, the motivation of a

group among the populace, the proliferation of arms, the increased role of the media.[139]

Additionally, Nagl underscores the insurgent's ability to fight autonomously in small groups

and keep the fighting going despite setbacks with other autonomous groups. And much like

van Creveld, Lind, and Hammes, Nagl makes the connection that Clausewitz's Trinitarian

war has been broken apart, and the people (i.e. the insurgents) have broken the monopoly on

state power.[140]

Another work that offers additional comments comes from Bard O'Neill in 1990.

Although written with slightly different terminology, he highlights the same insurgent

characteristics as the works above, although he identifies the use of terrorism and guerrilla

warfare as the methods of the insurgent.[141] O'Neill's significant contribution to the topic,

however, is his rather important point that the difference between the terrorist and the

insurgent is their targets. The insurgent's "...primary targets are the government's armed

forces, police, or their support units and, in some cases, key economic targets, rather than

unarmed civilians."[142] Although they may engage civilians in order to coerce and instil

discipline, it is not the abject terror sought by the terrorist.

In summation, the distinctive characteristics of the insurgent can be outlined as

follows. First, the insurgent's aims are to seize political power. Second, the insurgent's

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[138] John A. Nagl, *Counterinsurgency Lessons from Malaya and Vietnam: Learning to Eat Soup with a Knife,* (Westport, CT: Praeger Publications, 2002).

[139] *Ibid.*, 24-25.

[140] *Ibid.*

[141] Bard O'Neill, *Insurgency & Terrorism: Inside Modern Revolutionary Warfare* (Dulles, VA: Brassey's, 1990), 24-25.

actions are subversion, propaganda, and military pressure aimed at forcing a political change. Third, the insurgent is enabled by the proliferation of arms, potential access and threat, or use, of WMD, and the exploitation of mass media. Fourth, it may be networked, with insurgent groups or coalitions banding together in order to fight a common enemy: the state. And finally, the target of the insurgent is the state's military and security power, to include infrastructure that supports or symbolizes that power. The two significant differences between insurgency and terrorism are: the target (people in terrorism, state in insurgency); and the role of politics – in terrorism, the acts are political messages; in insurgency the acts are meant to secure political power.

Warlords/Mercenaries.

The next two sections will deal briefly with warlords and mercenaries, as well as state and paramilitary forces. They will not examine each issue with the same detail as the preceding sections because the CF will not likely engage with these kinds of Snakes (although these Snakes will certainly exist in the failed and failing states in which the CF engages) and because the terms associated with these Snakes are more commonly understood that those used in reference to terrorism and insurgency.

Warlords are an interesting and dangerous type of Snake. Quite common in failed and failing states, they are; "...the embodiment of the rule of the criminal gang, cartel and criminal free-state."[143] Warlords rely on armed force to wield their will and are supported in this by the usurpation of the rule of law. Commonly they depend on criminal support such as arms, drug or human trafficking, extortion, and an underground economy in order to ensure

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[142] *Ibid.*, 26
[143] John P Sullivan and Robert J. Bunker, "Drug Cartels, Street Gangs, and Warlords." In *Non-State Threats and Future Wars,* ed. Robert J. Bunker, 40-53. (London: Frank Cass and Company Ltd, 2003), 50.

their reach.[144] At times they are connected to criminal organizations or clans, at other times they may depend on these other players for their survival. Warlords are not all the same, and will differ in their degree of power, authority, reach and military prowess.[145] Understanding these Snakes is extremely important since they will likely be in their natural habitat – the failed and failing states where the CF will be deployed, and they will most likely have connections with the terrorists or insurgents that we will be dealing with.[146]

Mercenaries are the second type of non-state Snakes that the CF will encounter. This variety of Snake comes in two forms; and 'old' style, and a 'new' one. Old style mercenaries are those "colourful adventurers" who are "...more or less *ad hoc* collections of former soldiers who provided experience, leadership, small arms and an occasional armoured car. Their organizations were as ephemeral as the causes they fought for [original emphasis]."[147]

Thomas Adams highlights the difference between the old mercenary and the new by referring to the 1977 Protocol to the Geneva Convention where a mercenary is defined as; "…one who is motivated essentially by the desire for private gain and is promised material compensation substantially in excess of that promised or paid to combatants in the armed forces of that party."[148] In contrast, the new mercenaries are big business. They are unlike traditional security firms that provide guards, watchmen and technical systems. Instead these new mercenaries bring military methods, leadership, and specialized equipment in addition to traditional security services. Normally staffed with senior, retired military officers, some

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[144] *Ibid.*, 51.
[145] *Ibid.*

[146] For additional reading on the subject of warlords, refer to a series of articles provided in: Paul B. Rich, Editor *Warlords in International Relations.* London: Macmillan, 1999.

[147] Thomas K. Adams, "Private Military Companies: Mercenaries for the 21st Century." In *Non-State Threats and Future Wars,* ed. Robert J. Bunker, 54-67. (London: Frank Cass and Company Ltd, 2003), 56.

firms provide specialized services while others provide a wide range of military related functions. Given that the term 'mercenary' has such negative connotations; they refer to themselves as private military companies (PMC) or private security companies (PSC).[149]

Two important points are apparent in discussing mercenaries, whether they are of the old or new variety. First, the reality is that they will be actors in failed and failing states. Second, they may act as Snakes against the CF or they may support the CF. The CF may find itself positioned against traditional mercenaries in the support of terrorists, insurgents, or warlords. Yet at the same time it may find itself benefiting from the new form of mercenaries either through benefits provided by them while they are under contract of our military allies or from direct contracting of their services for our own advantage. Additionally, there has been an explosive growth of these new mercenaries supporting humanitarian non-governmental agencies in failed and failing states.[150] The bottom line is that the CF will encounter both forms of mercenaries, some may be dangerous Snakes and some may prove to be friends.

Warlords and mercenaries should be considered a fact of life in failed and failing states. Both of these forms of non-state actors may be integrated or aligned with terrorists and insurgents, and in the case of new mercenaries, they may not necessarily be a Snake. Equally, just as the new mercenaries may be the CF's friend or ally against Snakes, we may find that we have the help, or need the help, of the warlords or mercenary Snake to achieve our ends overseas.

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[148] *Ibid.*, 56.
[149] *Ibid.*

[150] For a contemporary review of this growing phenomenon refer to: Christopher Spearin, "Humanitarians and Mercenaries: Partners in Security Governance?" In *New Threats and New Actors in International Security*, ed. Elke Krahmann, 45-65. (New York: Palgrave Macmillan, 2005).

<u>State Forces/Paramilitaries.</u>

This form of Snake is the most commonly understood of all. In actuality, the CF has been engaged with these types of Snakes since our early years in traditional peacekeeping missions and these forces still exist today in failed and failing states as either legitimate or unlawful actors. An excellent taxonomy of these Snakes was provided by Morris Janowitz, and they can be broken down into: regular military forces; paramilitary forces; and police forces.[151] Regular military forces are divided into active duty and reserve forces. The latter consists of standby, organized, and militia forces. Paramilitaries include militarized national police forces, local defence units, and workers' militias. And finally there are local police forces.[152] Like the mercenaries described in the previous section, state forces and paramilitaries may be supportive of the CF or they may be opposed and linked with terrorists, insurgents or warlords. In the latter case, there is little distinction between this form of Snake and the others, with the exception that they would likely possess some form of legitimacy, even if usurped. Their real distinction would be as a state actor. It is also likely that this variant of Snake would typically organize and fight the CF in a recognizable, perhaps even conventional, fashion which would not be the case with terrorists, insurgents or warlords. Therefore, when considering state forces and paramilitaries, two characteristics are most relevant to our discussion. First, they may or may not be Snakes, given the situation (and the situation can change). And second, the CF will find them in failed and failing states previously identified in this chapter and outlined in the various maps, just like all the other previously discussed Snakes.

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[151] As quoted in: Louis A. Zurcher and Gwyn Harries-Jenkins, ed. *Supplementary Military Forces: Reserves, Militias, and Auxiliaries* (Beverly Hills, CA: Sage Publications Inc., 1978), 11-12.

[152] *Ibid.*

A useable definition of Snakes for the CF.

This chapter set out to describe a working definition of Snakes, that is, those Snakes from General Hillier's ball of snakes that the CF sees as a threat, which can be dealt with by military means, and where it will likely play the lead role when engaging these Snakes. In reviewing a variety of sources, including DND/CF guiding documents, we have concluded that four very specific and dangerous varieties exist: terrorists, insurgents, warlords and mercenaries, and state forces and extremist paramilitaries. We have also determined where the Snakes live, predominantly in failed and failing states although terrorists also have a global (and home-grown domestic) feature as well. In further assessing our four Snakes, we have considered the what, why and how of each variety, paying closer attention to the terrorists and insurgents because they have become increasingly numerous and they are a relatively new threat for us to encounter on our missions at home and abroad. That is not to imply that all four are not equally lethal; they all deserve attention and a thorough understanding. Consequently, through this chapter we have reduced the ambiguity on Snakes from "1,000" down to four and have provided a definition that can help to empower the CF Vision and achieve Transformation.

As long as the insurgent has failed to build a powerful regular army, the counterinsurgent has little use for heavy, sophisticated forces designed for conventional warfare.
Thus, a mimeograph machine may turn out to be more useful than a machine gun, a soldier trained as a paediatrician more important than a mortar expert, cement more wanted than barbed wire, clerks more in demand than riflemen.[153]
David Galula, Counterinsurgency Warfare, 1964.

CHAPTER III

TRANSFORMING THE CF TO HUNT SNAKES WITH A SNAKE GUN

The previous two chapters explored the changed nature of the conflicts in which the CF will find itself (and is finding itself today), and the changed nature of the combatants it will (and is) facing, as well as where the CF will most likely encounter these combatants. Given these changed circumstances, this chapter will pose the key questions and identify the significant issues that must be reconciled within the CF in order for Transformation to proceed well. The intent is not to provide answers or specific directions – something well beyond the scope and timeframe of this paper. Rather, it is to distinguish and identify those key areas in which the CF must concentrate in order to ensure that it does not inadvertently end up hunting Snakes with its existing Bear guns. Also, it should be acknowledged that the question to be considered here is not whether we would need a Bear gun in the future. Instead, it is to acknowledge that we now have to deal with Snakes and that we have to fight them with an organized force – one that may not necessarily work well if it is structured and equipped to deal with Bears.

To accomplish our work in an orderly fashion, we will consider the questions and issues arising from Transformation in four general categories – joint operations, interagency coordination, multinational cooperation and public considerations (including non-

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[153] David Galula, Counterinsurgency *Warfare,* (New York: Praeger, 1964), 93-94.

governmental organizations). To guide our way through these categories, this paper will use the CF's capability framework known as PRICIE (Personnel, Research and Development, Concepts, Doctrine and Collective Training, Information Technology, and Equipment [Supplies and Services]) as a general roadmap, using its elements where applicable to help identify key questions and areas of concern. PRICIE is useful because it is usually applied in a capability development process in order to identify challenges associated with the required capability, and it falls along well understood functional lines of operation within the CF.

Joint Operations

As Chapter II identified, we are likely to encounter the specific snakes of terrorists, insurgents, warlords and mercenaries, and state forces and paramilitaries in (or possibly from) failed and failing states. The CF needs to address what skills and capabilities it will need to successfully face such combatants in such circumstances.

Personnel issues within the CF will be significant in order to adjust its capacity to deal with Snakes and such issues generally fall within two major categories: the numbers of personnel and training. First, an increase in the numbers of personnel who will be committed to dealing with the Snakes is very likely to be needed. Such increases will be required in the operational section of the CF, within the land, maritime, air and special forces environments, and can be achieved by the following methods: rebalancing of personnel within the CF; increasing the size of the CF; or a combination of the two. Notwithstanding public announcements to increase the size of special operations forces (SOF) within the CF, there still needs to be an increase within the operational forces. David Galula's work from 1964 is particularly instructive:

> The numerical strength of the armed forces in relation to the size and
> population of the country [are important in insurgency and stability

operations]. An insurgency is a two-dimensional war fought for the control of the population. There is no front, no safe rear. No area, no significant segment of the population can be abandoned for long – unless the population can be trusted to defend itself. This is why a ration of force of ten or twenty to one between the counterinsurgent and the insurgent is not uncommon when the insurgency develops into guerrilla warfare.[154]

This increase needs to occur with those operational forces that will be applied to both counter-terror and counterinsurgency operations to combat Snakes, in particular SOF and the Army. Dramatic changes are occurring with our US and UK allies in dealing with this issue, for example, increases in SOF personnel and a reallocation of army personnel to infantry, civil affairs, intelligence and military police roles, as well as increases in air force combat support.[155] At this point, it is likely too early in the CF Transformation process to determine exactly where the CF should undertake a personnel shift. However, it is important for the CF leadership (and political leadership) to recognize that an increase is necessary. In considering growth, the announced 5,000 regular force, and 3,000 reserve force positions from late 2004 as well as any intended 2006 announcements need to be considered as a key component in this overall issue.[156]

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[154] Galula, Counterinsurgency *Warfare,* 32.

[155] For additional information refer to the following: Thomas X. Hammes, "Dealing With Uncertainty." And: William S. Lind, "Understanding Fourth Generation War." As well as: Tammy S. Schultz, "Where is the Lone Ranger When We need Him? America's Search for a Postconflict Stability Force," *SAIS Review* 24, no. 2 (Summer 2004) [journal on line]; available from http://proquest.umi.com; Internet, accessed 10 March 2006. In addition: Martin Van Creveld, "Through a Glass, Darkly: Some reflections on the Future of War." *Naval War College Review* 53, no. 4 (Autumn 2000) [journal on line]; available from http://proquest.umi.com; Internet, accessed 26 February 2006. And: Bruce R. Nardulli, "A Future of Sustained Ground Operations." Rand Review 2002 http://www.rand.org/publications/randreview/issues/rr.08.02/groundops.html; Internet, accessed 10 March 2006. Finally: Edward R. Harshberger, "Global Implications for the U.S. Air Force." Rand Review 2002 http://www.rand.org/publications/randreview/issues/rr.08.02/global.html; Internet, accessed 10 March 2006. A recent criticism of the US failure to implement necessary changes can be found at: Paul D. Eaton. "A Top-Down Review of the Pentagon." *New York Times*, 19 March 2006, 4.12. Available from http://www.proquest.umi.com; Internet, accessed 23 March 2006.

[156] Department of National Defence, *Canada's International Policy Statement: A Role of Pride and Influence in the World – Defence*, 14-15.

Second, personnel training must be a key consideration. Individual training has a multitude of separate demands. For example, the CF Vision and the DPS both identify Canada (and North America) as a theatre of operations[157], as such we should expect that some "common" core soldier skills be prevalent among all member of the CF, in the event that they are required to confront certain Snakes within Canada or North America as a whole. For one not well versed in CF individual training this point may not be immediately apparent. However, for those well acquainted with the subject, there is a dearth of common core soldier skills across the CF, outside of some specific trades, required to respond to a Snake in Canada. This includes those personnel who could fulfil functions like those normally performed at checkpoints, or by base defence/security forces during a period of heightened warning level. This comment is even more valid for those operational theatres beyond Canada where our interaction with Snakes is likely. The CF needs to improve common individual skills.

In addition to core common skills for all CF members, more skills are required by those trades engaging in new areas. Although the SOF component and its counterterrorism role is easily understood, counterinsurgency and other anti-Snake training are not well understood, not only across the CF, but within the Army in particular. This training needs to be identified, incorporated into our training system, and adopted for those who are doing to specifically deal with Snakes.

Equally, given the forms of asymmetric warfare and 4GW+ as outlined in Chapter 1, leadership training given across the CF needs to be changed. Once again, it needs to contain not only a common core of leadership training, but also additional, specialized training for

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[157] *Ibid.*, 18. and Department of National Defence, *Setting Our Course*...Presentation Slides 8 and 14.

those who are going to deal with these Snakes. At present, this particular aspect of training is not being addressed within the CF.

Thus, from within the personnel component of PRICIE as it pertains to joint operations, two significant areas need further study and resolution.[158] First, the CF must satisfy the personnel numbers that will be required of Snake hunting, whether from rebalancing of the CF, expanding it, or a combination of the two. Second, the individual training aspects must be improved. They fall into three primary areas: core skills that are common to all, specialized skills that are required by specific role and trade, and leadership training at the requisite level and trade. All this training must recognize and address the fact that the CF is transforming to fight Snakes.

The research and development (R&D) and operational research (OR) component of PRICIE is important since scientific investigation and technical innovation will produce key enablers in our engagement of Snakes. Key to this will be recognition of the new threat and an orientation of our R&D and OR efforts in that direction. Since both of these efforts fall under the purview of Assistant Deputy Minister, Science and Technology – ADM(S&T) – which falls outside the CF, there will need to be a recognition during DND's institutional realignment for new direction to ADM(S&T)'s R&D efforts. Additionally, the OR experience gained the CF, as well as our allies, during such activities as the International Security Assistance Force (ISAF), Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) should be leveraged. Both R&D and OR support are required of those capability initiatives that come through the force development and capability development processes aimed at engaging Snakes. Such efforts should be focussed on addressing Snakes,

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[158] Additional information on the necessity of such training can be found at: Thomas X. Hammes, "Dealing With Uncertainty." As well as: Ivan Arreguin-Toft, *How the Weak win Wars,* 226.

and should not continue under an assumption that Bears remain the CF's main operational challenge.

With respect to infrastructure changes, the CF should recognize those elements of infrastructure that are susceptible to attack from the Snakes, and address them through appropriate risk mitigation strategies. This is not only true for CF infrastructure overseas, in failed and failing states and worldwide locations where the CF is deployed, but also in Canada and North America. While it is likely impossible to secure our infrastructure completely from Snakes, and financially it is likely too expensive, our critical infrastructure should be protected or safeguarded with appropriate measures. The CF should explore what options are available to it and weigh what is reasonable to do at what cost. Additionally, the creation of new and the amalgamation/destruction of old infrastructure would require similar study along with the risk identified above. The bottom line is that our physical infrastructure should be reviewed given the current threat from Snakes, and measures to mitigate risk should be implemented.

However, organization is a very different matter. The CF will likely require significant organizational restructure in order to combat Snakes. Another piece from Galula's work is insightful:

> A conventional war today requires a modern, well-balanced force, with its air, sea, and ground components. But a revolutionary war is primarily a war of infantry. Paradoxically, the less sophisticated the counterinsurgent forces, the better they are. France's NATO divisions were useless in Algeria; their modern equipment had to be left behind, and highly specialized engineer or signal units had to be hurriedly converted into ordinary infantry. Naval operations by the insurgent being unlikely, all a navy need is a sufficient force to blockade the coast line effectively. As for an air force, whose supremacy the insurgent cannot challenge, what it needs are slow assault fighters, short take-off transport planes, and helicopters.[159]

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[159] Galula, *Counterinsurgency Warfare,* 32.

While not strictly adhering to Galula's historical case, the CF Vision and DPS provide the foundation for similar organizational changes in order to address Snakes. While the DPS does not specifically provide those organizational changes, Transformation should recognize the significant amount of work required to structure organizations differently to engage Snakes. Equally, these organizational changes will apply across all four environments: land, maritime, air, and SOF. Emphasis on where organizational change is to occur will be required from the CDS based on recommendations from the force development system. While currently, force development remains the responsibility of the Environmental Commands, the implications of huge organizational impact (to include growth, re-roleing, reduction or removal of certain components of the CF) makes this an issue that cannot reside solely with the Environments. A centralized force development agency within the CF is one option that the CF leadership should seriously consider.

The organizational component of our Transformation will ultimately be the largest piece. Capabilities and organizations are inextricably linked. To fully address the capabilities required of the CF to hunt Snakes, there will necessarily be a requirement to conduct organizational change, and this change will be significant because the capabilities demanded for Snakes are not necessarily those required for Bears. Growth, re-role, reduction and removal are always emotional issues within any organization and the CF would not be immune to such turmoil. But if this is recognized and subordinated to the larger demands of organizational requirements, the capabilities required to combat snakes will be satisfied.

In sum, infrastructure and organizations are too costly in terms of resources to be treated lightly or frivolously. Changes to each will be politically charged, both internal to

and external to the CF. Given its cost and its political nature, infrastructure and organization risk becoming the Achilles heel of transformation if not handled well.

Concepts, doctrine and collective training are a current weakness within the CF. With the exception of those SOF elements specifically dedicated, prepared, and ready for the counterterrorism role, there is a paucity of concepts, doctrine and collective training within the CF to deal with the Snakes. For example, there presently is no CF counterinsurgency doctrine, and that which the Army has written still remains in draft form despite the fact that Army troops are executing a counterinsurgency role in Afghanistan and have been doing so for a number of years.[160] Our peacekeeping concepts, doctrine and collective training exercises do offer the CF a start, but the complex nature of our Snakes and the far more aggressive role intended of the CF in combating such Snakes in a changed type of conflict environment drives the need for a complete expansion of this component. Thus, the previously identified idea of a centralized force development agency to conceive, design, build and manage the concepts, doctrine and collective training, demanded of the CF, is all the more worthy of consideration. For example, the CF does not currently have any counterinsurgency doctrine, or nation-building doctrine. It has not rationalized any systemic changes to its collective training in order to deal with these challenges, even though the CF is engaged in such activities in Afghanistan. The Army is on the cusp of releasing a new counterinsurgency doctrine, based on results from an ABCA (American, British, Canadian, and Australian) quadripartite working group on counterinsurgency and relying primarily on British Army sources.[161] Tellingly, this draft doctrine, written in September 2005, received

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[160] Major David Lambert, Directorate of Army Doctrine, telephone conversation with author, 20 March 2006.

[161] *Ibid.*

no input from any joint or CF body – it was entirely produced within the Army.[162] With

respect to nation building or stability operations doctrine, US publications are commonly

referred to, though their scope is usually far beyond the Canadian context.[163] Nor is it

necessarily consistent within a Canadian foreign policy context.

      The same can be said of collective training. Although the Army implemented huge

change for the Brigade Training Event (BTE) 2005 in order to reflect the operating

environment within Afghanistan, collective training as a whole needs to be addressed in the

new context. As the CF looks toward joint effects, collective training that incorporates joint

concepts and doctrine that can deal with Snakes needs to be instituted. These two brief

examples again highlight the need to examine the feasibility of a centralized force

development agency which could rectify the lack of a coherent concept and doctrine

framework for dealing with Snakes, as well as address the requirements of joint collective

training, within the context of the environment where our forces will be deployed fighting

those same Snakes.

      Without cogent concepts, strong doctrine, and appropriate collective training all

firmly based in dealing with Snakes in a joint environment, the CF is taking huge risks as a

military. Such risks can only be mitigated by developing and implementing appropriate

concepts, doctrine and training.

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[162] *Ibid.*

[163] An excellent discussion on the limits and usefulness of current US counterinsurgency (COIN) and stability and reconstruction concepts, doctrine and tactics, techniques, and procedures (TTPs) can be found in a critical paper written by a UK Brigadier about US Army: Nigel Aylwin-Foster, "Changing the Army for Counterinsurgency Operations." *Military Review* 85, no. 6 (November/December 2005): 2-15 [journal on-line] available from http://www.proquest.umi.com; Internet, accessed 15 March 2006. An additional paper, again critical of present doctrine and training, is from a former Commanding General of 1 US Cavalry Division in Iraq: Peter W Chiarelli and Patrick R. Michaelis, "Winning the Peace: The Requirement for Full-Spectrum Operations." *Military Review* 85, no. 4 (July/August 2005): 4-17 [journal on-line] available from http://www.proquest.umi.com; Internet, accessed 15 March 2006.

Issues within the information technology (IT) infrastructure component are technically challenging and, like those in R&D/OR and normal infrastructure, because they fall under Assistant Deputy Minister Information Management (ADM (IM)), are out of the immediate domain of the CF. That notwithstanding, such issues should be recognized and reconciled within the new context and be aimed at fighting Snakes.

In many ways, ADM (IM) has been addressing various Snakes already. One of the many tasks of the Canadian Forces Information Operations Group (CFIOG) is the daily battle with cyber terrorists and hackers who attempt to attack CF information technology systems. Although a minor example, it is a useful illustration. In addition to those threats which we currently understand within cyberspace, IT infrastructure will be essential in improving and providing capabilities to fight Snakes. A short example is the constant references within US sources to the importance of the availability of fused, actionable intelligence to fighting Snakes. One of the proposed technical solutions is the near real-time ability to collect, fuse, evaluate and disseminate useable and timely intelligence, although this concept has not yet been realized. IT infrastructure is critical to such a development being employed against our Snakes. And yet this one example suggest important related issues to IT infrastructure to enable the forces to combat Snakes, including: a common and joint common operating picture for the CF's IT systems, which would mean its many stove-piped systems would be able to exchange data and provide for a joint picture; common voice and data operational communication systems; or even a common operational data base across the CF. Such suggestions are easily identifiable by even a layman – the actual list of questions and possibilities is indubitably much longer and more complex.

In sum, IT infrastructure and IT issues need to be captured in a joint manner, which is currently not the case, and technological improvements need to recognize the changed threat from Bears to Snakes.

Finally, there is the equipment, supply, and service component of joint operations. As with the previous components, much of this falls outside the CF, in this case under the purview of the Assistant Deputy Minister Materiel (ADM (Mat)). However, the significant problem with equipment is that it is inextricably linked to capability and organization. The ADM (Mat) portion is the relatively easy part because once the capability and organization have been determined, the equipping piece is largely an activity tied to an acquisition process.

Yet it is important to note some of the changes required within this component. Our understanding of an acquisition system which takes years or decades to deliver a capital crown project is not sustainable when we are fighting Snakes.[164] If a risk can be mitigated, or a capability enabled by speedy procurement then our system requires increased flexibility, for example the rapid purchase of unmanned aerial vehicles (UAVs), or urban patrol vehicles, or an amphibious ship to permit power projection. This issue needs to be recognized and DND – as well as other Government departments, such as Public Works – needs to address the situation to ensure that fundamental difficulties within the procurement process are addressed.

With respect to service and supply, a number of issues can be raised. For example, the CF needs to maintain available national stocks in ammunition and spares in order to battle the Snakes, particularly as it has experienced an increase in this expenditure while

engaged overseas. Additionally, the CF support framework with civilian contracts to supply and service the CF both abroad and at home need to be considered in light of the changed threat and increased use of services, which are well beyond that experienced in the either the Cold War or the 1990 peacekeeping period. These examples suggest much larger issues which need to be considered to better enable Transformation.

Although the example provided illustrates one small issue, it demonstrates the necessity to review the CF's equipping, supplying and servicing on a broader basis. Without transforming this much larger piece of national logistics, our total Transformation may be at risk.

Our review of the joint category required using PRICIE as a guide, identified a number of possible issues. First, there is a plethora of issues required in the military domain to enable the joint force demanded of the CF Vision and required of Transformation. Second, Transformation should seriously consider a capability development process that employs a centrally controlled process, in order to create a truly joint force which measures its capabilities against the new threat of Snakes and the type of conflict in which such Snakes will be found. Finally, serious consideration should be given to a centrally controlled process (like one executed by a central force development agency) so that all PRICIE components are coordinated and resolved. Without an overarching force development structure and the necessary controls, disparate ADM groups and environments may inadvertently weaken the attempts to achieve true jointness in battling Snakes. At the end of the day, the CF must remind itself that such force development is a complex and multifaceted challenge, on that

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[164] For further information, refer to the following: Paul Manson, "Creating an Acquisition Model That Delivers" *On Track, Conference of Canadian Defence Associations Institute* 11, no. 1 (Spring 2006) [journal on-line] available from http://www.cda-cdai.ca/pdf/ontrack11n1.pdf; Internet; accessed 9 April 2006.

that deserves as complete as resolution as possible in order that we can transform and hunt Snakes.

Interagency Cooperation

Unlike joint operations, which tends be driven solely within the military structure, interagency cooperation relates to Departments and agencies of the Government of Canada, what the IPS and DPS refer to as a "whole of government approach" and what is commonly called 3-D cooperation, the Ds being Defence, Diplomacy and Development. Given its inter-departmental nature, not all aspects of the PRICIE will be applicable. Further, as the reader is now likely familiar with the PRICIE, this section will raise issues and questions in order of priority, rather than by their order in PRICIE.

It would be unwise to think that interagency, or interdepartmental, cooperation did not exist prior to the CF Vision and IPS. The Canadian government system is based on departmental cooperation: from the Prime Minister within Cabinet, to Ministers across departments, to Deputy Minister cooperation, Assistant Deputy Ministers' coordination, Director Generals working with each other, and finally Directors and staff officers functioning in interdepartmental working groups.[165] Both prior to and following the IPS, all of this cross-agency and interdepartmental work continues, particularly with the "3D" actors of diplomacy (Foreign Affairs Canada – FAC), development (Canadian International Development Agency – CIDA), and defence (DND).[166] The system works well at the

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[165] Colonel Denis Thompson, Director of Peacekeeping Policy, National Defence Headquarters, telephone conversation with author, 22 March 2006.

[166] *Ibid.*

national, strategic level in Ottawa and at this point, the 3D players typically work within their own department.[167]

However, what did change was the IPS "whole of government" or CF Vision "Team Canada" concepts.[168] The intent was to move beyond the purely strategic and stove-piped mould, and implement a more integrated approach from beyond Ottawa. This lead to the creation of the Stabilization and Reconstruction Task Force (START) in Ottawa[169], and the Provincial Reconstruction Teams at the tactical level, the first one deploying to Afghanistan.[170] The START provides an interesting example in that it is being used today to fight Snakes. The PRT, the 3D approach in Afghanistan, was a direct result of the START employing concepts based on experience gained in Afghanistan since 2001.

Although these concepts exist and are being implemented, one of their main weaknesses it that there is very little detail with the concept, and no CF doctrine associated at all. Therefore, each and every issue is hammered out at each level within the 3Ds.[171] Although DND is attempting to commit concepts to doctrine, there is resistance with other actors, particularly at FAC. One example is the PRT Framework Agreement between the 3D players, which was drafted in March 2005 and one year later is within the FAC bureaucracy.[172] Thus, although the IPS and CF vision provided the broad underpinnings, the

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[167] *Ibid.*

[168] To begin with the 5 document IPS points to an entirely new whole of government approach. However, specific references can be identified at: *International Policy Statement – Overview*, Foreword, 3, 28-30. Additionally with the CF Vision, where Team Canada is represented across successive slides, refer to: Department of National Defence, *Setting Our Course...*Presentation Slides 20-30.

[169] Thompson.

[170] Lieutenant-Colonel Pat O'Halloran, Directorate of NATO Policy, PRT Desk Officer, National Defence Headquarters, telephone conversation with author, 22 March 2006.

[171] Thompson, O'Halloran.

[172] O'Halloran.

actual concepts and doctrine are still nascent/non-existent and the implementation is being

executed by the best efforts of CF, FAC and CIDA personnel in the field, supported by a

number of dedicated, if at times competing, desk officers and Directors who attempt to

translate big picture Vision, into action on the ground.[173] What is missing are the refined

concepts and doctrine required for CF personnel.

That is not to say that this situation is dire. Our US allies, who have a far greater

challenge than we do in their interagency/interdepartmental approach, have the concepts and

have the doctrine.[174] However, their main difficulty is applying the concepts and doctrine to

the situation on the ground. Those problems are typically grounded in personnel availability,

the individual training of the personnel, and even with the right/trained people on the ground,

the appropriate application of the doctrine. These criticisms have been voiced by former US

commanders in Iraq, like Major General Chiarelli,[175] and from academics like Frank

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[173] O'Halloran. Also see: Sean M. Maloney, "Canada's New and Dangerous Mission in Afghanistan," Policy *Options* 27, no. 3 (March 2006): 97-101.

[174] For example refer to: Paul David Miller, *The Interagency Process: Engaging America's Full National Security Capabilities,* (Cambridge, MA: Institute for Foreign Policy Analysis, 1993).   As well as: Jennifer Morrison Taw, Interagency *Coordination in Military Operations Other Than War: Implications for the U.S. Army.* (Santa Monica: RAND, 1997). Or even: David P Cavaleri, *Easier Said Than Done: Making the Transition Between Combat Operations and Stability Operations* (Fort Leavenworth, KS: Combat Studies Institute Press, n.d.) available from http://www-cgsc.army.mil/carl/download/csipubs/cavaleri.pdf ; Internet, accessed 20 March 2006. Additionally, doctrine exists, refer to: United States, Department of Defense, Interagency *Coordination During Joint Operations, Vol 1* (Washington, DC: Chairman of the Joint Chiefs of Staff, 1996). Or the aforementioned US FMI 3-07.22 *Counterinsurgency Operations,* or UK Army Field Manual, *Counter Insurgency Operations*.

[175] Peter W Chiarelli and Patrick R. Michaelis, "Winning the Peace: The Requirement for Full-Spectrum Operations."

Hoffman, Janine Davidson and Tammy Schultz[176], as well as commentators, like our 4GW+ theorist Thomas Hammes[177].

Thus, from both Canada's and our allies' experience, the issue of concept, doctrine and the non-existent collective training, demonstrates a vital area of concern which needs to be addressed, not only by those of us in uniform, but also by, and with, our supporting 3D players if the CF truly wants to become a transformed force that can effectively deal with Snakes.

Canada has not been immune, however, to personnel challenges in a 3D context. For example, DND/CF provides a Lieutenant-Colonel liaison officer to both FAC and CIDA for interdepartmental policy issues.[178] For the PRT in Kandahar, CIDA has deployed one representative and FAC is only just now replacing an official in March 2006, after the tragic death of Glyn Berry three months earlier. Additionally the RCMP has six officers with the PRT.[179] This small example demonstrates the small numbers of interagency cross-posted personnel there are to achieve the whole of government approach desired of the IPS and regarded in the Vision. Although FAC and CIDA personnel are not needed in large numbers, given the nature of their work, more cross-posted personnel will likely be required. To that end, DND is placing two seconded Reservists (major/lieutenant-colonel level) with START, and CEFCOM is informally exploring the feasibility of having representatives from FAC and CIDA work for its policy cell. All of this work is directly related to fighting Snakes because

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[176] Frank G Hoffman, "Small Wars Revisited: The United States and Nontraditional Wars" The *Journal of Strategic Studies* 26, no. 6 (December 2005) As well as: Janine Davidson and Tammy S. Schultz, "What America's Troops in Iraq Really Need," *Edmonton Journal*, 21 December 2005, A.19.

[177] Hammes, Thomas X. "The Evolution of War: The Fourth Generation."
[178] Thompson.

[179] O'Halloran.

a 3D approach is more useful in this context, for any number of social, military or economic reasons. The holistic approach better addresses the broad problems found in fighting Snakes.

One of the key challenges is that the individual training of the FAC and CIDA personnel that are attached or seconded to CF units and/or headquarters is not undertaken in a fashion similar to CF training. That is, FAC and CIDA do not administer on-going professional training of a type similar to that provided by the CF to its personnel. FAC and CIDA generally try to find personnel with suitable professional background (e.g. those who have field experience or were previously posted to a particular country or region) and the selected personnel frequently undertake training offered by the CF Peace Support Training Centre (PSTC) in Kingston. From a CF perspective, the ad-hoc nature of other Government department training, is not ideal and the CF may wish to consider discussing issues such as early identification of other Government personnel for a mission and the applicability of CF training courses and opportunities (e.g. offered by PSTC, Canadian Forces College, as well as operational training being undertaken by the deploying CF unit). The emphasis on the CIDA and FAC training must be towards making the 3D concept work operationally because that will impact on how Canada deals with Snakes abroad. However, such discussions may not be easy, and other Government departments' corporate and personnel priorities may not fit easily into the CF training framework.

Finally, several smaller challenges exist with respect to the other PRICIE components. For example, a requirement exists for R&D and OR (most particularly OR) associated with the effectiveness of interagency initiatives and that element of OR which should be directed towards personnel issues of the other departmental players. Although other Government departments do not undertake such research, it might be a future area of

cooperation that could be explored between the 3D departments. With respect to IT infrastructure, the issues in a 3D context are simply more compounded, as civilian and police IT systems are added into the entire mix, challenging the ability to provide cross-connectivity, secure systems, deployable systems, and data base sharing and fusion. And finally the equipment, supplies, and services piece may seem straightforward, but FAC's initial, and still unresolved, disagreement with DND over the PRT should be noted, as it concerned the provision of services to its one member in Kandahar[180]

In conclusion, the majority of the key issues and concerns that arise out of a whole-of-Government approach are similar in nature to those that arise out of joint operations. The complicating factors, however, are that such issues must be tackled with even fewer people and less staff horsepower (and possibly will) even as the CF is engaging Snakes in failed and failing states worldwide.

<u>Multinational Coordination</u>

Without being too dramatic, the issues associated with the joint operations and interdepartmental cooperation pale are simply compounded when brought to the next level – the Multinational category. Achieving a coordinated effect within one government is difficult at best, but the addition of other national governments, bilateral arrangements, multilateral arrangements, alliances, regional frameworks, international organizations, and international players make coordination extremely difficult. That is not to say that it cannot be done; however the more multinational any activity becomes, the more stovepiped those multinational players become within their own organization, striving to achieve that multinational effect. This will always be the case, for even a quadripartite agreement such as

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[180] O'Halloran.

ABCA cannot agree on PRICIE components for even simple capabilities. Trying to

undertake a multinational, whole-of-government approach across ABCA may be impossible.

The point is that while multi-nationalism is necessary and desirable, particularly when

applied to Snake hunting, multi-nationalism can usually only be recognized and employed at

the strategic level and then implemented with technical fixes at the tactical level.

Discussions of this type can be found with authors like; Joseph Nye, Yukio Satoh, Paul

Wilkinson and David Aaron.[181] For the CF – and Canada – the possible answer is to

integrate as much multinational capacity and capability within our own PRICIE results and

then resolve those frictions at the strategic, operational, and tactical level when they arise.

Public Considerations

In assessing the Public Category, the public pertains not only to the public at large (in

Canada, with allies, and the world) but also non-governmental organizations. While the

desire and requirement for public support in fighting Snakes can be found in our own

Government documents[182], and with Snake specialists like Bruce Hoffman, Jennifer

Morrison Taw and William Rosenau[183], the bottom line is that this becomes very much a

politically-driven activity. That is not to say that the CF would not play a supporting role,

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[181] Joseph S Nye Jr, Yukio Satoh and Paul Wilkinson, Addressing *the New International Terrorism: Prevention, Intervention and Multilateral Cooperation,* A Report to the Trilateral Commission, (Washington, DC: The Trilateral Commission, 2003). And: David Aaron, ed. *Three Years After: Next Steps in the War on Terror,* (Santa Monica, CA: RAND, 2004).

[182] For example, refer to DND's *Strategic Assessment 2004*; available at Department of National Defence, "DND Policy Group: Strategic Analysis Documents," http://www.forces.gc.ca/admpol/eng/doc/str_e.htm; Internet, accessed 8 March 2006.

[183] Arguments for the necessity for action at the politico-strategic level to engage the public can be found in: Bruce Hoffman, *Lessons of 9/11.* As well as: Bruce Hoffman and Jennifer Morrison Taw, *Strategic Framework for Countering Terrorism and Insurgency* (Santa Monica, CA: RAND, 1992) available from http://www.rand.org/pubs/notes/2005/N3506.pdf ; Internet, accessed 10 March 2006.   And also with: William Rosenau, "Waging the 'War of Ideas,'" in *The McGraw-Hill Handbook of Homeland Security,* ed. David G. Kamien, 1131-1148 (New York: McGraw-Hill, 2005) available from http://www.rand.org/pubs/reprints/2006/RAND_RP1218.pdf ; Internet, accessed 10 March 2006.

whether supporting the Government's agenda abroad, hunting Snakes, or working with public organizations in failed and failing states, or undertaking Information Operations activities within those failed and failing states. Once again, like the Multinational or even Interagency categories, the scope and complexity of this category far exceeds the resources and control of any nation. Nor is it desirable or possible for any nation, or group of nations, to attempt to control this area. Thus we return to the previous conclusion from our consideration of multinational coordination and should consider attending to the Public elements within PRICIE components when it is desirable, possible, and sensible to do so. For example, the CF could look to the concepts and doctrine development of dealing with non-governmental organizations or international media houses. (To an extent, some basis already exists here with the Humanitarian Operations doctrine and the Humanitarian Guidelines agreed to between the 3-D departments.) Or it could look towards the CF capacity for Information Operations in failed and failing states based on IT infrastructure, and third party services. These are just very small examples of the impact that the Public category can have on our joint operations.

Conclusion

Using our earlier considerations of the changed nature of conflict and the combatants the CF will likely face within such conflicts, this chapter identified the significant issues and questions that CF Transformation will have to consider as it moves forward. There are myriad of such issues that need to be addressed. For joint operations, there are a vast number of PRICE component issues that need to be addressed, just in order to develop the joint force conceptualized within the DPS and CF Vision. When these issues are brought to the interagency level within our Government, an additional layer of complexity is added. But it

is one that can be managed within the resources of our government. When considering multinational coordination and public considerations, the issues and areas of concern became incredibly complex, meaning that a national, strategic, plan will be required to focus the CF while operational and tactical fixes will need to be made at the appropriate level. Finally, in considering the impact of the multinational coordination and public considerations, our PRICIE components within the CF scope need to consider and incorporate those desirable elements, or those elements that we wish to influence in the multinational or public domain as we hunt Snakes.

Implementing the CF Vision to enable our Transformation will be extremely challenging with innumerable, multifaceted and interconnected issues. It will not be an easy fix of increasing one tactical unit at the expense of another. Nor will Transformation simply be realized through the creation of a single capability like the Standing Contingency Task Force. Instead, Transformation can only occur once we acknowledge the intellectual framework which got us to here, understand the true nature of the Snakes we intend to engage in a global context, and then create a relevant, effective, and responsive CF that has subjected itself to a thorough, centralized capability development process and implemented the required PRICIE components across the CF. Until such time as all three of these activities are not completed, we may be condemned to hunt Snakes with a Bear gun.

APPENDIX 1 – The CF Vision Slides

Slide 1
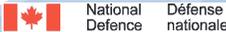
Slide 2

**Present Posture
Focused on the Bear**

40,000'

Air

Land

Sea

-2,000'

Full Spectrum
Broad Investment

Slide 3

Shifting Focus

Adaptive

Focus

Non-State Actors

Hostile Nation States

Asymmetric   Conventional

The Bear
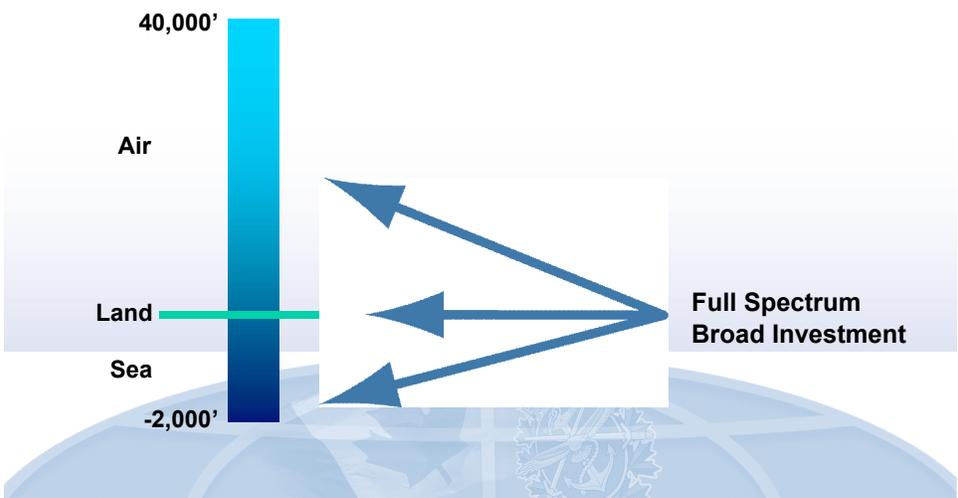
The Snakes
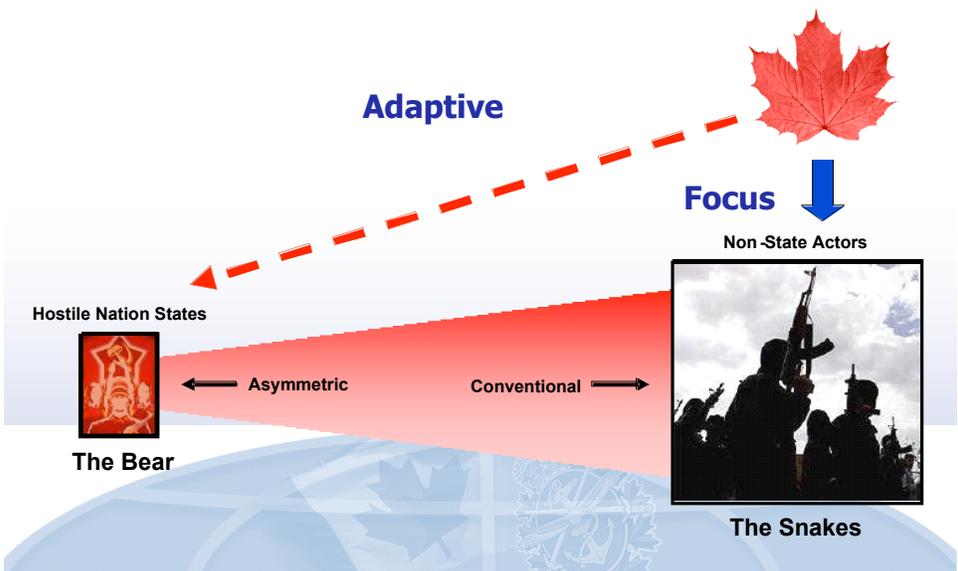
Slide 4

**Real Threats, Real Challenges
Addressing our National Interests**

Slide 5

Our Challenge

Achieving **strategic impact**
with our **Canadian Forces**

Slide 6

**One View
Focused on the Snakes**

The Bubble

The Air/
Land/ Sea
Interface

Focused and
Integrated
Effects
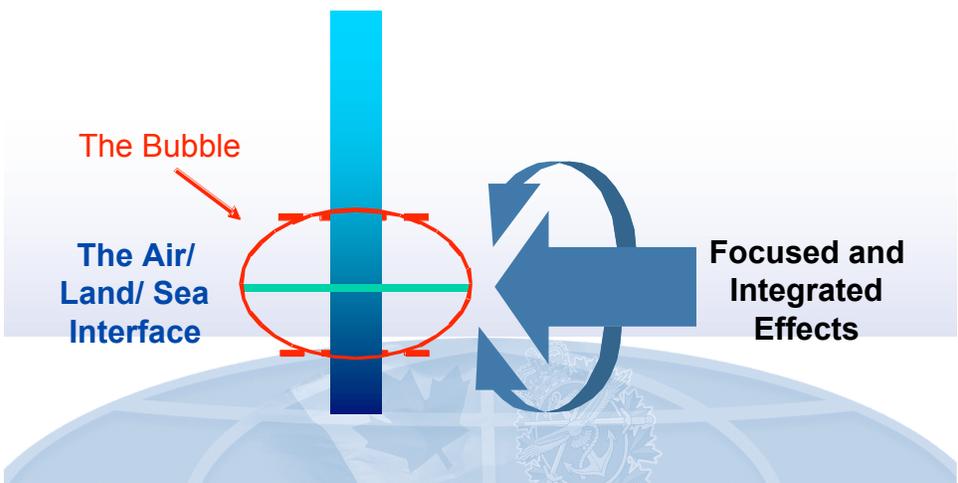
Slide 7

**Domestic Realities,
International Challenges**

1 – Defend Canada

Slide 8

**Defend Canada
Surveillance**

Slide 9

**Defend Canada
Command and Control**
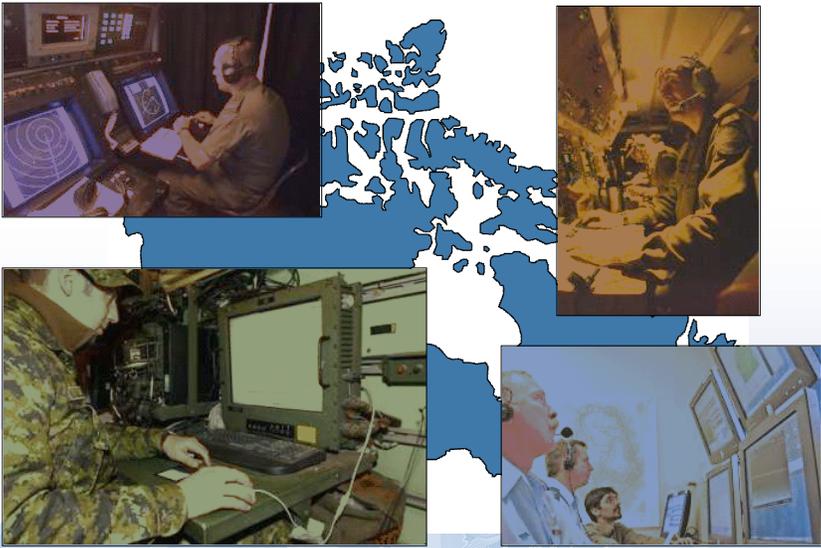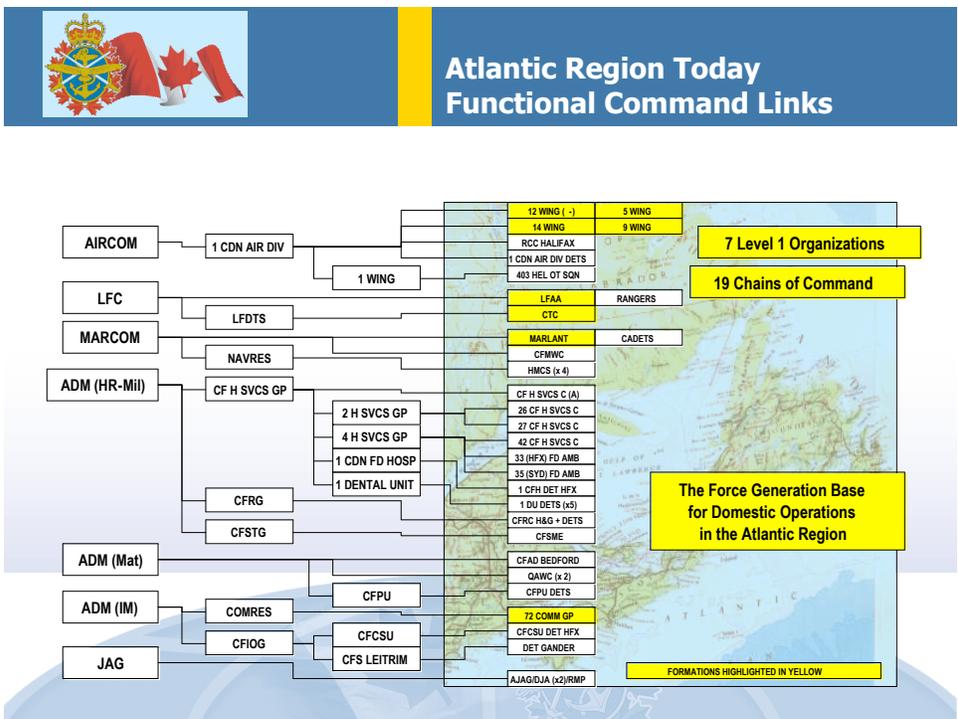
Slide 10

Slide 11

Slide 12

**Defend Canada
Enablers**

Slide 13

**Domestic Realities
International Challenges**
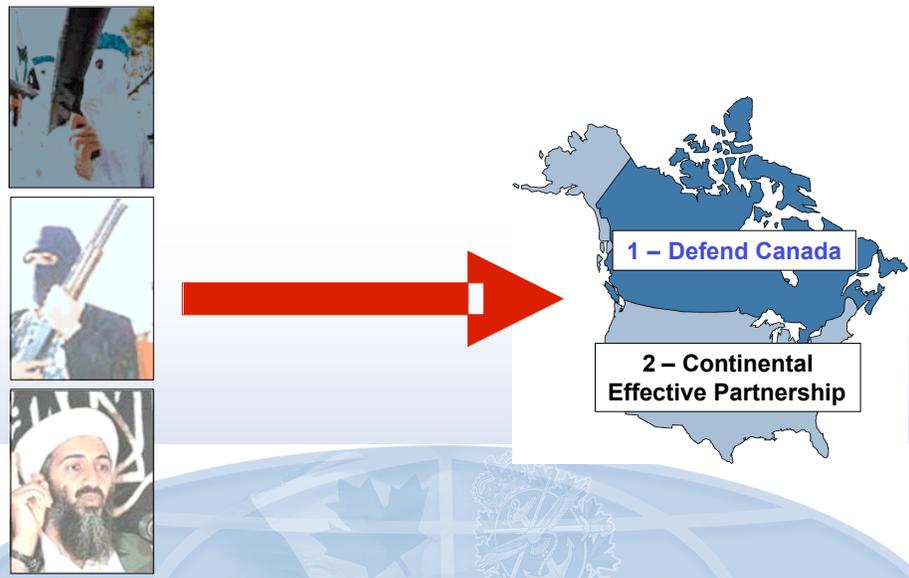
1 – Defend Canada

2 – Continental
Effective Partnership

Slide 14

Continental Partnership

Slide 15

Domestic Realities
**International Challenges**
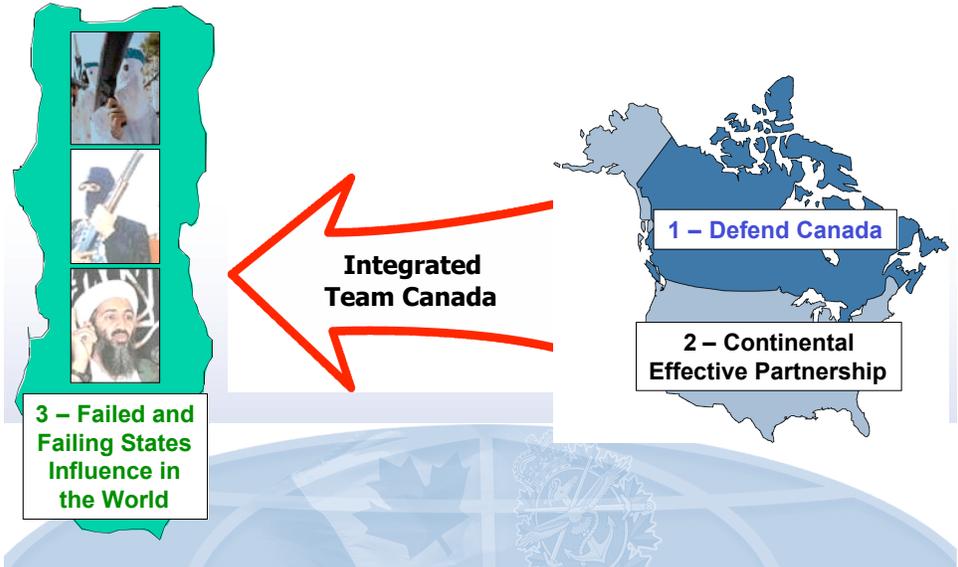
Slide 16
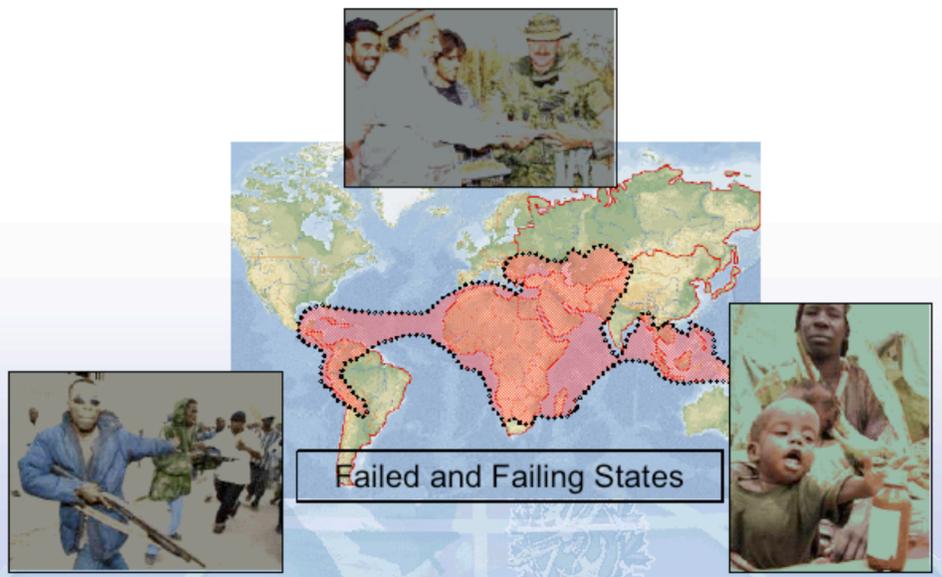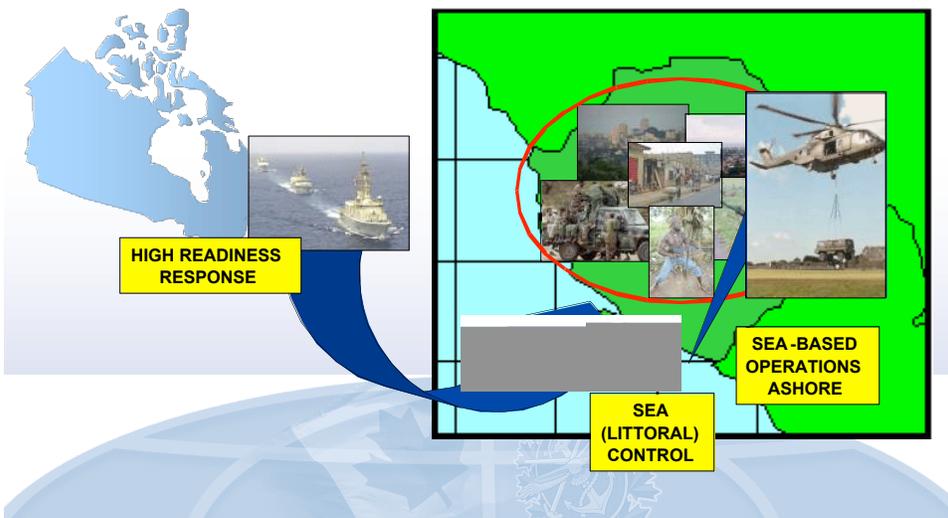
Slide 17

Slide 18

Slide 19
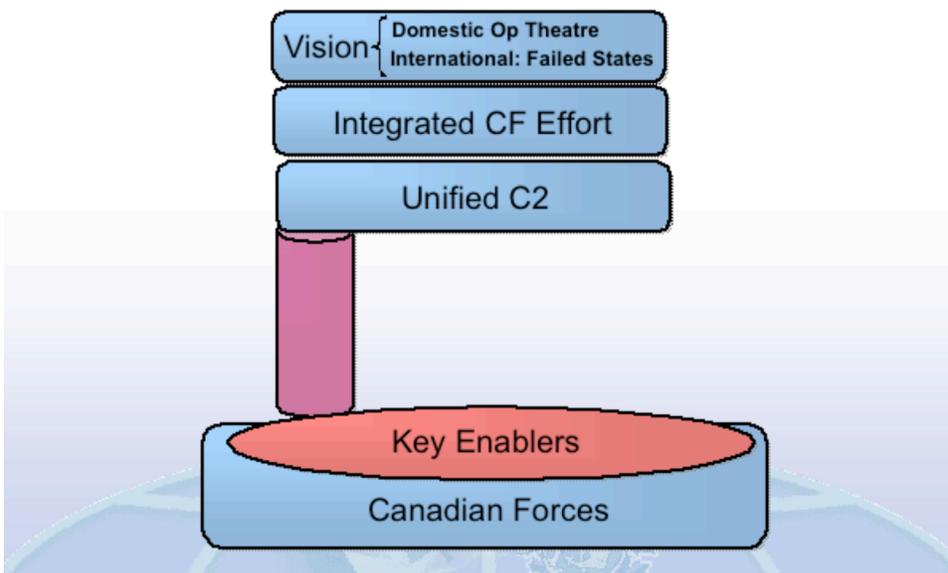
Slide 20

Joint Domestic Command and Control

CanadaCOM

Slide 21

How We Will Do This

Vision { Domestic "Op Theatre"
International: "Failed States"

Integrated CF Effort

Unified C2

Key Enablers

Canadian Forces
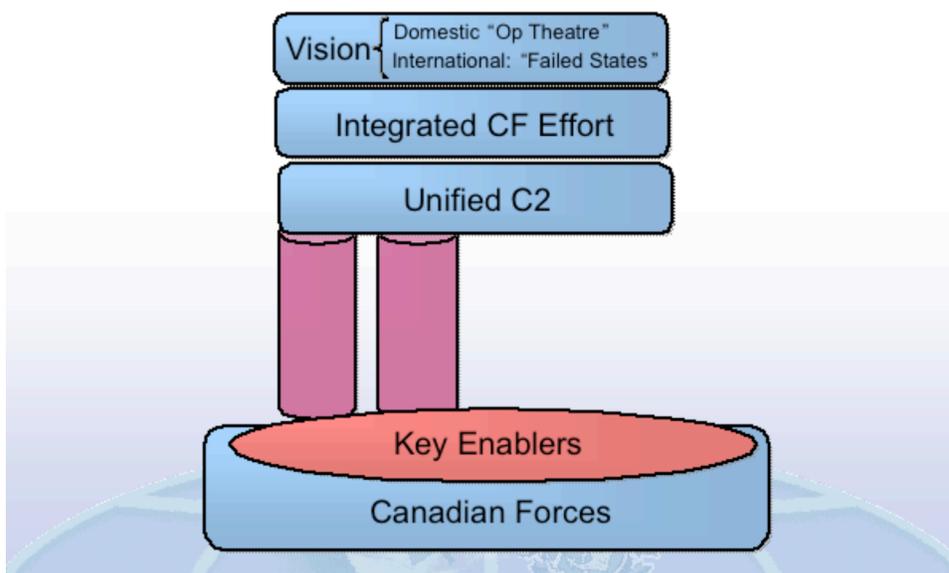
Slide 22

Special Operations Task Group

Slide 23

How We Will Do This
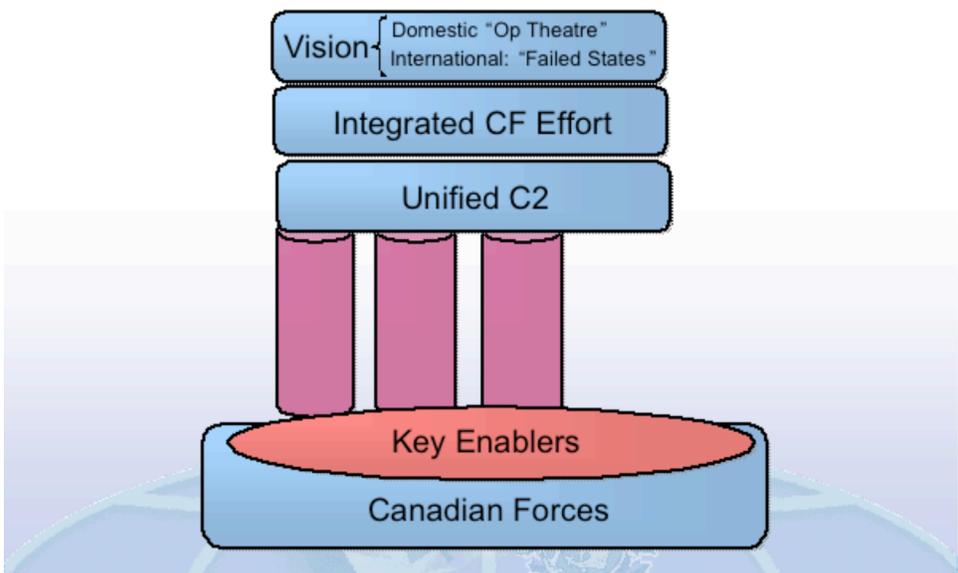
Slide 24

Standing Contingency Task Force

Task Force "Maple Leaf"

Slide 25

Standing Contingency Task Force

- Fully integrated combat unit (Land, Sea, Air and Special Forces)
- Trained and certified to deploy within 10 days of order to move;
  Postured and equipped for rapid deployment
  Capable of pre-positioning in vicinity of developing crisis
  to provide Strategic Intelligence and Warning
  Initial Canadian response to an emerging crisis
  Facilitate follow flow of forces, if necessary
- Utility for employment in peace and confidence building role

Relevance, Responsiveness and Effectiveness

Slide 26

How We Will Do This

Slide 27

Joint Task Forces
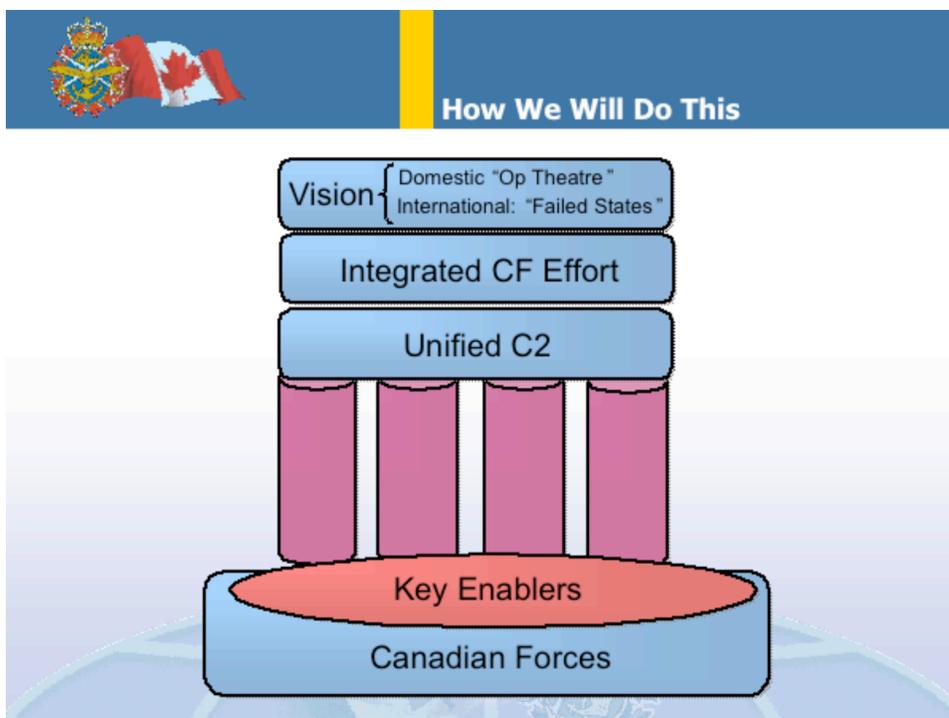
Slide 28

Mission Specific Task Force
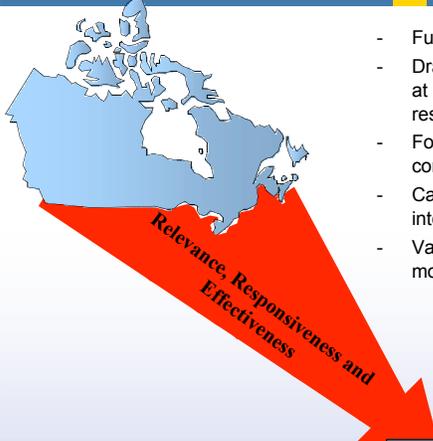
- Fully integrated "Task Tailored" forces
- Drawn from Land, Sea, Air and Special Forces maintained at lower states of readiness that facilitate a deliberate response to an emerging crisis
- Follow-on forces to SOG, SCTF or a discrete / stand alone contribution to other operations
- Capable of allowing Canada a major Leadership role internationally (geographic or component command)
- Various degrees of sustainment (up to or in excess of 12 months)

Relevance, Responsiveness and Effectiveness

Slide 29

How We Will Do This

Vision { Domestic "Op Theatre" / International: "Failed States"

Integrated CF Effort

Unified C2

Key Enablers

Canadian Forces
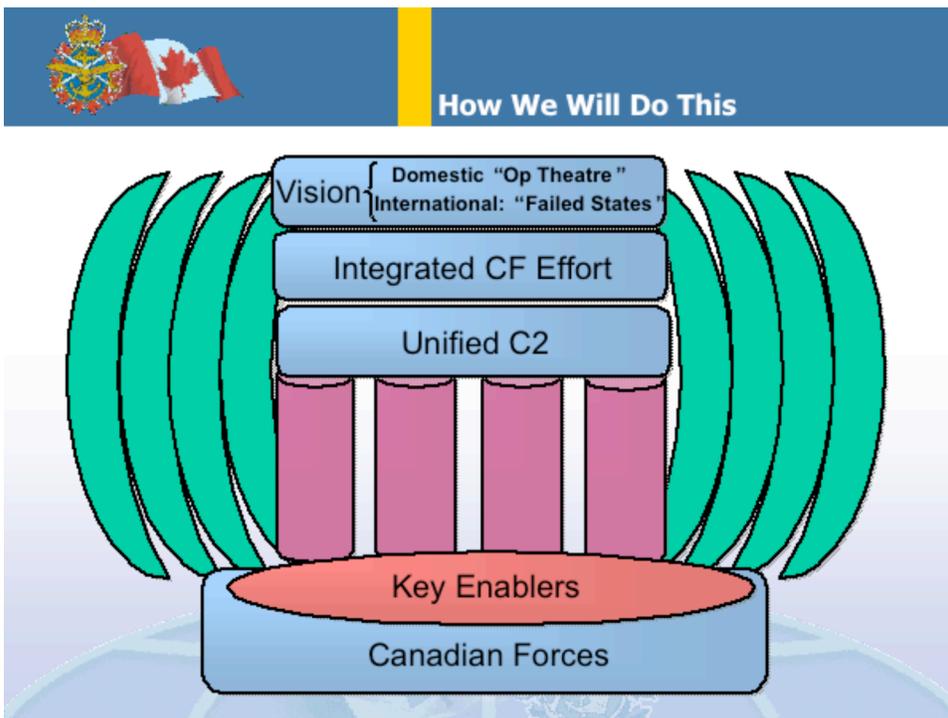
Slide 30

Summary

Context:
- Leadership
- Ideas
- Money

Thrust:
- Expand
- Fix
- Modernize

Results:
- Relevant
- Responsive
- Effective

Transformed

Slide 31

Early Steps

- CDS Action Teams
- Domestic C2
- Atlantic Region
- Helicopters
- Special Operations

Slide 32

APPENDIX 2 – Themes and Methods in recent Conflict Lexicon

This annex outlines those themes, methods, or catchphrases which have entered the CF's lexicon over the past decade and a half, but which on their own do not stand discretely as a contextual framework of conflict. It is important to briefly identify these items at this point, not to classify them as either important or irrelevant, but to simply categorize them as a contribution to the grander body of knowledge. Some have argued informally for one to have prominence over the others or have discounted those models discussed within the main body of Chapter I. It is for these reasons that I provide a brief overview of them here. What follows here are those themes, methods and catch phrases that contribute in a holistic sense to the overall debate but which by themselves are not substantive enough to be considered a wholly developed framework.

"VUCA"

VUCA, a theme, is an acronym which stands for: Volatility; Uncertainty; Complexity; and Ambiguity. VUCA comes from a strategic leadership and decision making process which was developed at the US Industrial College of the Armed Forces. It initially appeared in 1997 in *Strategic Leadership and Decision Making: Preparing Senior Executives for the 21st Century*.[184] Put simply, VUCA's component parts are as follows:[185]

- Volatility pertains to the rate of change. For strategic leadership, its leadership and decision making processes must recognize that volatility (or the rate of change) is increasing at a critical pace.

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[184] United States Industrial College of the Armed Forces. *Strategic Leadership and Decision Making: Preparing Senior Executives for the 21st Century*. Washington DC: National Defense University Press, 1997. Available from http://www.au.af.mil/au/awc/awcgate/ndu/strat-ldr-dm/cont.html; Internet, accessed 10 March 2006.

- Uncertainly results from the complexity of systems and subsystems at the strategic level and from incomplete knowledge about the current situation. In order to resolve uncertainty, strategic leadership and decision making must penetrate the fog surrounding the present situation and make likely assumptions about future outcomes.

- Complexity is linked to the multiplicity of key decision factors. It can only be tackled by strategic leadership with a correct frame of reference, or perspective, that can be recognized and understood by others coupled to a leaders mastery of decision tools and processes that will enable him, or her, to bring a broader set of perspectives into that decision making process.

- And finally ambiguity is related to the lack of clarity about the meaning of an event. Ambiguity can only be addressed by acknowledging that a singular, stand-alone, perspective cannot be employed by strategic leadership, and that the decision maker must produce a perspective through consensus which will be broader than that of any single person.

For our present purposes, although VUCA has been inserted into our lexicon, its practices have not been to any discernable degree. Until such practices have been adopted, whether desirable or not within a CF context, discussing VUCA as it is presently understood in an informal sense brings it to the level of a buzzword. Thus, its use should be discouraged until such strategic leadership and decision making practices are emplaced within the CF.

Full Spectrum Operations

Full Spectrum Operations (FSO) is a US military theme which describes the overall methods of military operations including offensive, defensive, stability, and support

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[185] Details are available in Part One, Chapter Two of the Reference, *Strategic Leadership and Decision Making: Preparing Senior Executives for the 21st Century*, available from

operations across the entire spectrum of conflict.[186] In a traditional US context, the term FSO

made sense as it highlighted the two main components within their doctrinal range of

operations, "War" and "Operations Other Than War (OOTW)." With US involvement in the

Global War on Terror (GWOT), Operation Enduring Freedom (OEF), and Operation Iraqi

Freedom (OIF) it would appear that the former, classical distinction within US forces to

perceive war and OOTW in a strict sense is disappearing. Yet in spite of this merging of the

types of military operations, the term and theme are relevant to the CF, and its use should be

encouraged as it relates to and encompasses our traditional CF understanding of military

operations under a continuum of conflict.

<u>Contemporary Operating Environment</u>

The Contemporary Operating Environment (COE) is another US military theme that

the US Army Training and Doctrine Command developed by 2002 in order to describe the

environment that exists today and out to 2020 in which its forces will be operating.[187] The

COE's range of threats during this period extends from small, low technology opponents

using adaptive, asymmetric methods to large, modernized forces able to engage deployed US

forces in conventional, symmetrical ways. In some possible conflicts (or in multiple,

concurrent conflicts), a combination of these types of threats could be especially problematic.

The COE is based upon eight premises:

(1) The US will have no single peer or near-peer competitor until 2020 or beyond;

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http://www.au.af.mil/au/awc/awcgate/ndu/strat-ldr-dm/pt1ch2.html ; Internet, accessed 10 March 2006.

[186] United States. Department of the Army. *Operations: Field Manual No. FM 3-0.* Washington, DC: Headquarters, Department of the Army, 14 June 2001. http://www.globalsecurity.org/military/library/policy/army/fm/3-0; Internet, accessed 10 March 2006.

[187] United States, Department of the Army, Centre for Army Lessons Learned, *Operation Enduring Freedom: Tactics, Techniques and Procedures Handbook No. 02-8.* (Leavenworth KS: Army Centre for Lessons Learned (CALL), 2002) http://www.strategypage.com/articles/operationenduringfreedom/default.asp; Internet, accessed 10 March 2006.

(2) Nation-states will remain principal actors in the global political arena, but non-state actors (including transnational actors) will increasingly take prominent positions in world affairs. Such non-state actors will play important roles in any conflict – as combatants or non-combatants;

(3) Nations will continue to field armed forces and use them as tools to pursue national interests. Entities other than nations will also pursue their own interests (which may be ethnic, religious, economic, or political) through force or by other means, either independently or in conjunction with other non-state or nation-state actors;

(4) As nation-state or non-state actors pursue their own interests, their actions may cause US intervention, either unilaterally or as a coalition partner, with or without UN mandate;

(5) Nations that believe the US will act counter to their national interests will develop diplomatic and military plans for managing US intervention;

(6) Nations will modernize their armed forces within the constraints of their economies, but based on an investment strategy of upgrading their conventional forces for possible use against regional foes and developing adaptive, niche technologies for possible use against extra regional foes such as the United States;

(7) The rapid development and proliferation of advanced technology will make such technology available on the world market for a wide variety of nation-state and non-state actors; and,

(8) All combat operations will be significantly affected by a number of variables in the environment beyond simply military forces.[188]

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[188] *Ibid.*, Chapter I, available from http://www.strategypage.com/articles/operationenduringfreedom/chap1.asp; Internet, accessed 10 March 2006.

With respect to our CF Transformation, the use of the COE theme is valid and should be encouraged for two reasons. First, it provides us with a common reference point to interact with US forces through our bilateral and bi-national agreements as well as through our quadripartite and NATO agreements. Second, it is an accurate description of what not only US, but also CF elements will face for now and the foreseeable future. As such, its definition, understanding, and use should be encouraged.

Future Security Environment

In 2004, the CF published a Future Security Environment (FSE) out to 2025 as a means to assist strategic planning.[189] The FSE is a theme that attempts to provide a long-term perspective to assist with generating defence capabilities and acquisitions. In establishing the FSE its authors, Peter Johnston and Dr. Michael Roi, identified conflict and international strife as major features of the post Cold-War security environment and that this trend will likely continue into the future. Recognition of interstate as well as intrastate war remained key. The FSE addressed: war and the international system; globalization; US economic and military predominance; as well as, emerging threats to stability.[190] Although the FSE was published in 2004, prior to General Hillier's CF Vision and goal for transformation, the paper remains largely extant, demonstrating the long-term intellectual value of its contents. As such, its understanding and use should be encouraged in order to support CF Transformation.

Network Centric Warfare

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[189]Department of National Defence, "Future Security Environment 2025," Defence Planning and Management Reports and Publications, available from http://www.vcds.forces.gc.ca/dgsp/pubs/rep-pub/ord/fse2025/intro_e.asp; Internet, accessed 9 March 2006.

[190] *Ibid.*

Network Centric Warfare (NCW) is an emerging US method of warfare. A 2001

DoD report to the US Congress, defined NCW as:

> To first order, network-centric operations are military operations that are
> enabled by the networking of the force. When these military operations
> take place in the context of warfare, the term network-centric warfare is
> applicable. Warfare takes place simultaneously in and among the physical,
> the information, and the cognitive domains.[191]

NCW's central hypothesis is that a force with these capabilities can increase combat power,

by better synchronizing effects in the battlespace, achieving greater speed of command, and

increasing lethality, survivability, and responsiveness.

> Further DoD claimed that:

> Network Centric Warfare (NCW) is no less than the embodiment of an
> Information Age transformation of the DoD. It involves a new way of
> thinking about how we accomplish our missions, how we organize and
> interrelate, and how we acquire and field the systems that support us.
> NCW moves the Department to the next level of Jointness as envisioned in
> Joint Vision 2020. This monumental task will span a quarter century or
> more. It will involve ways of operating that have yet to be conceived, and
> will employ technologies yet to be invented. NCW has the potential to
> increase warfighting capabilities by orders of magnitude.[192]

NCW is not well understood within a CF context beyond those personnel intimately

involved in developing our own NCW capability, or who work in a limited capacity with US

systems. NCW's use should be cautiously applied in a CF context given that its practices

have not been adopted by the CF to any discernable degree. Until they are, discussing NCW

as it is presently understood will remain simply a general discussion of a current buzzword

that lacks the rigour of an intellectual framework.

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[191] United States, Department of Defense, "Network Centric Warfare." Department of Defense Report to Congress, 2001. Available from http://www.dod.mil/nii/NCW/ncw_main.pdf; Internet, accessed 12 March 2006.

[192] *Ibid.*

Three (or Four) Block War

The Three Block War (3BW) is a method of warfare introduced to the US Marine

Corps in 1997 by the then Commandant, General Charles Krulak to describe modern urban

combat.[193] In a speech to the National Press Club he offered:

> …the landscape upon which the 21st Century battle will be fought….will
> be an asymmetrical battlefield….our enemies will not allow us to fight the
> Son of Desert Storm, but will try to draw us into the stepchild of
> Chechnya. In one moment in time, our service members will be feeding
> and clothing displaced refugees, providing humanitarian assistance. In the
> next moment, they will be holding two warring tribes apart – conducting
> peacekeeping operations – and, finally, they will be fighting a highly
> lethal mid-intensity battle - all on the same day ... all within three city
> blocks. It will be what we call the "three block war." In this environment,
> conventional doctrine and organizations may mean very little. It is an
> environment born of change. Born of technology and weapons that are
> readily available to friend and foe alike. We can …ignore the implications
> of change...or we can learn from history and prepare now for the
> inevitable battles to come.[194]

Within the CF Vision 3BW is a stated fact.[195] The first block is defined as

"warfighting", the second block as "stability operations" and the third block as "humanitarian

operations." Therefore from a CF perspective, 3BW is a method of conflict that needs to be

understood, conceptualized, adopted and integrated into our Joint and specific environmental

doctrine.

There is an additional footnote to 3BW and that is the recent expansion of the term to

Four Block War or 4BW. Interestingly, there are two variants – one from the US Marine

Corps and one from the US Army – both of which developed in 2005. In the Marine's new

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[193] Charles C. Krulak, "The Three Block War: Fighting in Urban Areas." *Vital Speeches of the Day* 64, no. 5 (15 December 1997) [journal on-line]; available from http://proquest.umi.com; Internet, accessed 26 February 2006.

[194] *Ibid.*

[195] Department of National Defence, *Setting Our Course...*Presentation Slide 18.

model, provided by Lieutenant-Generals Mattis and Hoffman; "The additional block deals with the psychological or information operations aspects. This fourth block is the area where you may not be physically located but in which we are communicating or broadcasting our message."[196] The US Army 4BW model, pronounced by Janine Davidson, for "4 Block Operations add *governance, reconstruction,* and *economic development* to the traditional 3-block war."[197] Both models are interesting additions because they reflect the most recent developments within each service in the GWOT and OIF/OEF. At this point, adoption by the CF of either definition would be problematic at best for two reasons. First, they are both developing models, and further refinement is required from each of the services. Second, given the newness of the concept – and the indications that neither appears to be aware of each other – it would be best to see where this potential battle in nomenclature ends. Thus for our purposes, we should not adopt either 4BW at this time, although as professionals we must be cognisant of the fact that the 3BW is continuing to evolve and we need to anticipate changes to the model.

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[196] Mattis, James N. and Frank G. Hoffman. "Future Warfare: The Rise of Hybrid Wars." *United States Naval Institute Proceedings* 131, no. 11 (November 2005). Journal on-line; available from http://www.ngcsuleadership.org/documents/future%20warfare%20hybrid%20warriors.pdf ; Internet, accessed 10 Mar 06.

[197] John F. Agoglia, "Learning to Fight the *Four* Block War: How Commanders Learn 'Non-Military' Jobs. By Janine Davidson, Hicks and Associates, Falls Church, VA." (Lecture, Canadian Institute of Strategic Studies, Toronto, ON, 14 January 2006).

APPENDIX 3 – Three Maps of Failed and Failing States

The Pentagon's New Map:
War and Peace in the Twenty-First Century

Map Available From: http://www.thomaspmbarnett.com/pnm/map_index.htm

Map Available From: http://www.foreignpolicy.com/story/cms.php?story_id=3098

Map of Freedom 2005

Map Legend — Free — Partly Free — Not Free

Map Available From: http://www.freedomhouse.org/template.cfm?page=15&year=2005
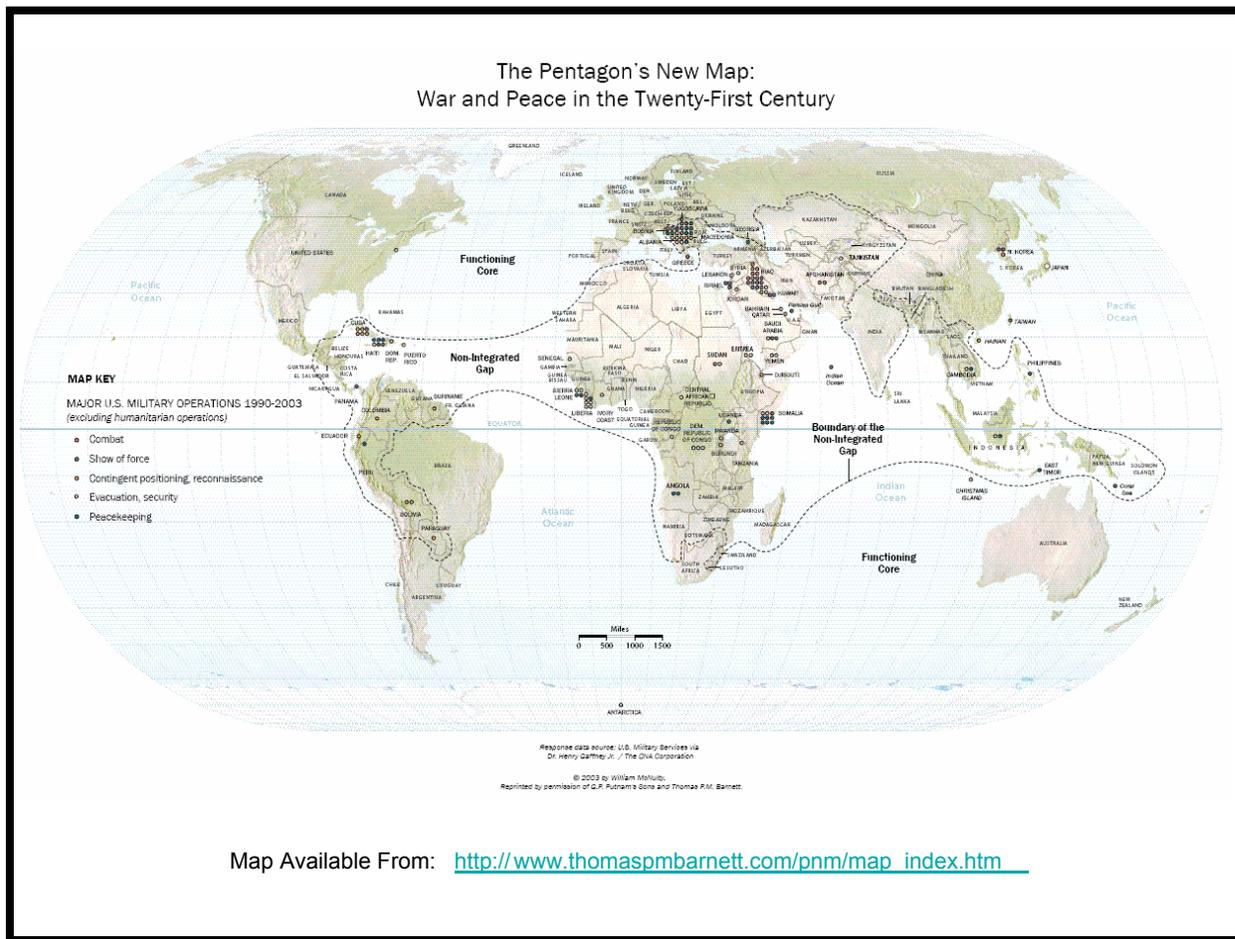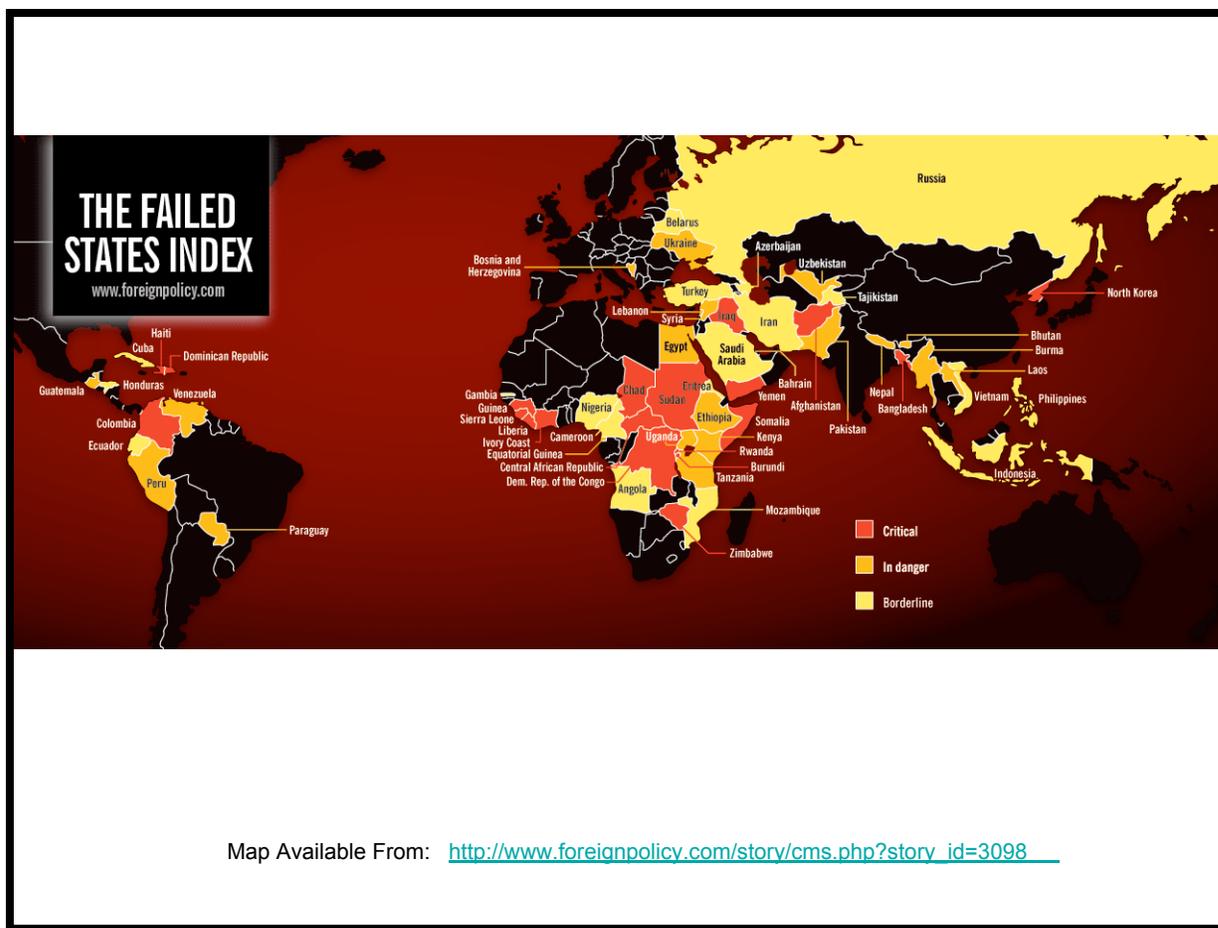
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