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CANADIAN FORCES COLLEGE / COLLÈGE DES FORCES CANADIENNES

CSC 30 / CCEM 30

MDS / DRP

A REQUIREMENT FOR INCREASED EMPHASIS
IN URBAN OPERATIONS WITHIN THE CANADIAN ARMY

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30 April 2004

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Abstract

Enduring Cold War paradigms of high intensity mechanized warfare has restricted the development of modern approaches to urban operations. It is only as a result of recent operations by our western Allies, that these prevailing modes of thought are being re-examined. Unfortunately for the Canadian Army, more so than other western militaries, the legacy of over forty years of Cold War has endured since its end in 1989. Canada possesses limited abilities to field forces that can fight and survive within the urban environment. In order to overcome these challenges and improve existing capabilities it is necessary to comprehend the current status of urban operations capabilities within the Canadian Army through a rigorous examination of the Canadian historical experience and Canadian perceptions of the current operational environment.

Historical review demonstrates that much of Canadian and Allied military urban operations doctrine is rooted in the experiences of urban combat during the Second World War. This historical precedent in combination with the potential threat of a Cold War adversary resulted in a stagnant and unchanging urban operations doctrine. Changing world political, economic, and demographic situations, as well as an increased tempo of operational deployments amongst western Allies following the end of the Cold War, demonstrate that the urban environment is and will remain for the foreseeable future the most likely battlefield environment that the Canadian Army will operate within. It is necessary to comprehend the key physical and political characteristics of contemporary urban areas to understand their impact on military operations.

In the final analysis it will be necessary that Canada re-examine urban operations doctrine in order to ensure it meets the demands of the twenty first century. This review of

doctrine should also encompass an analysis of current Canadian Army capabilities within the sphere of urban operations and provide suggestions for improved capabilities within the Canadian Army. It is only by critically examining these domains and making the necessary changes that Canada will be able to provide relevant forces, capable of effective operations, in the current and future urban battlespace.

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Part I - Introduction

“What is the difference between 1,000 miles and 500 miles? The answer is eight million people.”¹ This rhetorical question is posed to stress the difference between the 1000 square miles of largely open training area at the United States Army National Training Center (NTC) located at Fort Irwin, California, and the more densely populated urban sprawl of Mexico City, a typical urban metropolis. The comparison emphasizes the scale and immensity of the potential tactical and operational problems that might be encountered if a military force was required to operate in an urban environment. It also underlines the fact that the current training focus is skewed away from what is universally acknowledged as the future battlefield environment and clings to a Cold War mentality that emphasizes a fluid open-field conflict environment devoid of civilian personnel and away from the restrictive confines of urban areas.

To a large degree, and until recently, the requirement to change military attention towards the urban environment was lost on the majority of military planners and trainers located within the alliance of American, British, Canadian and Australian (ABCA), and North Atlantic Treaty Organization (NATO) countries. The change in the world security situation away from a Cold War bipolar makeup, in addition to increased economic globalization, and increased urbanization has caused a shift in national and alliance security interests and has resulted in a requirement to re-focus on where and on what type of conflict we will be involved in, in the future.² As will be demonstrated, national interests and alliance

¹Lieutenant Colonel Robert Leonhard, “Sun Tzu’s Bad Advice: Urban Warfare in the Information Age,” *Army*, April 2003: 2/7.

²Major Philip W. Boggs, “Joint Task Force Commanders and the “Three Block War”, Setting the Conditions for Tactical Success,” (Leavenworth Kansas, Command and General Staff College, School of Advanced Military Studies Monograph, 1999-2000), 5-10.

partnerships will draw the Canadian Government and the Canadian military, into areas around the world that are dominated by urban terrain and an increasing urbanized world population. This last fact is emphasized by the similar definitions that exist within ABCA and NATO, regarding urban operations and the tacit emphasis that the civilian population has on military operations in urban areas.

For clarification purposes, the NATO definition of an urban operation will be used throughout this essay, and is defined as “those military and other activities in an area of operations where significant defining characteristics are man made physical structures, associated urban infrastructures and non-combatant populations.”³ This NATO definition is very similar to the United States Army definition of an urban operation. The United States Army also defines an urban area as follows: “an urban area consists of a topographical complex where man-made construction or high population density is the dominant feature.”⁴ A key feature to both of these definitions is that the human landscape is considered just as important as the physical landscape, and this issue will be addressed later in the essay. Despite these very recently refined definitions of urban operations, there was limited real progress in this area until after the September 11, 2001 attacks against the World Trade Center and the Pentagon⁵, which caused a greater awareness of the changing world security situation.

Despite the apparent epiphany that the world environment and threat changed on September 11, 2001, this transformation had been underway for many years. With the United

³NATO Research and Technology Organization, *Urban Operations In The Year 2020*, (Neuilly-Sur-Seine Cedex, France, April 2003), 2.

⁴United States Department of Defence, United States Army, *FM 90-10-1 An Infantryman's Guide to Urban Operations*, April 2001, 1-1.

States emerging as the only real world military and economic super power, ABCA and NATO countries have recognized that future military operations will be taking place predominately in urban centers with an enemy threat that is less conventional and more asymmetric. The asymmetric threat, like the enemy forces that committed the 9/11 attacks, can survive within an urban environment and can mask their activities, limiting western technological dominance. The United States Army and Marine Corps recognized this shift in threat before the 9/11 attacks and had already designed and developed a series of urban terrain complex training sites and commenced a review of doctrine and training methods as early as 1986, that is still underway today.⁶ Relative to Canada, NATO and ABCA have made good use of urban training sites, albeit from a Cold War perspective, although NATO doctrine specifically did not emphasize the importance of this training. The urban environment was always looked at based upon the historical example of the Second World War and a Warsaw Pact massed conventional threat. For ABCA and NATO, Operations Other Than War (OOTW), peace support, and mid-intensity conflict scenarios in urban environments were not well considered. Some new thoughts and approaches towards urban combat have been a focus for NATO working groups, leading to new NATO doctrine in this area.⁷ Key questions arise as to what level of investment and training is sufficient to meet the future need and whether there is value in a collective approach to tackling this problem.

Based upon the most recent literature review and doctrine development, it appears that ABCA and NATO military organizations now realize that urban areas are the prevalent

⁵Hereafter referred to as the “9/11 attacks.”

⁶Captain Richard J Kane, “Training for The Urban Battle,” *Infantry* (November-December 1988): 37.

⁷ NATO, *Urban Operations In The Year 2020*, 2.

battle space for the future.⁸ Despite this fact, there has been a varied and uneven approach to urban operations within Canada, United States, ABCA, and NATO. This has ranged in spectrum from detailed research, procurements, and battalion level experiments as part of the Marine Corps Project Metropolis,⁹ to the production of a Canadian lessons learned pamphlet titled “Training for Urban Operations.”¹⁰ This latter document, with a cover depicting a the Second World War urban battlefield, may be extremely fitting to depict where Canadian thought has rested on this subject over the past decade. To date the Canadian Army has pursued no collective training site, no formalized leadership or individual skills training, no urban focused equipment procurement program, and no urban focused research and development. Urban operations are still considered an environment of choice for future combat and are not considered the environment of necessity, which is reflected in our methodology to pre-deployment operational preparations and training. This flies in the face of Canadian operational experience gained in the 1980’s and 1990’s, as well as the experiences of the United States in Somalia and Iraq and the Russian forces in Chechnya:

Chechen fighters boasted of 50 tanks destroyed. Film footage later showed a massacre: a square full of smoking BMP-2s, an isolated and shattered BTR, rebels firing from the cover of a pair of disabled reactive armour-fitted T-80 tanks, a street full of burned-out T-72 and BMP-2 hulks....An *Izvestia* report claimed that the 131st Brigade’s losses for the day totaled 20 of 26 tanks, 100 of its 120 APCs, and half of its 1,000 men either killed, wounded, or missing in action.¹¹

⁸See United States Department of Defence, *Joint Urban Operations Enabling Concept, Version .86*, (Washington, D.C.: U.S. DoD, 30 January 2004) or United Kingdom, British Army. *Draft The Future Land Operational Concept (FLOC)* (London: ACGS, 22 September 2003) or NATO, *Urban Operations In The Year 2020* or Department of National Defence, Directorate of Land Strategic Concepts, *Future Force* (Kingston: DLSC, 2004).

⁹United States Department of Defence, USMC Warfighting Laboratory, *Battalion Level Experiments After Action Report*, (Quantico: Marine Corps Combat Development Command, February 2001)

¹⁰Department of National Defence, *Dispatches, Lessons learned For Soldiers: Training for Urban Operations* (Kingston: Lessons Learned Centre, 2002).

Thus, despite an apparent realization that urban operations will be the prevalent battle space of the future, the Canadian Army ability to conduct urban operations is no further advanced today, than it was at the end of the Cold War, when the threat picture transitioned to an even greater and growing use of urban terrain by antagonists. The Canadian Army and Allies (ABCA and NATO) will need to invigorate efforts in urban operations to be truly prepared for conflict in the future.

In tackling this issue, this essay will look at the historical background and how previous Second World War military operations and the Cold War threat have shaped our thoughts on urban operations. The very real and growing complexity of the world urban environment will be considered, as well as the likelihood for the increased employment of the Canadian Armed Forces within the urban battlefield of the future as a result of Canadian Foreign policy. Next, the characteristics of the urban battlefield will be considered, focusing on the physical and then the political characteristics of the environment. Then, an overview of the key requirements and force capabilities necessary for success within the urban environment will be considered. As will be demonstrated, urban operations are extremely fluid and the potential of rapid transition between various forms of OOTW and warfighting is not only possible, but also likely. Following this overview, a general report card or assessment will be presented concerning what has been done to date, in Canada, as well as within the United States (ABCA) and NATO. This assessment will demonstrate that Canada has not adapted to the necessity of conducting urban operations in the changed environment of the post cold war era. This apparent inability to change could have serious consequences

¹¹Adam Geibel, "Lessons in Urban Combat: Grozny, New Year's Eve, 1994," *Infantry* (November-December 1995): 24.

to deployed Canadian soldiers. In summation this essay will provide a series of recommendations for improvements based upon the initial analysis and the current identified shortfalls.

Part II – The Historical Perspective and Legacy of Urban Operations

Current Canadian and alliance doctrine has not kept pace with the changing global environment and has been coloured by the experiences and battlefield history of the Second World War and the post-war era within the context of a Cold War threat. The cost in resource material and the intensive manpower required of the Second World War urban battlefields, created a legacy or perception that urban areas must be avoided. This influenced Cold War doctrine and has entrenched post Cold War thought, making it exceedingly difficult to get modern military organizations to embrace the inevitability of the urban battlefield.¹²

A great deal of the phobic aversion to the urban environment by modern militaries can be traced to the influences of battlefield experiences during The Second World War. Most notable and telling were the cataclysmic battles such as the battle for Stalingrad, Russia, the Canadian battle for Ortona, Italy, and the United States Army battle for Aachen, Germany. These battles created lasting graphic images of the time and the cost involved with the capture of a major city centre.

For instance, the battle for Stalingrad and it's eventual capitulation including the loss of the entire German 6th Army of over 250,000 soldiers in February 1943, marked the true turning point in the German invasion of Russia. The actual battle commenced in August

¹²As an example of NATO perceptions see Major B.M. Archibald, "Urbanization and NATO Defence" (Toronto: Canadian Forces Command and Staff College Course Paper, 1979).

1942, and over the next five months resulted in bitter fighting for the industrial city. It resulted in the destruction of major portions of the city and saw, at one point, Russian soldiers holding only a small number of the factories along the Volga River. The Stalingrad front alone employed over five Russian armies and one air army. Continuous small unit conflicts, as well as infiltration and attrition tactics, coinciding with incredible privation by the Russian and German soldiers and the civilian population at large, characterized the fighting. It was one of the most destructive battles of the Second World War and it influenced Russian thoughts on urban warfare for years to come.¹³

For Canadians, the battle for Ortona is probably the most well known Second World War urban battlefield. The clearing of the small town of Ortona became the main focus for 1st Canadian Division, and required the commitment of the entire 2nd Canadian Infantry Brigade (CIB) along with supporting Divisional resources and Divisional supporting attacks. Over a period of seven days, commencing on 20 December 1943, the 2nd CIB cleared the majority of Ortona in vicious house-to-house fighting with companies working on block width frontages.¹⁴ The 1st Canadian Division, which was responsible for most of the fighting in and around Ortona in December 1943, suffered 2,339 total casualties, of which 502 personnel were killed. Twenty percent of all casualties evacuated were due to battle exhaustion.¹⁵

¹³Antony Beevor, *Stalingrad* (New York: Penguin Group, 1998), 145-165, 187-207, 433-440. For further detail on the battle of Stalingrad see, Albert Seaton, *The Russo-German War 1941-45* (London: C. Tinling & Co. Ltd., 1971), 287-306. Also see Heinz Schroter, *Stalingrad*, trans. and ed. Constantine Fitzgibbon (London: Michael Joseph Ltd., 1958).

¹⁴Mark Zuehlke, *Ortona: Canada's Epic World War II Battle* (Toronto: Stoddart Publishing Company, 1999), 255-256, 351-353.

¹⁵Zuehlke, *Ortona: Canada's Epic World War II Battle*, 364-365. For further detail on the battle of Ortona also see, Lt-Col G.W.L. Nicholson, *Official History of the Canadian Army in the Second World War, Volume II, The Canadians in Italy 1943-1945* (Ottawa: Queen's Printer and Controller of Stationery, 1957), 304-339.

For the United States Army, the Second World War battle for the German town of Aachen proved also to be a slow methodical operation that resulted in considerable casualties. Clearing the city, house by house, street by street, took eleven days and effectively halted a planned rapid First U.S. Army advance into Germany. Amazingly, Aachens defence was carried out predominately by inferior quality defenders against a well-organized, well trained and equipped First U.S. Army. American casualties for the lead-up and assault on Aachen reached 6,000, while the defending forces lost almost all of the original 5,000 defenders. By the end of the battle, eighty percent of Aachen had been destroyed or badly damaged.¹⁶

In all three of these historical cases, mass and firepower were used to achieve tactical successes with devastating effects on the infrastructure and civilian populations. A veritable steamroller approach was employed in all three instances and the cost in resources and casualties influenced thinking towards urban operations training and doctrine. This trend continued during the Cold War era, as shown in the Vietnam War and the Israeli incursion into Lebanon. In Vietnam in 1968, in order to retake the city of Hue, United States forces employed fierce house to house fighting supported by artillery, air strikes, and naval bombardment, to retake the city. Major portions of the city were destroyed.¹⁷ During the Israeli operations conducted in Lebanon in 1982, the Israeli Defence Force (IDF) avoided urban areas if at all possible, in a similar manner to the United States military practice at that time. When this could not be achieved, the conduct of heavy bombardments and the

¹⁶Major Robert Price, *et al*, *The Battle for Aachen* (Fort Leavenworth: Combat Studies Institute, Command and General Staff College, May 1984), 97-117

¹⁷James Wirtz, *The Battle of Saigon and Hue: Tet 1968*, in “Soldiers In Cities: Military Operations On Urban Terrain” ed. Michael Desch (U.S. Army War College: Carlisle, October 2001), 81-85. For further detail on this battle see, Keith William Nolan, *The Battle for Hue, Tet 1968* (Novato, CA: Presidio Press, 1983).

significant loss of civilian life and destruction of infrastructure became the hallmark of IDF operations in urban areas.¹⁸ This trend in thinking towards either total avoidance or outright devastation of the urban environment was typical throughout the Cold War.

Following the Second World War, and as a result of the Cold War, the North Atlantic Treaty Organization (NATO) was formed, which emphasized the collective defence of Europe. From 1947 through to the break-up of the Soviet Union in 1989, the threat of a potential ground offensive by Warsaw Pact forces into Europe loomed. Surprisingly, the emphasis given to the requirement for urban operations by both NATO and the Warsaw Pact was markedly different.

For NATO planners, during the Cold War the potential for conducting urban operations was focused at a single threat within the context of Europe, namely the defence of Europe against a large-scale conventional assault. This focus came despite numerous smaller conflicts and military operations conducted in areas other than Europe, by member nations of NATO.¹⁹ NATO policy focused on forward defence and a nuclear deterrent, and remained committed to the concept of a fluid battlefield, despite the rapid urbanization of major portions of the Federal Democratic Republic of Germany. The Second World War experiences of the employment of large military formations, and the massive destruction encountered during urban combat, focused NATO doctrine towards a policy to “avoid or

¹⁸Dov Tamari, *Military Operations in Urban Environments: The Case Of Lebanon, 1982*, in “Soldiers In Cities: Military Operations On Urban Terrain” ed. Michael Desch (U.S. Army War College: Carlisle, October 2001), 37, 43-44, 52. For further information on Israeli operations in Lebanon in 1982 see, Yair Evron, *War and Intervention in Lebanon, The Israeli-Syrian Deterrence Dialogue* (Baltimore: Johns Hopkins University Press, 1987), 105-159. Also see, Richard A. Gabriel, *Operation Peace for Galilee: The Israeli-PLO War in Lebanon* (New York: Hill and Wang, 1984), 191-214.

¹⁹Major J.B. Boileau, “Military Operations In Built-Up Areas: NATO’s Challenge” (Toronto: Canadian Forces College New Horizons Course Paper, 1978), 3.

bypass cities whenever possible.”²⁰ Urban combat was not a major focus for training, or for doctrine development. For example, the 1976 United States Army Field Manual 90-10 for urban operations emphasized avoiding attacking urban areas unless absolutely required to do so.²¹

Conversely, although Soviet doctrine also emphasized a fluid battlefield with the requirement for advances of up to 70 kilometres a day for offensive action, it was understood and expected that major urban combat would have to be conducted. The lessons learned from the Second World War led to very detailed Soviet doctrine related to the requirements and tactics for fighting in large urban areas and led to the development of extensive urban training sites.²² Both NATO and Soviet doctrine for urban operations focused on large-scale conventional conflicts with an understanding that a considerable loss of personnel and resources would ensue. The potential impact of urban operations in OOTW or peace support scenarios was not well considered.

Following the end of the Cold War, which was considered to coincide with the fr, which 9as

substantially, up three fold from the end of the Cold War.²⁴ The United States Army has been involved in Panama, Grenada, Somalia, Haiti, Bosnia, Afghanistan, and Iraq. In addition, the Russians have conducted two major urban operations into Chechnya. Canada has not been isolated from this trend, either. For Canada, over the past 14 years, multiple operations as either a member of a United Nations or a member of a NATO force, have been conducted into Croatia, Bosnia, Kosovo, Somalia, Afghanistan, and Eritrea, to name a few. Each operation has had some form of urban environment to contend with, though predominately in an OOTW, peace support type scenario. The perception that the Canadian military can avoid urban areas or that urban operations are to be conducted by other Nations or specially trained forces is false. The Canadian military has an immediate requirement to be highly proficient in all aspects of urban operations. The potential has always existed that Canadian military personnel would have to fight in an urban environment.

Yet following the Cold War, despite all of the experiences related to dealing with urban operations in a conventional threat environment and in an operation other than war environment, the doctrine and overall focus and emphasis towards this battlespace has failed to adapt. For ABCA and NATO, the focus of resources has been towards the conduct of operations other than in the urban area, and indicates a real lack of emphasis or understanding of the gravity of the situation related to urban warfare, especially given the proliferation of small urban conflicts that member nations have been involved in. For Canada, there has been an absolute non-emphasis in doctrine and concepts, as well as training and equipment for urban combat and we lag years behind our ABCA and NATO

²⁴General Charles C. Krulak, "The Strategic Corporal: Leadership in the Three Block War," *Marine Magazine* (January 1999); available from Marine Corps Web Site <http://www.usmc.mil/cmcarticles>; Internet; accessed 11 April 2003.

counterparts. We are not setting the conditions for our military success, as we are still applying old ideas to an environment that is now and for the foreseeable future, the primary battlespace that we must contend with.

Part III – Why Focus On Urban Operations?

The key issue as to why one must focus on urban operations, and more importantly, why now, must be addressed? As previously discussed, the increased level of urbanization was already identified as a defence issue in the early 1980s, in relation to NATO plans for the defence of Europe, and military operations as a whole.²⁵ Over 25 years has passed and yet, the sky has not fallen. Canada and its allies have not been embroiled in an urban conflict of the magnitudes envisaged in Europe, nor has Canada had significant military losses due to urban conflict in the many other operations conducted by the Canadian military. The key difference that 25 years make is the near exponential explosion in world population and urbanization, and changing world economics towards global and interdependent world markets. There is also a growing disparity between the have and the have not nations, and changing political factors of non-state actors. As a military force, we will go where and when our Government directs, to meet our national strategic needs. To understand these needs, one must consider the changing world landscape, Canadian foreign policy focus, and the threat posed to our forces, now and in the future. Analysis of these factors points to an already existing requirement to have a military focus on the urban environment. These factors are also valid when considering our alliances and have similar impacts on the United States, ABCA, and NATO.

²⁵Boileau, “Military Operations In Built-Up Areas: NATO’s Challenge,”3. Also see Dr James Renier *et al. Military Operations in Built-Up Areas (MOBA)*, Final Report of The Army Science Board, Office Assistant Secretary of the Army (RDA) (Washington: U.S Army, 1979), ii-9.

In the world today, the population growth rate is staggering and is undergoing some amazing transformations. The current annual growth rate is the highest it has ever been, at nearly 90 million people per year and growing. That is an increase of almost three times the population of Canada per year. In perspective, it took 123 years for the world population to increase from 1 billion to 2 billion people and succeeding increments of 1 billion people took 33 years, 14 years, and 13 years and are increasing in speed even further.²⁶ As of 2001, the world population rested at roughly 6.1 billion.²⁷

With the massive population growth has come an amazing trend towards urbanization, especially in the developing world. In 2000, the world's urban population reached 2.9 billion and this level is expected to rise to 5 billion by 2030. This will represent almost 60 percent of the world's population that will be living in an urban environment. Virtually all the population growth expected in the world during 2000-2030 will be concentrated in urban areas and will be absorbed by the urban areas of the less developed regions whose populations will likely rise from approximately 2 billion in 2000 to just under 4 billion in 2030.²⁸ "The most urbanized area in the developing world is Latin America and the Caribbean (already 75 percent and rising to 83 percent), while Sub-Saharan Africa will increase at the most rapid rate, growing from 31 percent urban today to 48 percent urban by the year 2020."²⁹

²⁶U.S. Department of Commerce and U.S. Agency for International Development. "World Population Profile 1996," available from <http://www.wri.org/statistics/us-cen.html>; Internet; accessed 7 March 2004, 7.

²⁷United Nations Secretariat, Department of Economics and Social Affairs, "World Urbanization Prospects: The 2001 Revision Data Tables and Highlights," available from <http://www.google.ca/search?q=World+Urbanization&ie=ISO-8859-1&hl=en&meta=>; Internet; accessed 7 March 2004, 21.

²⁸United Nations Secretariat, "World Urbanization Prospects: The 2001 Revision Data Tables and Highlights," 1-3.

²⁹ U.S. Department of Commerce and U.S. Agency for International Development. "World Population Profile 1996," 26.

The process of urbanization is very advanced in the more developed regions, where 75 per cent of the population lived in urban areas in 2000. The concentration of population in cities of developed regions is expected to increase further so that, by 2030, 83 per cent of the inhabitants of the more developed countries will be urban dwellers. This should be no surprise to Canadians as over one third of the entire population resides in six cities and 79 percent of the population resides in urban centers in this country.³⁰

This should not be just a consideration from a purely military point of view, as currently more than 40 percent of 978 0D 3 nB05 1 Tf0 Tc 4 Tw 12 0 0 82 234.6001 522.12 TmTm(populan



population between 1 and 5 million inhabitants.³⁴ Still, the potential military difficulties in operating in and around a city of 500,000 are no laughing matter.

Clearly, the implications of the rapid population growth and urbanization of the world, especially in the underdeveloped world, pose significant potential problems to any planned military operations in these areas. Even for domestic support operations, the implications are significant. Urban considerations for future combat and OOTW cannot be ignored or bypassed. Urban areas are the centres of gravity and the hubs for social, transportation, economic, and information activities and they are the centres of gravity because that is where the people are.³⁵

As cities grow, so do their complexity, although some characteristics or features are similar regardless of location. Almost all urban areas around the world have a core or central area, commercial districts, industrial areas, high-rise areas, and residential areas. With increased urbanization in less developed areas, there can be considerable urban sprawl and also the development of very large shantytowns supporting extremely large populations. Large urban areas can have very large and very well developed infrastructure and mass transportation networks adding to the complexity of the area.³⁶ A city truly is a system of systems that are co-dependent. Each supporting system must work to ensure the urban area can function; the loss of any system could pose significant potential problems to military

³⁴United Nations Secretariat, "World Urbanization Prospects: The 2001 Revision Data Tables and Highlights,"3.

³⁵Michael Desch, "Why MOUT now?" in *Soldiers In Cities: Military Operations On Urban Terrain*, ed. Michael Desch (Carlisle: U.S. Army War College, October 2001), 3-5.

³⁶Richard A. Ellefsen, *Urban Terrain Zone Characteristics*, (Aberdeen: U.S. Army, September 1987), 5-56 and United States Army, *FM 90-10-1*, 1-1 to 2-9.

planners.³⁷ This is especially true in an operation other than war setting, where public support and compliance will likely be a contributing factor to success of the mission and provision of basic services will impact on public perceptions.

This urban complexity also applies to the makeup of the dwellers, as well as the physical plant of cities. As noted in the introduction, the definition of an urban area or urban operation clearly places emphasis on the population of the urban area as a key-determining factor. One way to define an urban areas' complexity is to look at the social meaning, the physical plant or built form, and the economic status as three intermingling factors that influence the makeup of an urban area. Social meaning includes understanding the ethnic, racial, class, religious, and social / economic status of the population of an urban area and to understand the cultural features that reflect the values and social perception. Built form is the architecture and manmade systems and the relationship to the existing terrain. The economics status of the urban area includes the type of employment, issues of unemployment, and influences on city demographics. Each factor has a symbiotic relationship to the other factors that must be understood in order to allow a reasonable chance of success when conducting operations in an urban environment.³⁸ To better illustrate the potential complexity involved, one must only consider the above noted factors in a city such as Toronto. The variables involved and interactions would be immense.

Another way to better comprehend the human dimension of an urban area is to specifically look at the human architecture of the city. One style of classification system

³⁷Max Neiman, "Urban Operations: Social Meaning, The Urban Built Form, And Economic Function." in *Soldiers in Cities: Military Operations in Urban Terrain*, ed. Michael Desch (Carlisle: U.S. Army War College, 2001), 144-145.

³⁸Max Neiman, "Urban Operations: Social Meaning...", 139-148.

includes defining cities or arranging them into one of three types: hierarchical cities, multicultural cities, and tribal cities. Hierarchical cities are well structured and work on an accepted practice of following the rule of law and taking responsibility for the city, through payment of taxes and accepted forms of behavior, etc. Multicultural cities work based upon the majority of the culture adhering to the rule of law and the established regulations for the city and the groups not identified with the power brokers being coerced into obedience. Tribal cities are those organized based upon bloodlines, not ethnic or religious factors.³⁹ The clear implications to a military force are to understand the urban environment before entering into it. As people form the character of the urban area, this issue of the type of human architecture is critical.

Just as the population and demographics of the world are changing, so are the influences on Canadian foreign policy. With these changes, such as world globalization and threat changes, there will be even greater pressure to have Canadian forces involved in urban operations. This pressure will see Canadians involved in the full spectrum of conflict with increased tempo. Operations will be forced into the urban environment by an adaptive enemy, one who will be focused on avoiding Canadian and alliance strengths. The Canadian army has had some very tangible operational experience in this area but has yet to take the necessary measures to ensure the success of their soldiers in the urban environment.

The document *Canada and the World: Canadian Foreign Policy Review 1995* provides a clear road map for Canadian foreign policy initiatives and priorities, and identifies key themes and influences in the changing world environment. Poverty, inequality, ethnic and religious divisions, and the effects of globalization are highlighted – “the concept of

³⁹Ralph Peters, “The Human Terrain Of Urban Operations,” *Parameters* (Spring 2000): 4-12.

security is focusing on the economic, social and political needs of the individual.”⁴⁰ The document accurately portrays the fact that as a G8 Nation, Canada has benefited from globalization and increased world trade. In turn, Canadian economic security and security in general, is reliant on the stability of trading partners within a multilateral trade system – “our well being and our national interest are inextricably linked to global developments.”⁴¹

To achieve Canadian security, *Canada and The World* reinforces the concept that Canada will remain dedicated to preventing conflict and conducting peacebuilding, primarily through the United Nations. Canada will also maintain and reinforce commitment to regional security organizations and the conduct of preventive diplomacy. We will maintain our close ties with the United States in NORAD and with the United States and other allies in ABCA and NATO.⁴² Canadian economic self interest and a national pledge to regional security around the world, virtually guarantees some form of national commitment whenever trouble occurs. The destabilizing effects of rapid population growth and rapid urbanization in the developing world will likely see Canadian commitments into major urban centers in Africa, Asia, and the Middle East.

The same pressures that influence Canadian involvement overseas will also impact on our allies and alliance members of the developed world. Canada will remain committed to maintaining close links with its allies and this issue is a focus of the somewhat dated 1994

⁴⁰Department of Foreign Affairs and International Trade, *Canada In The World: Canadian Foreign Policy Review* 1995, (Ottawa: Canada, 1995), 3.

⁴¹Foreign Affairs, *Canada In The World...*, 10-11.

⁴²*Ibid*, 24-33. Peace building can be defined as the process of reinforcing efforts to build peace through economic and institutional rehabilitation, which sustains the efforts of local populations and of the international community to resolve conflict.

Defence White Paper.⁴³ As described in the Canadian Army strategy document, *Advancing With Purpose*, a key focus for our army will be the ability to be interoperable, primarily with American and ABCA allies, as well as selected NATO allies. This underpins the concept that Canadian foreign policy will be reliant on defence coalitions to be viable.⁴⁴ This focal point on interoperability with primarily the United States also indicates where our focus will be, with the tacit understanding that this same capability may potentially draw the Canadian government and the armed forces into conflict areas to support alliance interests. Where our alliances go, we may follow. Therefore, to successfully achieve interoperability and an ability to effectively participate in coalition missions, we must have a capability at least on par with our allies when conducting operations in an urban environment.

As Canada foreign policy remains dedicated to being involved and having an influence in various regions of the world, the Canadian Armed Forces can expect to be involved in more and more OOTW as part of a foreign policy commitment. This increased tempo will cause considerable strain on our forces and will necessitate a force that is ready to go at a moments notice. The Canadian involvement in Haiti in March 2004, with little to no advance warning, is only a taste of things to come. Even when committed to an operation other than war scenario, the outcome is often varied and unpredictable. As noted in *Conduct of Land Operations – Operational Level Doctrine for the Army*, OOTW can be expected to proceed, follow, or run concurrently with warfighting operations.⁴⁵ There are no guarantees,

⁴³Department of National Defence, *1994 Defence White Paper* (Ottawa: Canada Communications Group, 1994).

⁴⁴Department of National Defence, *Advancing With Purpose: The Army Strategy* (Ottawa: Canada Communications Group, 2001), 21.

⁴⁵Department of National Defence, B-GL-300-001/FP-000 *Conduct Of Land Operations – Operational Level Doctrine For The Canadian Army* (Ottawa: DND 1998), 114-115.

and forces employed into urban areas must be ready for all types of urban conflict situations on all deployments.

This is not a new concept and is reflective of USMC General Krulak's concept of the three-block war. The general concept behind the *three-block war* is that transnational factors and the globalization of markets will lead to more military operations being conducted in the future to support a national strategic aim of global stabilization. When conducted, these OOTW scenarios will be intermingled with mid-intensity conflict situations, as the host nation will likely be in turmoil. Soldiers will likely find themselves conducting humanitarian, peace support, and war fighting activities on the same mission. Furthermore, the mission may not be linear, in that military operations may have to transition back and forth between all three types of missions as the operation progresses. To achieve success on this potential battlespace, soldiers and leaders will need to be resourceful, independent minded, and extremely well trained.⁴⁶ "Our potential opponents in the next century" asserted Major-General Robert Scales, "will have thought long and hard about how to attack our weakness."⁴⁷

Just as the world population and demographics are changing so are the threats presented to Canada and its allies. A key element is the change from bipolar world of the Cold War, to an American led unipolar world with regional instability. It is also an international environment where non-state actors can influence nations through acts of terrorism. There are no military peer competitors in the developing world to the United States and allied western powers. To offset western dominance, nations or non-state actors

⁴⁶Krulak, "The Strategic Corporal: Leadership in the Three Block War."

⁴⁷Major-General Robert Scales Jr., "Adaptive Enemies: Dealing With The Strategic Threat After 2010," *Strategic Review* (Winter 1999), 14.

will resort to asymmetric threats to achieve their aims, such as acts of terrorism or combat within environments that negate western military technological dominance. The asymmetric threat poses the key method to offset western military dominance and the urban battlefield is the environment where technological superiority is negated the most.⁴⁸ The urban area allows an asymmetric threat to have political cover and to blend with the local population. The urban area also provides the possibility of a network of monetary and resource support for ongoing and future military action. As a historical example, the Palestine Liberation Organization (PLO) used the tactic of blending into the civilian population against the IDF during the Israeli incursion into Lebanon in 1982. The PLO avoided outright military conflict in favour of an asymmetric approach and terrorist attacks against the IDF. IDF military responses to these attacks virtually guaranteed ongoing PLO support within the local populace.⁴⁹

As seen from an American perspective, the urban environment will allow a potential enemy to set the conditions and tempo for battle: “The current consensus is that urban areas tend to negate technological advantages of US forces, thereby forcing them to adopt unfamiliar or low tech methods of waging war. Enemy warriors operating in urban areas can engage in a wide variety of asymmetric methods to slow the tempo of military operations, create large numbers of US casualties, and, through a variety of barbaric means, attempt to break the will of the American people to continue the fight.”⁵⁰ United States forces in Somalia also observed this in 1993 when an apparent simple operation resulted in 19 United

⁴⁸Desch, “Why MOUT now?”, 3-8.

⁴⁹Tamari, *Military Operations in Urban Environments: The Case Of Lebanon, 1982*, 43, 45-46.

⁵⁰Robert Hahn and Bonnie Jezior, “Urban Warfare and the Urban Warfighter of 2025” *Parameters* (Summer 1999), 75.

States personnel killed and over 90 wounded against a low-tech but aggressive adversary located in a densely urbanized area of Mogudishu. The result was the eventual withdrawal of United States forces from Somalia.⁵¹ We must expect potential enemies to be observant, and adaptive and to take advantage of any perceived weakness or vulnerability.

Canada, ABCA, and NATO allies live in the same political reality as the United States when it comes to the negative impact of a protracted conflict or military casualties. Military operations are planned on tight timelines and the employment of technology and precision strike weapons is seen to mitigate risk. . This favours an enemy that engages in asymmetric warfare and has time as an advantage: “[western] fixation on precision strike makes it possible to win simply by avoiding defeat. Tenacity, patience and a willingness to sacrifice are effective counters to a high-tech foe who has no stomach for protracted conflict. The technological demands of hostile forces whose only objective is to avoid losing are most certainly modest.”⁵²

Although the asymmetric threat to Canada and its allies is dominant in many of the operations being conducted around the world today, the potential for a conventional threat confrontation is still very real. In a conventional fight, the urban area also has the impact of diminishing western technological advantages. As experienced by Russian forces in Chechnya, the likelihood of conventional urban combat is real, with the potential for horrific consequences if forces are not prepared. The key factor to take-away from the two major incursions by Russian military forces in Chechnya is that a determined, comparatively lightly equipped force, can fight an effective battle against a mechanized army and that urban

⁵¹Desch, “Why MOUT now?”, 6.

combat cannot be avoided. In 1994, the Russians deployed a large but ill-prepared military force into Grozny, with the result being major losses to combat units and deadly house to house combat that destroyed major portions of the city. Then in 1999, the Russians attempted to avoid a repetition of their 1994 experience and tried to drive the rebels out of Grozny through an extensive aerial bombardment. “Because the Russians so feared urban combat, and were so determined to avoid it, they were largely unprepared for it when it came.”⁵³ Although the Russian military plan for the second incursion into Chechnya did take into account the lessons of the first conflict, their analysis was flawed, as they believed they could circumvent the urban battlefield. In the end, the Russian army was forced to fight a major urban ground offensive in Grozny in 1999 and again they were unprepared to fight a conventional urban battle. The result was major losses to personnel and equipment with immense devastation to the city.

After action reports from Operation Iraqi Freedom (OIF) also indicate that the enemy largely avoided conflicts in open terrain and tried to center the battle in or at the periphery of urban areas. The United States Forces encountered conventional and asymmetric threats largely centred on the urban areas during the advance on Baghdad. Again, conventional urban combat was inevitable.⁵⁴

This is not a revelation to Canadian forces personnel who have been deployed overseas over the past two decades. Urban operations have been extensive, coinciding with

⁵²Major-General Robert Scales Jr., “A Sword with Two Edges: Manoeuvre in 21st Century Warfare,” *Strategic Review*, Vol 27, No 2 (Spring 1999), 49.

⁵³Olga Oliker, *Russia’s Chechen Wars 1994-2000: Lessons From Urban Combat* (Santa Monica: Rand Corporation, 2001), 81-86.

⁵⁴Anthony H Cordesman, *The Lessons Of The Iraq War: Main Report. Eleventh Working Draft* (Washington: Centre For Strategic Studies, 2003), 267.

the increased operational tempo of the late 1980s and 1990s, albeit from an exclusively OOTW perspective. As noted earlier, urban areas are where the people are and the location of the seats of power. Protection forces and other peacekeeping or peace support missions necessitate interaction and proximity to the people being supported and this has been in the urban areas. Each Canadian mission to Bosnia, Croatia, Kosovo, and elsewhere, has entailed extensive work in urban areas.

Typical of such a mission would be the 1st Battalion, Royal Canadian Regiment (1RCR) deployment to Bosnia-Herzegovina in 1998, as part of the NATO Stabilization Force (SFOR). In this role, 1 RCR enforced the conditions establish in the Dayton Peace Accords, and was intimately involved in personnel protection and security issues centered on or near key urban areas. In fact, the NATO military camps are all located in or near the urban settlements in Bosnia-Herzegovina. On 24 April 1998, Charles Company, 1 RCR, was operating at the town of Drvar, and became involved in a major crowd confrontation and riot that resulted in serious injury to some of the civilian minority and civilian United Nations workers of the town. In addition, damage to equipment and infrastructure was considerable. All of this occurred within a two-hour window. Over the course of the day, five separate warning shots were fired. At the time the company had no non-lethal weapons, pepper spray, or protective equipment to meet the threat posed against them of an unruly mob.⁵⁵

This is but one example of the experiences that Canadian forces personnel have been exposed to while deployed overseas. There are many others, such as United Nations activities in Cyprus, Srebrenica (Bosnia), and Eritrea. This author's experiences in Croatia in 1994 and Kosovo in 2000 are also telling. Nearly all major incidents and company level

operations conducted on both missions occurred in or near an urban setting. In both cases, urban operations preparations conducted during pre-deployment work-up training was not apportioned sufficient time or resources to realistically call it a training priority. This is not an indictment of the leadership of that time, so much as an indicator of how the Canadian Forces and specifically the Army rates the importance of this training. Canadian pre-deployment training plays lip service to the special training needs of forces deployed on operations in urban environments. As for the 1 RCR mission in Drvar in 1998, although pre-deployment training did include rules of engagement issues for crowd confrontations, the force training included limited exposure to urban tactics, techniques, and procedures and limited collective training in an urban training setting.⁵⁶ In 1998, this last point would have been hard to accomplish, as no real training site existed at the time in Canada. Since 1998, there have been limited improvements.

In conclusion, the rapid world population growth rate and coinciding increase in urbanization has changed the face of the planet that we live and interact in. The most rapid changes in this area are occurring in the underdeveloped nations located in the Middle East, Asia, and Africa. For Canada, globalization has tied our national economy to international trading partners and has made world stability an issue for Canadian economic security and growth. Our government remains committed to world peace and involvement with the United Nations and our allies, in order to maintain international stability. This will see an

⁵⁵Richard M. Swain, *Neither War Nor Not War – Army Command in Europe During The Time of Peace Operations: Tasks Confronting USAREUR Commanders, 1994-2000* (Carlisle: U.S. Army War College, 2003), 1-19.

⁵⁶Major Howard Coombs, telephone interview with author, 15 March 2004. “During our pre-deployment training for Bosnia our focus was general combat operations in the Petawawa training area – we were not well prepared to deal with the dilemma posed by the urban security operations that we had to conduct in Drvar.”

increased tempo and military involvement in urban areas around the world. This fact will hold true for Canada as well as the United States, ABCA, and NATO allies.

Our military forces will be deployed into urban areas predominately on OOTW missions, yet the spectre of conventional urban combat will always be there. The three-block war is currently, and likely will always be, a reality. Canada has extensive experience with forces deployed into urban areas and on urban operations, based upon our operational experiences over the past two decades. These experiences have been largely ignored in the current training and preparations of our soldiers for overseas deployments. This fact must change if the Canadian Forces are to remain committed to ensuring our soldiers are properly trained for the battlefield of the future.

Part IV – Military Operations: The Complexities of The Urban Environment

The general characteristics of an urban area make it an extremely unique and complex battlefield environment. An urban city is composed of the “systems that make advanced civilization possible. It is the location of the political, economic, legal, informational, and infrastructure networks by which a society functions.”⁵⁷ Therefore, any military force entering into operations in the urban environment, whether in a warfighting or OOTW role, must understand the physical and political characteristics of the urban environment and their impact on operations, in order to have the ability to influence them. The physical aspects of cities present a three dimensional terrain that pose unique problems when conducting operations, maintaining command and control, and ensuring inter-visibility between forces. The close terrain also results in predominately close combat that places unique stressors on

⁵⁷United States Department of Defence, *Joint Urban Operations Enabling Concept...*, 5.

combatants. It presents an environment that is physically and mentally demanding and it can cause a rapid deterioration of fighting ability for soldiers operating in this setting for extended periods of time. It is an environment that also allows the enemy the advantage of hiding amongst the population or leveraging the effects of the urban environment, which generally diminishes western technological advantages and weapons overmatch by shortening engagement ranges and reducing battlefield visibility. From a political perspective, cities also present the enemy with a possible support base and political cover. Urban areas present the potential of large ethnically and linguistically diverse populations and contain politically sensitive infrastructure that can also pose unique challenges. Furthermore, issues of both collateral damage and the influence of the international media will significantly increase the complexity of urban operations. In general, cities are the centres of gravity for countries of the world.

The infrastructure of urban areas present a three dimensional environment that is unique, varies from block to block, and presents a myriad of dilemmas in how operations are conducted. One characteristic of urban combat is that battles are decentralized activities, generally planned at higher levels but won at lower levels, which necessitates a high level of soldier proficiency in urban operations and corresponding training requirements. When attacking or defending an urban area, the key to success will depend on the ability to control or influence operations, which at times will become very decentralized, and historically, has been characterized by close violent firefights.⁵⁸ The key to success in these circumstances is the quality of the soldier. It was recognized as early as 1987 that for the urban environment, “personnel training and motivation continue to be at least as important as equipment or force

⁵⁸United States Army, *FM 90-10-1*, 1-17 to 1-18.

balance factors.”⁵⁹ The emphasis on decentralized operations was noted by General Krulak, USMC: “The inescapable lesson of Somalia and of other recent operations, whether humanitarian assistance, peace-keeping, or traditional warfighting, is that their outcome may hinge on decisions made by small unit leaders, and by actions taken at the lowest level.”⁶⁰ This is fully understood by the United States Marine Corps where all personnel, regardless of their occupational specialty, conduct Basic Urban Skills Training (BUST).⁶¹ This requirement was re-emphasized by returning units from OIF, although many of the units did not achieve this basic standard prior to deployment.⁶²

The three dimensional urban environment also presents unique tactical problems that are different from other battlefield environments and warrants specific training for all levels of command. During Marine Corps experimentation, it was discovered that prior to receiving leader specific urban operations training, the majority of the Senior NCOs and NCOs did not have the highly developed tactical skills to effectively do their jobs in the urban battlespace.⁶³

The complex terrain of urban centres also impacts on perceptions of the battlefield and can quickly lead to disorientation. The Marine Corps has demonstrated that operations in a large-scale MOUT site alter perceptions, command and control, and situational

⁵⁹R. McLauren, Paul Jureidini, and David McDonald of Abbott Associates Inc., *Modern Experiences In City Combat* (Aberdeen: U.S. Army Human Engineering Laboratory, 1987), 38.

⁶⁰Krulak, “The Strategic Corporal: Leadership in the Three Block War.”

⁶¹United States Department of Defence, USMC Project Metropolis, *Experiment After Action Report, Briefing Note, n.p.*

⁶²United States Department of Defence, USMC Warfighting Laboratory, *Trip Report, Visit to Selected 1st Marine Division Units Who Participated In Combat Operation In Operation Iraqi Freedom, 21 July – 8 August 2003* (Quantico: USMC Combat Development Command, August 2003), 2.

⁶³ USMC, Marine Corps Warfighting Laboratory, *Military Operations on Urbanized Terrain (MOUT) Battalion Level Experiments: Experiment After Action Report* (Quantico: USMC Combat Development Command, February 2001), 6.

awareness.⁶⁴ Force protection, accurate navigation, and battlefield visibility become critically important in these circumstances. Effective reconnaissance forces and situational awareness capabilities are a potential solution, yet as noted during Marine Corps experimentation and operational deployments, these are areas that have serious shortfalls, now and in the foreseeable future.⁶⁵ “Human assets such as reconnaissance, sniper and CI/HUMINT teams are required because the urban landscape is naturally a human intensive environment.”⁶⁶

The size and complexity of the terrain and the large populations in urban centres also impose significant difficulties for navigation, coordination, lines of communication, and force protection issues. Dispersed forces in nodal defences or those forces moving to make contact with the enemy or friendly forces will have great difficulty in coordinating within an urban area that is characterized by limited visibility and engagement ranges. Lines of communications are, therefore, vulnerable and force protection becomes paramount – specifically for logistics elements that must effect resupply to deployed forces. The Marine Corps noted during OIF that extended lines of communications are most vulnerable in the urban area. Combat service support convoys must be able to defend and fight in the urban environment.⁶⁷

⁶⁴USMC Project Metropolis, *Experiment After Action Report, Briefing Note, n.p.*

⁶⁵Russell Glenn, *Honing the Keys To The City* (Santa Monica: Rand Corporation, 2003), 91-98. An accounting of current Marine Corps deficiencies in reconnaissance force capabilities and equipment

⁶⁶Major Bichson Bush, “Intelligence, Surveillance, and Reconnaissance (ISR) Support To Urban Operations” (Leavenworth: US Army Command and General Staff College, 2001), 37.

⁶⁷United States Department of Defence, *MOUT Experiences During Operation Iraqi Freedom*, 1st Marine Corps Division (Reinforced), After Action Briefing Notes.

The urban area also presents the soldier with a war with limited fields of view and ranges and a requirement for rapid decision and engagement times, creating significant stress on the soldier.⁶⁸ Target differentiation is critical and the potential for fratricide is very real. An urban area may exacerbate the likelihood of combat stress due to physical and emotional isolation on the battlefield (line of sight limitations), three-dimensional dangers inherent to the environment (from below and above ground threats), delayed or unavailable medical care, and an increased perception of vulnerability.⁶⁹ Due to restricted lines of sight caused by building structures, engagements are normally less than 100 meters, with the majority being less than 25 meters: “The 50 meter battlefield: It is 3D and fast.”⁷⁰ Soldiers and leaders require exceptional mental agility and robustness to operate in this type of environment⁷¹

In the urban environment, soldiers also experience a constant sense of vulnerability and a constant sense of surprise. Due to the close proximity and uncertain location of the enemy there is a constant threat of attack and a general sense of vulnerability when moving or exposed outside of buildings. Marine Corps experimentation has demonstrated that the majority of casualties occur when troops are in the open.⁷² The perception of always being in close proximity to the enemy requires continuous high levels of alertness that are extremely

⁶⁸United States Army, *FM 90-10-1*, 1-15 to 1-22.

⁶⁹Captain Myron Almond, “Stress and Urban Military Operations: Preparing For It, Dealing With It During Active Operations” in *Ready For Armageddon* Russell Glen *et al* (Santa Monica: Rand Corporation, 2002), 54-56.

⁷⁰SFC Mathew Eversmann, “The Urban Area During Support Missions Case Study: Mogadishu (The Tactical Level 1)” in *Capital Preservation: Preparing For Urban Operations In The Twenty-First Century*, ed. Russell Glenn (Santa Monica: Rand Corporation, 2001), 424.

⁷¹Russell Glenn “Introduction” in *Ready For Armageddon* Russell Glen *et al* (Santa Monica: Rand Corporation, 2002), 14.

⁷²USMC, *Military Operations on Urbanized Terrain (MOUT)*..., 29.

fatiguing to maintain both individually and collectively.⁷³ For example, during OIF one infantry company cleared the 13-story Ministry of Oil Building, which included more than 1000 separated door entries. This operation took over four and a half hours to complete. This was finished while under the constant threat posed by a potential enemy residing in the facility.⁷⁴ Thus, soldiers need to be extremely fit, both physically and mentally, to withstand these rigors for prolonged periods of time.

The constantly changing situation, the changing threat posture and tasks, as well the changing complex terrain, can also lead to stress inducing situations for soldiers. U.S. Army experiences during OIF operations indicate that the force posture shifted numerous times, back and forth between warfighting and OOTW tasks. Because the initial focus of OIF was warfighting, limited workup training was conducted with regard to OOTW. This produced considerable strain on the soldiers, as they were unprepared for OOTW scenarios, including urban operations.⁷⁵ In urban battles, section commanders and Senior NCOs are critical to success, but correspondingly, will experience the greatest strain and fatigue.

The three dimensional aspect of the urban area also creates communications problems and reduces the effective ranges of existing weapons systems, limiting the current overmatch advantage that exists in open terrain. “About 90 percent of all targets are located 50 meters or less from the identifying soldier.”⁷⁶ In the urban battlefield, the soldier is also

⁷³Russell Glenn, *Combat In Hell: A Consideration of Constrained Urban Warfare* (Santa Monica: Rand Corporation, 2002), 21.

⁷⁴USMC, *Trip Report, Visit to Selected 1st Marine Division Units...*, 19.

⁷⁵United States Department of Defence, Department of the Army, *Operation Iraqi Freedom After Action Review Comments*, After Action Report, Team C, 3rd Battalion, 15th Infantry Regiment, Task Force 1-64 Armour, 24 April 2003, 2-3.

⁷⁶United States Army, *FM 90-10-1*, 1-17.

currently faced with communications and visibility restrictions, which reduce situational awareness. In the near term, technology will likely improve existing communications capabilities but not herald major improvements: “Infantry operating in cities find that the ‘urban canyon’ obstructs their communications. Radio, which relies on line-of-sight for transmission, is impeded by interference from steel and structures. Radios that are small and light enough to be carried by infantry rely on VHF and UHF bands, and near future devices will predominately be improvements on these technologies”⁷⁷ To counter this limitation, the urban battlefield requires decentralized decision-making and initiative at the lowest levels.

Urban terrain also makes it hard to employ the full range of weapon systems and enablers available in a truly joint force. Although the United States demonstrated an ability to use modern air power to effectively strike targets in urban areas with minimal collateral damage during OIF, there were some serious restrictions. Targets often required illumination by ground units and many times the angles of attack precluded certain types of aircraft in participating. Therefore, a great deal of coordination and training is required at all levels to ensure the success of these weapon systems in the urban battlefield.⁷⁸ To achieve this coordination and training focus, a joint operating concept will be needed to ensure all strengths are utilized, but specifically air power.

In addition to the aforementioned physical characteristics, there are numerous political features that pose a dilemma when conducting operations within an urban area. The enemy in the urban environment may be conventional in organization, but may employ non-conventional or asymmetric approaches in conducting their attacks. Asymmetric attacks

⁷⁷Aidan Harris, “Improving The Infantry’s Inventory: Can New Technologies Transform Military Operations In Urban Terrain?” (Lancaster, UK: University of Lancaster: March 2003), 17.

⁷⁸Cordesman, *The Lessons Of The Iraqi War: Main Report...*, 215-216.

could include terrorist attacks, electronic warfare, criminal activity, guerrilla warfare, and environmental attacks.⁷⁹ The enemy will attempt to blend with the population making target differentiation difficult and may result in restrictive rules of engagement. The asymmetric threat will also have highly developed support mechanisms and will be well organized. This was recognized by the Israeli Defence Force (IDF) who noted that the asymmetric threat posed by the PLO was well planned “...to evade a military decision by assimilating the organizations and combatants in urban areas” and “... to change the regular military organization into an amorphous, subversive, and evasive structure in the cities and towns.”⁸⁰ In all cases, the asymmetric threat will try to impose casualties and exact political fallout for the conduct of military operations. This has not been without precedent, as demonstrated by both the Beirut bombing of a Marine Corps barracks and the loss of American soldiers in Somalia. These incidents resulted in the eventual withdrawal of the world’s “superpower” from these areas.⁸¹ To counter this threat, forces will need the support of the local population and aggressive information operations will be critical to achieve this support. Forces will also need an ability to interact with the local people.

The large concentrated population of civilians, with potentially ethnically and linguistically diverse backgrounds, also poses considerable problems regarding non-combatant casualties and target differentiation - “...the urban battles of the future will place the joint force commander under tight constraints to avoid unnecessary collateral damage and

⁷⁹United States Army, *FM 90-10-1*, 1-6.

⁸⁰Tamari, *Military Operations in Urban Environments: The Case Of Lebanon, 1982*, 41.

⁸¹Desch, “Why MOUT now?”, 3-8. Bernard E. Trainor, *Military Operations in an Urban Environment: Beirut, 1982-84* in *Soldiers In Cities: Military Operations On Urban Terrain*, ed. Michael Desch (Carlisle: U.S. Army War College, October 2001), 128-130.

to limit the number of non-combatant casualties.”⁸² This will require soldiers that are incredibly well trained and disciplined and who fully understand their environment and the people they are dealing with. “Urban environments also include systems and patterns of activity that make up the city.”⁸³ Soldiers must be able to accurately recognize normal activity within the urban environment, in order to influence it, and to differentiate the threat personnel within the civilian population. This is particularly important when dealing with an asymmetric threat that will provide only brief opportunities for engagement and an enemy that may try to mask their activities through the use of non-combatants. “Human behavior and large group dynamics are difficult to understand on a mass scale and even more important to control.”⁸⁴ Larger cities also work based on unrestricted movement of the populace. It will be extremely hard to impose security restrictions and have some form of control that does not impact on the smooth functioning of the urban area and these factors must be considerations in planning operations in urban areas.

The urban environment also presents a large number of politically sensitive physical targets or objects that will necessitate niche force capabilities and training. To achieve success in this type of urban environment, precision attack capabilities are required. However, to date “... precision engagement has been difficult in urban areas owing to the dense, amorphous, vertically extended nature of the structures, the requirement to avoid unnecessary collateral damage and the need to protect non-combatants.”⁸⁵ Additionally, as decisions regarding target engagements are often executed at the section and soldier level

⁸²Hahn and Jezior, “Urban Warfare and the Urban Warfighter of 2025,” 76.

⁸³Department of Defence, *Joint Urban Operations Enabling Concept...*, 5.

⁸⁴*Ibid*, 6.

⁸⁵Hahn and Jezior, “Urban Warfare and the Urban Warfighter of 2025,” 76.

during urban operations, a high degree of training at the lowest levels is required to ascertain what is politically and culturally sensitive and what should or should not be engaged.

Individual soldier competency is a theme is emphasized again and again, as a key to success in the urban battlefield. Overall a principle challenge for all forces operating in the urban environment “... is that, in most cases, destruction of the environment itself is in direct contradiction to the larger strategic objectives. An approach that saves a city by destroying it, is unacceptable.”⁸⁶ Precision attack and effective training can mitigate against needless destruction.

The international media will also be a dominant factor in the urban battlespace during war or OOTW. There will be the potential for media focus and scrutiny down to the soldier level. Actions by individual soldiers could have the potential to impact or influence political decisions. Therefore, each individual soldier has the potential to influence not only public opinion in the urban area but also at home - “in the urban environment there is more than one public.”⁸⁷ Soldiers and Senior NCOs will be placed in demanding situations under the full scrutiny of the world press. Again, media training will be essential to ensure that soldiers, NCOs, and Officers are ready for this environment: “Most importantly, these missions will require them to confidently make well-reasoned and *independent* decisions under extreme stress – decisions that will likely be subject to the harsh scrutiny of both the media and the court of public opinion.”⁸⁸

⁸⁶Department of Defence, *Joint Urban Operations Enabling Concept...*, 3.

⁸⁷*Ibid*, 10.

⁸⁸Krulak, “The Strategic Corporal: Leadership in the Three Block War.”

In summary, the urban battlespace presents significant physical and political characteristics that pose noteworthy difficulties on the impact of military operations in the urban terrain and make it an extremely unique battlefield setting. The physical characteristics include a three-dimensional threat environment, with limited lines of visibility, very short engagement ranges and quick decision times. The urban area also creates an environment where poor communications are the norm and inter-visibility and situational awareness are adversely affected.

With regard to the political characteristics, the urban area presents an ethnically and linguistically diverse environment with the serious potential for non-combatant casualties. The urban environment also provides the enemy with the potential to mask movement and the opportunity to engage targets at optimum short ranges, mitigating western technological superiority. The urban area also provides political cover for an asymmetric threat and the potential for support bases and support networks melded into the civilian landscape. The likelihood of politically sensitive targets and the effects of the omni-present media are also key characteristics that add to the complexity of the urban battlefield.

Overall these characteristics have a significant impact on the conduct of urban operations. This environment seriously diminishes western technological overmatch capabilities and necessitates a highly skilled, highly trained, and well-supported military force. Soldiers must be able to deal with the impact of the media and must be able to interact with the personnel within the environment. The urban area also creates significant problems for command and coordination necessitating decentralized control, which places a great deal of stress on soldiers and leaders. The military force must also be task tailored to the mission with the right mix of personnel and force capability, including precision attack

ability and an ability to achieve information dominance. Finally, the characteristics of the urban area, especially cultural and linguistic profiles, point to an interagency or inter-departmental approach as the best means to positively influence the urban environment.

Part V – A Report Card: Current Perspectives on Urban Operations

As has been demonstrated, the urban environment will present an area of expanded military operations for the Canadian Forces and its allies, in the foreseeable future. It is the battlefield environment that imposes the greatest strain on soldiers physically and mentally, and also places high demands on soldier proficiency and competency. It requires forces that are well trained, well equipped, and well supported for the task. The likelihood of increased operations in urban areas has been realized for some time, yet the level of preparedness for this battlefield environment between Canada and its allies is varied. In comparison to Canada, the armed forces within ABCA and also NATO have taken various approaches to the problem and have placed far greater resources and emphasis towards preparedness for urban combat than Canada. In short, a general comparison between Canada and its key allies regarding current emphasis towards doctrine, force capabilities, training policies, and emphasis on research and development demonstrates that, despite an apparent realization that urban operations will be the prevalent battle space of the future, the Canadian Army is no further advanced today, than it was at the end of the Cold War. Furthermore, this review will demonstrate that there is still a long way to go within ABCA and NATO, and that each organization will need to invigorate efforts in urban operations to be truly prepared for conflict in the future.

When considering ABCA initiatives in the area of urban operations, one really needs to focus primarily on the United States, and then the United Kingdom (UK). As the only

remaining world superpower, the United States is the de facto leader in concepts for the conduct of future military operations. The United States Department of Defence concept Joint Vision 2020 has initiated incredible changes to United States force structure and the way it conducts war. The United States military is truly moving towards becoming a joint force that is focused towards achieving information and technological superiority over potential enemies. Compared to a Cold War image of itself, the United States military will become smaller, lighter, and more lethal in the process.⁸⁹ This transformation has also influenced the armed forces of the ABCA countries, causing them to adopt force structures that promote the same general concepts and principles.⁹⁰ ABCA countries are moving to maintain interoperability and battlefield relevance in relation to the United States military. Therefore, comparisons to the United States military are truly the measuring stick used to gauge effectiveness.

The United States Military

The United States military has made some amazing transformations and has revolutionized their approach to conducting Urban Operations. Over twenty years ago, the United States military commenced a process of revitalizing urban operations training facilities and training practices. United States Army and Marine Corps designed and then developed a series of urban terrain complex training sites.⁹¹ These sites were aimed at improving soldier proficiency, primarily for a NATO defense scenario.⁹² They also

⁸⁹United States Department of Defense, *Joint Vision 2020*, (Washington D.C.: U.S. Government Printing Office, 2000).

⁹⁰DLSC, *Future Force*, 47-59.

⁹¹Kane, “Training for The Urban Battle,” 37

⁹²McKenna MOUT site in Fort Benning Georgia is an excellent example. This site is designed in the fashion of a small German village. Based on visit conducted by the author in April 2003.

commenced a process of doctrine and equipment capability reviews. The process has been characterized by initially separate and slow approaches by both the United States Army and The United States Marine Corps (USMC). The focus was at a very low tactical level with limited ability to influence concepts on a joint scale. According to Lieutenant Colonel Charles Taylor, "... the Army and Marine Corps have been de-facto co-leads in developing initial urban tactical requirements; but they lack the funding, authority and responsibility for joint operational requirements or integration."⁹³

Both the Army and Marine Corps approaches have produced some extremely worthwhile results and have positively influenced the capability of the United States soldier or marine to fight and win in the urban environment. The Army approach has led to literature reviews and analysis, which have resulted in new doctrine and development.⁹⁴ It also spawned the development of improved weapons and capability of the soldier and tactical leader in the urban environment, as demonstrated at the Advanced Concept Technology Demonstration (ACTD MOUT). Additionally, the Army approach has resulted in detailed experimentation within the US Army towards the creation of tactics techniques and procedures (TTP) up to the battalion level.⁹⁵ Current United States Army doctrine and manuals are being revamped and the importance of having units that are effective in the urban environment has been re-emphasized.

⁹³Lieutenant Colonel Charles Taylor, "Military Transformation For Warfare In The 21st Century: Balancing Implications Of Urban Operations and Emerging Joint Operational Concepts" (Carlisle: U.S. Army War College, April 2002), 19.

⁹⁴As an example, the series of publications produced by Russell Glenn and The Rand Corporation effectively chronicles the thought, concepts and improvements sought within the United States military towards an improved urban operations capability.

⁹⁵United States Department of Defence, *Advanced Concept Technology Demonstration, Military Operations Urbanized Terrain (ACTD MOUT)*, September 2000.

Within the USMC, the approach towards the study, analysis, and conduct of urban operations has been extremely comprehensive. The importance of the urban environment to future USMC operations is highlighted by the fact that the Marine Corps has instituted urban environment specific training for all members of the Marine Corps.⁹⁶ Basic Urban Skills Training (BUST) was also recommended by returning units from OIF as necessary pre-deployment training for all Marine Corps personnel on future operations.⁹⁷ The USMC Warfighting Laboratory has completed a series of detailed projects that included experimentation up to battalion levels in complex terrain. Two key lessons learned out of Marine Corps experimentation were that the majority of problems encountered in the urban battlespace can be rectified through better training, and that to win in the urban battlefield, you need to operate as a combined arms team.⁹⁸ Based upon this experimentation, some analysts believe that it demonstrated an overall lack of preparedness for the urban battlefield by the USMC: “Project ‘Urban Warrior’ and ‘Metropolis’ have demonstrated the Marine Corps is not prepared for high intensity fights.”⁹⁹ The Marine Corps is continuing experimentation towards improved weapons capabilities, improved training practices, and improved tactics techniques and procedures in the urban environment.

As identified in 1999 by Professor Russell Glenn, a Rand analyst recognized as an authority on urban operations, the largest impediment to truly harnessing the capabilities of the United States military and focusing effort into the urban battlefield is the lack of a Joint

⁹⁶USMC Project Metropolis, *Experiment After Action Report, Briefing Note*.

⁹⁷USMC, *Trip Report, Visit to Selected 1st Marine Division Units...*, 2.

⁹⁸ Captain R.C Piddock USMC, “Is the Marine Corps Ready for the urban Battle of the Future?” *The Urban Operations Journal*, Internet; Accessed 11 April 2003.

⁹⁹Piddock, “Is the Marine Corps Ready for the urban Battle of the Future?”

Urban Operation Doctrine and consideration of the urban area above the tactical level.¹⁰⁰ The United States Department of Defence approach to this problem was initiated in 2000 and resulted in a number of strategic level documents directed at addressing the issues and focusing more thought, research, and resources towards urban operations.¹⁰¹ To that end, the United States have developed the USECT conceptual framework (*Understand, Shape, Engage, Consolidate and Transition*) that is designed to assist the operational commander in planning and conducting joint operations in a complex urban environment. The ABCA participating countries and NATO have adopted this same concept.¹⁰² A Joint Urban Operations Enabling Concept has been completed, yet there is still more work to be done. A primary concern for the United States Military is, "...that there is no overarching joint operational concept or joint command, control, communications, computers, intelligence, surveillance, and reconnaissance architecture that defines an end-to-end combination of actions and information flow for how joint force elements, systems, organizations, and tactics integrate to achieve dominance in urban environments."¹⁰³

Despite all of the apparent improvements and successes within the United States Military, the United States Army Combined Arms MOUT Task Force (CAMTF) report has identified numerous shortcomings in the current approach to urban operations training. A notable deficiency is that the current United States Command and General Staff Course has

¹⁰⁰Russell Glenn, *We Band Of Brothers: The Call For Joint Urban Operations Doctrine*, (Santa Monica: Rand Corporation, 1999), 53-57.

¹⁰¹Taylor, "Military Transformation For Warfare In The 21st Century...",¹³

¹⁰²Joel Resnick, "New Thinking on Joint Urban Operations," Institute For Defense Analysis (Alexandria: Joint Advanced Warfare Program, 2003), 9-18.

¹⁰³Taylor, "Military Transformation For Warfare In The 21st Century...",¹⁴

implemented no urban operations training nor does it conduct exercises towards this requirement, indicating a clear lack of emphasis at senior command levels. There are insufficient training sites in the United States and where available, these training facilities do not facilitate training above unit level. There are also limited simulation capabilities available for training. Also, there are no urban operations conducted at the National Training Center. The CAMTF report also indicates that existing training sites are too small and do not reflect the necessary diversity and complexity to suitably train all types of forces (both heavy and light) for this environment. Nor are there sufficient live fire capabilities. It is identified that all military units need to be urban operations capable, yet the Army as a whole represents a spectrum of capability with heavy forces having limited exposure to urban operations training. Another deficiency is that current weapons and ammunition are not optimized for urban operations, nor is there a great deal of research ongoing in this area - “existing weapons and munitions effects against structures are not well understood by combat developers, units, and leaders across the force.” Finally, detailed reviews and updates are required in all training manuals regarding the conduct of urban operations.¹⁰⁴

Many of these observations are echoed in the after action reports from OIF. Overall, units found that the lack of urban training facilities for battalion level and above were a deficiency in preparations for operations. Units identified that increased training in urban operations is required, as the ‘unexpected event’ is prevalent in the urban area. In addition, units recognized that more personal protection equipment and better communications are required at the low tactical levels, and that there is also a requirement for access to better maps and intelligence. There were also noted deficiencies in interagency cooperation and

¹⁰⁴United States Department of Defence, *Combined Arms MOUT Task Force (CAMTF) Resource Requirements and Training Strategy Updated Interim Report*, 1 April 2001, B-3, B-6, B-7, B-8, F-1 and G-1

planning. As well, human intelligence, target designation, control of unmanned aerial vehicles, and aircraft support in the urban area were all identified as areas to be improved upon.

These are amazing observations given the investment and effort that has been placed into improving United States military capabilities over the past 20 years. The after action reports and CAMTF report highlights the gulf that exists between current capabilities and required capabilities that will ensure success in the urban battlefield. The United States Department of Defence, Joint Urban Operations Enabling Concept accurately identifies that: “Our current training doctrine and facilities are insufficient to provide the right conditions to prepare the joint force for the urban operations mission. The joint force cannot afford to learn the tactics, techniques and procedures required for urban operations while joined in battle in this environment.”¹⁰⁵

The United Kingdom

The British Army has always had a significant interest and investment in urban operations based upon their security operations conducted in Northern Ireland as well as their commitment to NATO defence. They have made extensive use of training facilities to meet their training needs and have placed a great deal of emphasis on urban operations training prior to deployments in Northern Ireland.¹⁰⁶ They possess the largest dry urban training facility in NATO and possibly within ABCA. They have invested in infrastructure, training, and equipment specifically dealing with urban operations.

¹⁰⁵Department of Defence, *Joint Urban Operations Enabling Concept...*, 17.

¹⁰⁶Michael Dewar, *War In The Streets*, (Devon: David& Charles PLC, 1992), 157-180.

In looking to the future, the British Army has identified that urban operations will become an unavoidable battlefield environment that must be prepared for. In the most recent draft of the army operating concept, ‘*The Future Land Operational Concept (FLOC)*’, four core concepts are identified as the basis to the future UK force structures. The UK Army will be composed of agile forces, will be able to conduct effects based operations, will have directed logistics, and will possess networked enabled command.¹⁰⁷ A key emphasis within the plan is the recognition that urban operations will dominate the future battlespace. To that end, a specific sub-concept has been developed to describe the UK Army approach to Urban operations titled *Development of the Urban Operations Capability of the Land Component – A Future Land Operational Concept Sub-component*.

This sub-concept emphasizes that future urban operations will predominately occur in OOTW settings. As well, research has identified a large capability gap for UK forces in their ability to successfully conduct urban operations.¹⁰⁸ It has been noted that the British Army must be able to fight in the urban battlespace and must become joint to effectively achieve this aim.¹⁰⁹ They have adopted the USECT conceptual framework that was initiated in the United States and also adopted by NATO. As well, they have adopted some of the emerging operational level approaches developed by NATO.¹¹⁰

¹⁰⁷UK, *Draft The Future Land Operational Concept (FLOC)*, 6-7.

¹⁰⁸United Kingdom, British Army, *Draft Development of the Urban Operations Capability of the Land Component – A Future Land Operational Concept (FLOC) Sub-component*, (London: ACGS, 22 September 2003), 3.

¹⁰⁹UK, *Development of the Urban Operations Capability of the Land Component...*, 4.

¹¹⁰*Ibid*, 8-10.

This British army operating concept goes on further to identify that a critical training deficiency exists within the British armed forces and that increased training in urban operations must be conducted to better meet the operational requirement. “The scope and frequency of training must be expanded.”¹¹¹ The concept recommends that urban operations training at all levels from recruit level to above unit level, should be mandated and should include training for all specialist trades. It identifies the requirement for commanders to be regularly exercised in the most demanding role, which is identified as warfighting within the multidimensional landscape within a combined arms grouping. Furthermore, the British Army concept emphasizes that continuous training and experimentation will be required to refine and improve training, techniques, and procedures (TTPs) as new technologies are inserted into unit inventories. Improved ranges and training structures will be required to meet the training demand and current deficiencies in soldiers’ equipment must be addressed. The British Army has also identified that success in the urban battlefield depends on a balanced and capable force. Force packages will be based upon a combined arms team, tailored and augmented for the task – especially towards ISTAR capability imbedded at all levels of command.¹¹²

Overall, the British Army has identified that despite their past emphasis in training in urban operations, their force capabilities and training practices do not meet the expected operational requirements of the urban battlefield. They recognize that the deficiencies must be rectified as soon as possible to ensure that their soldiers and leaders are ready for the expected challenges of this environment. They have acknowledged a requirement for

¹¹¹*Ibid*, 12.

¹¹²*Ibid*, 12.

improved equipment capabilities at the tactical levels and an improved situational awareness (ISTAR) capability at all levels. Key to this improvement in capability is an emphasis in training at all levels and all elements of their Army and a requirement for a joint approach to this issue.

NATO

Historically, NATO has always had the threat of large-scale conflict and equally the potential for the conduct of urban operations. Although training for urban operations was not the major emphasis in training regimes in the Cold War, it was still conducted across the NATO land force. Major training sites were constructed and maintained to achieve an overall general proficiency in urban operations in a conventional setting. Locations in Hammelburg, Hohenfels, and Bonnland, Germany permitted collective training to battalion level.¹¹³

In recognition of the changing world environment, NATO has also renewed interest in urban operations, especially regarding the possible projection of NATO forces beyond Europe. To this end, NATO has established working groups towards achieving new concepts and to assist member countries in achieving the necessary force capabilities to fight in the urban environment. To maintain a manoeuvrist and unifying approach in dealing with the urban environment, NATO has adopted the USECT conceptual framework, that was initiated in the United States, to allow operational commanders to address the complexities of the urban environment: “The USECT framework is designed to assist the operational commander in a complex urban environment.”¹¹⁴ NATO has worked towards developing

¹¹³For a dated account of NATO training facilities see Department of National Defence, *Combat Training Centre Tactics Seminar: Fighting In Built-up Areas* (Gagetown: CTC, 1990).

¹¹⁴NATO, *Urban Operations In The Year 2020*, 10-14.

operational concepts that move away from the traditional siege, destruction, and frontal steamroller attack methodology to more manoeuvrist ideas such as nodal isolation, precision strike, nodal capture and expansion, soft point capture and expansion, and segment capture and expansion.¹¹⁵

Overall, NATO analysis has identified that, despite a previous urban operation capability, significant deficiencies in force capabilities would impact on the potential success in any future operation and that re-emphasis and focus on urban operations is required. The NATO working group key recommendations include the development of joint doctrine, enhancement to training facilities and capabilities, improvement to sensor and information gathering capabilities, improved leadership training and exposure to urban operations throughout a soldier's military career.¹¹⁶ “Specific training for urban areas is considered the best short-term improvement available to NATO Nations”¹¹⁷

An overall reoccurring theme between the ABCA countries and NATO, is that the urban environment is considered to be the prevalent battle space in the future and that past practices are insufficient to meet future needs. A requirement for frequent, better, and improved training has been emphasized as the primary mechanism to see drastic and immediate improvements to force capabilities in the urban environment. This must include improved training for all elements of the force and training conducted beyond the tactical levels. Correspondingly, improved training facilities, improved equipment capabilities, better situational awareness, and an approach that deals with the urban environment across all

¹¹⁵*Ibid*, 18.

¹¹⁶*Ibid*, 36.

¹¹⁷*Ibid*, 35.

spectrums of conflict, has been recognized as essential required improvements. Given the current status of ABCA and NATO armies, how does Canada compare?

Canada

The Canadian Army is currently well behind its ABCA and NATO counterparts with regard to preparedness for the conduct of urban operations. Over the past decade, there has been limited progress towards establishing sufficient doctrine, training concepts, training facilities, and force capabilities and equipment to meet the need for urban operations now and into the future.

Canada possesses no real updated doctrine or concept of how we will operate and fight in the urban environment. As identified by Brigadier-General Glenn Nordic, the former Commander of 1 CMBG, in preparation for a major brigade training event on urban operations in 2001, it was realized that no definitive Canadian doctrine exists, necessitating a literature review of other allied practices.¹¹⁸

In fairness, the Canadian Army did embark on a review of urban operations requirements with the formation of the Urban Operations Working Group (UOWG). The now defunct UOWG was formed to review the status and future Army requirements in the urban battlespace and confirmed in a 2002 final report that a common focus and oversight was lacking within the Army in urban operations. In particular, it noted that no doctrine or tactics above the company level existed within the Army, that training was limited, that no plans existed to update training needs or introduce urban related lessons into officer or non-commissioned officer training, and that formal direction on equipment purchases to meet the

¹¹⁸National Defence, *Dispatches...*, 35.

tactical level for junior officers and non-commissioned officers.¹²² Canada also remains active in various international working groups.¹²³ As noted by Major Wyatt, “the Canadian army is plugged into activities and initiatives of our allies through various international working groups, although our credibility is somewhat lacking based upon the level of representation.”¹²⁴

In addition to doctrine and training, Directorate Land Strategic Concepts (DLSC) has completed some research on the subject of operations in the urban battlespace, but this research has focused on future technology capabilities as an answer to the problems associated with this environment. The future army experiment, *Operations In The Urban Battlespace*, was aimed specifically at exploring new concepts and technologies that will allow the Canadian Army to fight and win in the urban environment, to gather insights into future army concept development, and to assist in guiding technological investigation and research. The results of the experiment are replete with examples of how future technologies could enhance combat capability and situational awareness, if these technologies became available and practical for the urban soldier. In essence, technology has been framed as the panacea to urban operations capability. However, technology alone will not solve all the issues related to conducting urban operations. A doctrine is required that describes how

¹²²Major Sean Wyatt, principle staff officer for urban operations within Directorate of Army Doctrine (DAD), telephone conversation with author, 16 April 2004.

¹²³As an example see Department of National Defence, DLSC Memorandum 1000-1 (OR Advisor) *Trip Report: Joint Urban Warrior 04, 21-26 March 2004*, dated 29 March 2004. Joint Urban Warrior is a partnership between the United States Marine Corps and United States Joint Forces Command to move forward on joint and combined urban operations concept development and experimentation. Other ABCA and NATO countries are encouraged to participate.

¹²⁴Interview conducted with Major Sean Wyatt on 16 April 2004.

Canadians should fight in this environment at the tactical and operational levels; a doctrine that still does not exist.¹²⁵

This summary of recent events paints a somewhat rosier picture on the current status of urban operations within the Canadian Army than actually exists. As noted by Lieutenant-Colonel Bernd Horn, from DLSC: “just because there was a working group doesn’t mean we have done anything – it’s just words – another committee that has stated what we know to be true and then tables a report that has no effect ... Nothing has changed. Only three individuals within the army staff are responsible to look at urban operations for today’s army and the future army. All staff action on urban operations is completed as secondary duties. The two lieutenant-colonels are too busy with primary functions, so the issue falls to one staff officer to actually try to work the issue on top of his own primary responsibilities.”¹²⁶ As noted by Major Wyatt only ten percent of his work effort goes towards urban operations, which remains only one area for which he maintains responsibility.¹²⁷

Even with the proposed publication of two new urban operations manuals, there will still remain a doctrinal void within Canada in comparison to the documentation and doctrine within the United States military. There still appears to be no real impetus to develop doctrine in this area even though there is a plethora of experience from past and present urban operations to draw upon for needed lessons and guidance for new doctrine. As an example, most recent results from OIF and Marine Corps experimentation indicate a need for combined arms teams to fight the urban battlefield and to have vehicles that can withstand

¹²⁵Department of National Defence, Directorate of Land Strategic Concepts, *The Future Army Experiment: Operations In The Urban Battlespace*, (Kingston: DLSC, 2002) 4.

¹²⁶Lieutenant-Colonel Bernd Horn, Deputy Director, DLSC, telephone conversation and e-mail with author, 16 April 2004.

close-in RPG attacks.¹²⁸ Yet, in accordance with the most recent Canadian Army force employment concept paper *How the Canadian Army Will Fight* this is somewhat ignored, with the elimination of tanks from the Canadian inventory and with the assertion that the new Light Armoured Vehicle (LAV) is “highly suited for discreet tasks in medium to high intensity conflict, in either open or urban terrain.”¹²⁹ This assertion is contestable to say the least. Further, as other armed forces are moving towards a joint capability to deal with this environment, the Canadian Armed Forces appears to be remaining functionally “stovepiped,” with no overarching joint concept.

Urban operations are not a training focus for the Canadian Army and have been largely ignored. There was an apparent focus of attention into urban operations in the early 1990s, which died away and only recently has resurfaced as a priority after a ten-year hiatus.¹³⁰ Although an all arms urban operations course is planned to commence in September, this training will not be mandatory across the army or even across the combat arms and is specifically focused at the low tactical level, reinforcing a concept that urban operations is still considered a battlespace that can be avoided; a battlespace that does not require a focused effort across the entire Army. The Canadian Army has no formalized training or courses on urban operations for the Army as whole, as compared to the Marine Corps BUST training package. Urban operations are not emphasized during combat arms basic officer training. The infantry corps is the only combat arms trade that conducts urban

¹²⁷Telephone interview conducted with Major Sean Wyatt on 16 April 2004.

¹²⁸Department of the Army, *Operation Iraqi Freedom After Action Review Comments*, 2.

¹²⁹Canadian Armed Forces, Draft Force Employment Concept Paper: “How The Canadian Army Will Fight.” (Kingston: DLSC, 2004), 20.

¹³⁰Canadian Armed Forces, *Combat Training Centre Tactics Seminar: Fighting In Built-up Areas*.

operations training as part of basic officer and soldier training and as part of junior leader training. A maximum of two and a half days of training is devoted to officer and non-commissioned officer training which hardly qualifies as a major emphasis in training.¹³¹ In addition, it is not a joint focus for training or discussion on any courses conducted at the Canadian Forces College. As previously demonstrated, it has also been largely ignored in pre-deployment training for overseas operations.

When urban operations training is conducted, it has occurred largely out of individual initiative, typified by Exercise Urban Ram 2001 conducted by 1 CMBG.¹³² Although the Canadian Army does intend to create an urban battlefield training site as part of the new Canadian Manoeuvre Training Centre (CMTC)¹³³, the most recent findings from OIF would indicate that this would not be enough. Skills degradation alone and the need to have all soldiers able to fight and survive in the urban environment necessitate more than just one training facility and more than just periodic training focused at the combat arms trades only.¹³⁴ Unlike the United States and Britain, the Canadian Army has not translated increased training emphasis to equal increased preparedness in the future urban battlefield. The current approach to training will not guarantee training across the Army or a common

¹³¹Major Graham Blackman, Staff Officer responsible for urban operations training within Directorate of Army Training (DAT), telephone conversation conducted with author, 16 April 2004.

¹³²National Defence, *Dispatches...*, 35.

¹³³The CMTC is a training facility designed, in a fashion, after the United States Army National Training Centre (NTC). It will be allow the conduct of Battle Group training in an instrumented battlefield environment that will allow detailed feedback and after-action review to participants. NATO, *Urban Operations In The Year 2020*, 38.

¹³⁴Major David Blacker, Cath Skowronski, and Geoffrey Cooper, "Operational Evaluation of The Middle East Area of Operations", *Land Warfare Conference*, (Adelaide: Centre for Army Lessons, October 2003), 11.

standard of capability. This training approach is also typified by the status of available training facilities.

In comparison to other ABCA and NATO nations, Canadian Army training facilities in which to conduct urban operations training, are sadly a mockery of what is truly required to train an effective and modern army in urban operations. While ABCA and NATO nations have enjoyed training facilities that could accommodate up to battalion level training, Canada for the longest time made due with no facility. Currently, the only real training site that exists is located at CFB Petawawa and was completed not as an Army project but as an area or local initiative. It is indicative of the relatively low emphasis that the Canadian Army has placed on having forces adequately prepared for the urban operations environment. As noted by the Commanding Officer of the Tactics School, the largest impediment to instituting urban operations training within the Combat Team Commanders Course is the lack of an adequate training site.¹³⁵

Finally, equipment and force capabilities requirements at the tactical and operational levels have been largely an after thought in Canada. There is no omnibus or overarching concept for equipment procurement specifically dedicated for the urban environment, although the UO WG identified it as a major requirement to meet any future Army urban operations capability.¹³⁶ Although some experimentation has been conducted to date, it has been focused on concepts related to situational awareness and information dominance in the urban environment; this is but one aspect of the equipment required for this battlespace.¹³⁷

¹³⁵Telephone interview conducted with Lieutenant-Colonel Pat McAdam on 16 April 2004.

¹³⁶DAD, *Report By The Urban Operations Working Group...*, 12-13.

¹³⁷DLSC, *The Future Army Experiment: Operations In The Urban Battlespace*, 4.

No real effort has been made to translate any of the lessons learned from Marine Corps experimentation or United States Army analysis into equipment requirements for the Canadian army.¹³⁸

Overall, the Canadian Army has lagged well behind its counterparts in ABCA and NATO. Although some initiatives are about to be instituted, such as the development of new training manuals and an all arms urban operations course, these initiatives will fall well short of making the Canadian military ready for urban operations. Canada remains with no real updated doctrine, training philosophy, training facilities, or established equipment program to meet the needs of the urban environment. Although some analysis has been completed into future army requirements for the urban battlespace, we remain no more advanced today than we were at the end of the Cold War.

Part VI – Way Ahead

“Urban problems, in the end, tend to require very human solutions.”¹³⁹

Across the entire spectrum of conflict, complex terrain, particularly urban operations will be the terrain of choice in the battlespace of the future. The urban area represents one of the most complex and demanding battlefield environments and requires forces that are well trained, well equipped, and well supported for the task. Canadian foreign policy virtually guarantees that the Canadian military will be deployed into the urban environment at some time in the future. As other ABCA and NATO armies have advanced in urban operations capability the Canadian Army has virtually stood still and has made no real progress, less

¹³⁸ United States Department of Defence, *Advanced Concept Technology Demonstration, Military Operations Urbanized Terrain (ACTD MOUT)*, September 2000.

¹³⁹ Department of Defence, *Joint Urban Operations Enabling Concept...*, 8.

some individual activities that lack common focus, common oversight and that remain at the very low tactical level.¹⁴⁰ Canada currently has no updated doctrine, training philosophy, training facilities, or established equipment program to meet the needs of the army in the urban environment. The Canadian Army is no further ahead today than it was at the end of the Cold War.

To make improvements to Canadian urban operations capability, there will be “no single solution that will overcome the challenges posed by urban operations.”¹⁴¹ Just as it has been identified by the United States Department of Defence, a joint and holistic approach is required to meet the demands of the urban environment.¹⁴² To correct the existing shortcomings, the Canadian Army needs a disciplined and logical plan of action. First, the Army must improve overall training and skills capability in urban operations throughout the Army. This must include the development of urban training facilities and also training regimes to meet the tactical and higher level training requirements. It must also meet the training needs across the spectrum of the Army, to include the combat and support trades. Next, the overall force capability within the Army must be improved. Improvements must be made to information collection and intelligence capabilities including improved sensors and use of unmanned aerial vehicles (UAV) and an improved ability to interact with indigenous people. The Army will also require improved soldier systems and force protection, precision attack capability, as well as robust, focused, and protected logistics. Following that, a strategic procurement plan must be developed to guide acquisition of the necessary tools and

¹⁴⁰DAD, *Report By The Urban Operations Working Group...*, 2

¹⁴¹*Ibid*, 12

¹⁴²Department of Defence, *Joint Urban Operations Enabling Concept...*, 13.

technologies to meet the operator needs within the urban environment. Finally, a change in mindset within the Army must occur that will place the requirements for the successful conduct of urban operations as the focal point or premier objective that must be met by the Army. To achieve this the Army needs an overarching operating concept for urban operations, a re-prioritization of staff effort, and an increased participation and leveraging of coalition efforts. These requirements are plainly evident when considered against the previously discussed complexities of the urban battlefield and the current status of Canadian Army capabilities for the urban environment.

The first step is to improve the overall individual skills capability of the Canadian Army and to promote those skills essential to succeed in the urban environment. As previously mentioned, the largest impediment to achieving this goal is the current lack of urban operations training facilities within Canada. The initial measure taken must then be the development of adequate training facilities to meet the training need. This is not a failing specific to Canada. A lack of adequate training facilities was also identified as a shortcoming in after action reviews from OIF, which identified a requirement for training facilities above unit level. A need also exists to have facilities that resemble foreign urban environments.¹⁴³ Further identified during OIF after action reviews is that many units were initially hesitant to enter into operations in towns bigger than the training facilities in the United States – the facilities that the units were accustomed to, reinforcing the need for facilities to meet the training need at or above the battalion level of training. There were also differences in tactics used between the Army and Marines when dealing with large built up areas, causing some conflicts in coordination, and highlighting the requirement for a joint

¹⁴³United States Department of Defence, *Emerald Express (EE 03) Joint Urban Operations: Operation Iraqi Freedom Insights and Observations – Tab C, Summary*, 15 December 2003, 2.

doctrine and established and agreed upon tactics techniques and procedures, which will surely be developed once adequate training facilities are provided.¹⁴⁴

The key lesson re-learned is that soldiers must train as they will be expected to fight. To meet this need, effective training facilities that replicate, as close as possible, the conditions of large urban areas must be achieved. The facility envisaged for the Canadian Manoeuvre Training Centre (CMTC) should be large enough to meet at least battalion training needs and each brigade training area should also have an urban facility to meet a combat teams training requirements.¹⁴⁵ The Combined Arms Collective Training Facility, a concept design by the United States military that is intended to meet the training needs for urban operations throughout the spectrum of conflict, is a good example of a site that would meet Canadian training needs up to the combat team level for each brigade location and at the Combat Training Center.¹⁴⁶ Overall, the Canadian Army needs as a minimum a battalion level training site at the CMTC and three training sites that can meet combat team training needs, one at each of the remaining key training facilities.

Concurrent with the urban operations facility development there must also be improved training within the Army, to include training at the tactical and operational levels. As identified by United States Army Rangers, the top four training priorities for readiness in the urban battlefield are physical fitness, marksmanship, medical training, and battle drills.¹⁴⁷

¹⁴⁴Cordesman, *The Lessons Of The Iraqi War: Main Report...*, 282.

¹⁴⁵CMTC is a facility akin to the National Training Center (NTC) within the United States and will provide instrumented field exercises, testing, and feedback to units.

¹⁴⁶Department of Defence, *Combined Arms MOUT Task Force (CAMTF)...*, F-1.

¹⁴⁷CSM Michael Hall and SFC Micheal Kennedy, "The Urban Area Support Missions Case Study: Mogadishu (Applying The Lessons learned – Take 2)" in *Capital Preservation: Preparing For Urban Operations In The Twenty-First Century*, ed. Russell Glenn (Santa Monica: Rand Corporation, 2001), 541-573.

In this case, battle drills are those tactics, techniques and procedures related specifically to the urban environment. The Army as a whole must be extremely fit and physically ready for the rigors of urban operations. This must include all elements of the army, as Combat Service Support units are just as vulnerable, if not more so, in urban combat. After action reports from OIF and Operation Enduring Freedom (OEF) in Afghanistan both emphasized the importance or primacy of fit soldiers to meet the rigors of urban operations and operations in mountainous regions.¹⁴⁸

It is not just basic skills and fitness that are important. We must also have soldiers and leaders that are quick thinking and innovative. “Urban Operations demand at least as much creativity in approach as do operations in other environments.”¹⁴⁹ Commanders must be presented with tactical problems that will test their cognitive skills:

They must also be capable of responding to the rapidly changing, multidimensional situational awareness requirements that will dominate urban operations. Leaders must be taught to use flexible and non traditional information sources and decision making approaches when confronted with the challenges of the urban environment. Adaptability will be the key leadership trait and must inculcated at every level of command.¹⁵⁰

These skills then need to be put to the test with rigorous and regular training and practice of developed tactics, techniques, and procedures in the urban environment. As identified through experimentation and analysis, “the key to short-term readiness is better

¹⁴⁸United States Department of Defence, United State Army, *Infantry Conference Summary, Fort Benning Georgia, 8-11 September 2003*, Fort Bennong Georgia, Infantry School, n.p, n.d.

¹⁴⁹Russell Glen, *We Band Of Brothers: A Call For Joint Urban Operations Doctrine*, (Santa Monica: Rand Corporation, 1999), 26.

¹⁵⁰Hahn and Jezior, “Urban Warfare and the Urban Warfighter of 2025,” 80.

doctrine and training, not technological fixes.”¹⁵¹ Therefore, the Canadian Army can make immediate progress by emphasizing urban operations in current training regimes. The development of a core urban operations training package similar to the USMC BUST training, that is mandatory for all personnel within the Army, would go a long way to ensure that a basic skills capability is obtained. This could also be achieved by instituting the equivalent urban operations training into common basic army training for officers and common basic training for soldiers and then reinforcing this training on all career and leadership training. Whichever approach is taken, the key is that all personnel within the Army must be trained and capable to operate effectively within the urban environment.

As identified by Russell Glenn: “Training in actual urban areas is essential for the operational-level commander, his staff, and those at tactical levels.” Yet, he has also noted that the construction of large-scale facilities to train formations in urban operations may not be feasible. Computer simulation may be a viable alternative to ensure planning processes at all levels of command, but predominately the operational levels, are ready for the urban environment.¹⁵² Marine Corps units that participated in OIF opined that an urban operation computer assisted exercise (UCAX) would have been invaluable to ensure that battalion level and higher operating procedures were sound and well practiced before deploying to Iraq. Only one battalion had the opportunity to participate on this type of CAX training prior to deploying.¹⁵³ Simulation for urban operations is another aspect of training that must be vigorously and regularly pursued by the Canadian army. At present, there is a limited

¹⁵¹Glenn, *We Band Of Brothers: The Call For Joint Urban Operations Doctrine*, 51.

¹⁵²Russell Glenn, *Combat In Hell: A Consideration of Constrained Urban Warfare* (Santa Monica: Rand Corporation, 2002), 24-25.

¹⁵³USMC, *Trip Report, Visit to Selected 1st Marine Division Units...*, 9.

capability nested within the current Joint Computer Assisted Training (JCAT) simulation, used by the Canadian Army.

As the Canadian Army moves towards an improved urban operations capacity, it must do so ensuring that equipment capabilities are established that will allow the Army to operate effectively in the urban environment. Although good doctrine and effective training will initially see greater improvement in army abilities to operate in the urban environment, the Army cannot progress beyond these improvements without certain improved capabilities. Key to this is the ability to achieve information dominance on the battlefield and this equates to an ability to effectively collect information and intelligence and to interact with the indigenous population.

Information dominance and data fusion is a key theme for future army capabilities.¹⁵⁴ These capabilities must be tailored to the effects of the urban environment. To achieve success a commander and staff must be able to see and reach all available information. The military force needs an ability to gather and process social and cultural information and to interpret this information accurately. Much of this information will be resident within other government departments and signals a requirement for an intergovernmental capability and approach, especially during deployments on OOTW – “future urban warfare must be waged not by military tactics alone, but by a closely coordinated interagency strategy.”¹⁵⁵

To attain information dominance, soldiers will be required who can make an impact in this environment. As identified for peace support operations: “ Training on intelligence

¹⁵⁴DLSC, *Future Force*, 61-78, 91-98.

¹⁵⁵Colonel Steven Jones, “Re-Examining Tomorrow's Battlefield: Taking The Fight Into The Street” (Carlisle: US Army War College, 2003), 2.

gathering is one of the categories soldiers must develop.”¹⁵⁶ To achieve this capability our soldiers need an ability to interact with local populations. To accomplish this, the Canadian Army must make better use of the language abilities of its soldiers. Language ability beyond French and English capabilities should be tracked and incentives should be given to maintain other languages. As an alternative to hiring local in theatre language assistants with the associate in theatre biases, alternate service delivery (ASD) mechanisms could also be adopted similar to current civilian contracts to provide logistics support in overseas camps. An ASD approach would hire civilian Canadians with language capabilities compatible with proposed operational environments to act as language assistants or interpreters with a far greater assurance of accuracy, non-bias or negative influences on the interpreters.

In addition to intelligence gathering through interacting with the local inhabitants on an operation, sensors and UAVs are one of the key technologies that should be pursued to help achieve information dominance on the urban battlefield. As an example, during OIF the United States employed over 12 different types of UAVs to ensure that battlefield situational awareness was achieved.¹⁵⁷ “Improvements in situational awareness therefore rest on developing more accurate, portable sensors, and the means with which to project them deeper into the battlespace”¹⁵⁸ Coupled with better sensors is better analysis and sharing of information. Technologies towards better data fusion and associated better situational awareness are also required: “Intelligence in MOUT is dominated by situational

¹⁵⁶Captain Kent Strader, “Counter Insurgency In An Urban Environment,” *Infantry*, (January-February 1997): 8.

¹⁵⁷Cordesman, *The Lessons Of The Iraqi War: Main Report...*, 231.

¹⁵⁸Harris, “Improving The Infantry’s Inventory...,” 20.

awareness”¹⁵⁹ Improvements in radio size and bandwidth, aerial relays from UAVs, and networked or linked soldier systems should also be considered.¹⁶⁰

The Canadian Army also needs improved soldier systems, as there are many urban specific requirements that need more focus. During OIF numerous deficiencies were identified that necessitate greater availability or improvements in capability of military non-lethal weapons, body armour and personal protection equipment (kneepads etc.), enhanced communications, and stand-off breaching capabilities.¹⁶¹ Similar equipment deficiencies and capability requirements have also been identified during Marine Corps experimentation as key areas to improve.¹⁶² Also, practical non-lethal weapons should be examined as one mechanism to give military forces the ability to achieve mission objectives and reduce non-combatant casualties and infrastructure damage.¹⁶³ Night vision capabilities must also be enhanced. This Marines reaffirmed this requirement during OIF and emphasized that a key deficiency in urban operations was the availability of good night vision and thermal sights.¹⁶⁴

The Canadian soldier requires these same capabilities. These enhancements coupled with good training will see immediate dividends. Tied to improved soldier systems must be a precision attack capability: “In the final determination, precision munitions will be an

¹⁵⁹*Ibid*, 20.

¹⁶⁰*Ibid*, 17-18.

¹⁶¹Department of Defence, *Emerald Express (EE 03) Joint Urban Operations...*, 2.

¹⁶²USMC, *Military Operations on Urbanized Terrain (MOUT)...*, 58-69

¹⁶³Harris, “Improving The Infantry’s Inventory...,” 26.

¹⁶⁴Cordesman, *The Lessons Of The Iraqi War: Main Report...*, 277.

important piece of the urban fight, but will always remain mere enablers of successful urban operations.”¹⁶⁵ This will also necessitate special equipment and a joint training requirement.

Finally the Canadian Army needs robust and protected logistics. Lines of communications are vulnerable and force protection becomes paramount – specifically for logistics elements that must effect resupply to deployed forces. Combat service support convoys must be able to defend and fight in the urban environment.¹⁶⁶ This requires service support soldiers who are fit and capable of fighting in the urban environment and service support units equipped with the necessary weapon systems to mount an effective defence.

To meet all of the capabilities described, including the equipment and the future technological needs of the Canadian Army in the urban environment, a strategic level procurement plan must be achieved. Just as it was identified by the United States military as a shortcoming in 1983, the equipment needs of the individual soldier conducting urban operations must be evaluated and addressed.¹⁶⁷ According to an independent analysis: “Given the economic realities of today, there has to be a conscious and well thought-out plan for determining the technological requirements of future urban operations and for getting the military-unique research off the ground.”¹⁶⁸ Furthermore, “... all critical capabilities now under development need to have complicated urban terrain employment and support

¹⁶⁵Hahn and Jezior, “Urban Warfare and the Urban Warfighter of 2025,” 76.

¹⁶⁶Department of Defence, *MOUT Experiences During Operation Iraqi Freedom*, n.p.

¹⁶⁷David Reiss, *et al*, “Survey Of Current Doctrine, Training, And Special Considerations For Military Operations On Urbanized Terrain (MOUT),” (Fort Benning: U.S. Army Research Institute For The Behavioral and Social Sciences, 1983), 45.

¹⁶⁸Hahn and Jezior, “Urban Warfare and the Urban Warfighter of 2025,” 79.

outcomes as a principle measure of effectiveness.”¹⁶⁹ To meet the needs of the urban battlefield, procurement plans should be directed at well defined priorities: “...new technology acquisitions are required to accommodate certain aspects of urban operations, especially the battlespace awareness aspects at both the operational and tactical levels.”¹⁷⁰

Beyond a focus towards skills, abilities, and a coherent procurement plan, the Canadian Army needs a change in mindset if true advancement is going to be made towards having a force capable of operating effectively in the urban environment. A change, away from the existing Canadian Army mindset that the urban battlespace can and should be avoided, to one that recognizes the urban battlespace as unavoidable and an area that must be conquered, is the most important change necessary to achieve a coherent way ahead. It will also be the hardest to achieve with a senior leadership whose experiential framework is rooted in a Cold War view towards training requirements.

In order to achieve a transformation it will be first necessary to create an overarching, stand alone, urban operations concept. An articulated urban operations concept will help compel focus towards urban operations and the special requirements of this battlespace. It should act to focus attention towards key doctrine development, equipment procurement, and research requirements. As a possible “strawman” or model, an outline of key considerations to be included in the concept have already been addressed as part of the call for a Joint United States Doctrine for urban operations.¹⁷¹ This could become the framework for the Canadian Army as well, as a possible land contribution to a Canadian joint vision of urban

¹⁶⁹Lieutenant-General Edwin Smith, “Challenges in Urban Warfare As We Transform” *Army Magazine* (September 2002): n.p.

¹⁷⁰Department of Defence, *Joint Urban Operations Enabling Concept...*, 18.

¹⁷¹Glen, *We Band Of Brothers: The Call For Joint Urban Operations Doctrine*, 56.

operations. As a possible alternative template, the British Army sub-concept paper on urban operations could be used.¹⁷² A key consideration in the development of any model is that it should be a joint concept, as this is what other armed forces are trying to achieve, especially the United States. The urban operations concept must also promote the initiative that future urban combat will require an interagency, interdepartmental approach within Canada. “Urban warfighting strategy,” insists Colonel Steven Jones “must integrate the uniquely relevant capabilities of each of the instruments of national power.”¹⁷³

Second, urban operations must become a true training priority for the entire Army, not just for a select few. To that end it must be included and taught at all levels of instruction within the Army. It must have a pre-eminent place during all leadership and advanced training courses. It must also be included in all Canadian Forces College courses to ensure a joint appreciation of this environment exists within the Canadian Forces. The Army should revamp existing training manuals to ensure that the most recent lessons learned are incorporated into a coherent doctrine for the Canadian Army. Course training should be developed to ensure individual and low-level basic skills and leader tactical capabilities are developed across the army. Ultimately, urban training facilities must be addressed to provide the opportunity for continuous training across the Army.

Third, the army must identify through a re-prioritization of staff effort, that urban operations are a primary focus for the army. A dedicated urban operations cell is required within the Army Training and Army Development Directorates to focus energy and effort

¹⁷²United Kingdom, British Army, *Draft Development of the Urban Operations Capability of the Land Component – A Future Land Operational Concept (FLOC) Sub-component*, (London: ACGS, 22 September 2003).

¹⁷³Jones, “Re-Examining Tomorrow’s Battlefield: Taking The Fight Into The Street,” 4.

towards achieving a holistic approach to this battlespace. Urban operations must change from a secondary or tertiary responsibility within staff to an independent staff cell with a focused agenda and timeline. This will not be achievable through a simple reorganization of an already overburdened staff but will necessitate the creation of new staff positions. In this manner, actions will meet words.

Finally, Canada should increase participation in ongoing coalition efforts, especially with the United States and Britain, with a view to leveraging their expertise. The creation of a dedicated urban operations cell is one method that would naturally achieve this. Expanding existing liaison staff or offering staff to ongoing United States Army, Marine Corps, or British Army projects is another method that could easily accomplish this. Expanded liaison staff with technical qualified officers, directed to focus on Urban Operations would produce amazing results with limited investment. Increased coordinated research and development is another potential manpower and cost sharing mechanism.

In summary, to correct the existing shortcomings, the Canadian Army needs to achieve the appropriate skill capabilities across the entire army, a procurement plan directed at meeting the urban operations capability shortfalls, and a change in the mindset that exists within the army. These shortfalls and associated requirements are plainly evident when considered against the previously discussed complexities of the urban battlefield and the current status of Canadian Army capabilities for the urban environment. Increased army staff emphasis and an active approach with Canadian allies would go a long way to rectify the shortfalls that currently exist with respect to urban operations capability within the Canadian Army.

Part VII – Conclusion

This paper has demonstrated that despite an apparent realization that urban operations will be the most prevalent battle space of the future, the Canadian Army is no further advanced today, than it was at the end of the Cold War era, indicating a real lack of understanding of the future prevalence of this type of operation and the unique difficulties encountered when conducting operations within this environment. The current development of an all arms urban operations course, and the publication of tactical level manuals will not be sufficient to propel the Canadian Army forward in preparedness for the urban battlefield. The Canadian Army and its Allies (ABCA and NATO) will need to invigorate efforts in urban operations to be truly prepared for conflict in the future.

In the analysis of this problem, this essay has reviewed the historical background and how previous Second World War military operations and the Cold War threat have shaped our thoughts on urban operations. It has been demonstrated that despite all previous experiences related to dealing with urban operations in a conventional threat environment and in an operation other than war environment, the doctrine and overall focus and emphasis towards this battlespace has failed to change from the paradigms of from Cold War thinking. This perception is supported by the relative lack of effort and resources that have been dedicated to urban operations by our ABCA and NATO allies. Historically, Canada has not emphasized urban operations within our doctrine, our training, and our equipment procurement policies. Additionally, Canada lags behind ABCA and NATO counterparts in all these areas.

The very real and growing complexity of the world urban environment was also considered as the major defining characteristic that would cause increased Canadian military

participation in operations around the world. The rapid world population growth rate and coinciding increase in urbanization has changed the face of the planet that we live in, with the most rapid changes in this area occurring in the underdeveloped nations located in the Middle East, Asia, and Africa. Increased globalization has tied the Canadian national economy to international trading partners and has made world stability an issue for Canadian economic security and growth. Our government remains committed to world peace and involvement with the United Nations and our allies, in order to maintain international stability. This will result in an increased tempo and increased military involvement in urban areas around the world. This fact will hold true for Canada as well as our ABCA, and NATO allies.

Within this context, the Canadian military will see increased deployments into urban areas predominately on OOTW missions. Despite this, the potential for conventional urban combat within the framework of the “three-block war” will always be a reality. Although the Canadian military possesses considerable expertise on these types of missions, training practices have not kept pace with the necessity to have soldiers proficient in urban operations across the various spectrums of conflict.

The unique characteristics of urban environments impose special requirements and force capabilities necessary to achieve success within the urban environment. The physical characteristics include a three-dimensional threat environment with limited lines of visibility, very short engagement ranges, and rapid decision times. The urban environment creates a milieu with poor communications, poor inter-visibility and degraded situational awareness, and generally limits western technological advantages. The political characteristics include an ethnically, culturally, and linguistically diverse setting with considerable numbers of non-

combatants and politically sensitive targets. The urban environment also provides the enemy the potential to mask movement and the potential to achieve political cover and support bases amongst the populace. The impact of the media is also a key characteristic that adds to the complexity of the urban battlefield.

Overall these characteristics have a significant impact on the conduct of urban operations and necessitate greater emphasis and priority. Urban operations are inherently fluid and the potential of rapid transition between various forms of OOTW and warfighting is considered likely. This fact necessitates a highly skilled, highly trained, and well-supported military force. It is an environment that places a great deal of stress on soldiers and leaders. Soldiers must be able to deal with the impact of the media and must be able to interact with the personnel within the urban environment. The urban area also creates significant problems for command and control, necessitating decentralized decision-making. The uniqueness of urban operations also requires forces that are task tailored to the mission and nationally supported through a coordinated interagency or inter-departmental approach.

In comparison to our ABCA and NATO counterparts, the Canadian Army has lagged well behind in preparedness for urban operations. Canada remains with no real updated doctrine, training philosophy, training facilities, or established equipment program to meet the needs of the urban environment. Although an UOWG was formed to study the issue, it has since ceased to function following the tabling of its final report. Currently no specific urban operations cell exists within the Army and it is generally addressed as a secondary duty amongst Army staff.

Although some initiatives are about to be instituted, such as the development of new training manuals and an all arms urban operations course, these initiatives will fall short of

making the Canadian military ready for urban operations. Besides, urban operations training is not mandatory for all trades within the Army and is currently only included within basic infantry officer, basic infantry soldier, and infantry leadership training. The training time allocated to this is also minimal, considering the complexity of this battlefield. The planned approach to meeting the training requirements for urban operations will result in a varied and incomplete capability across the Army and reinforces the fact that this is truly not an Army priority.

Nowhere is the lack of an Army commitment to urban operations more evident than in the efforts made to obtain adequate facilities and equipment for our soldiers to train. No comprehensive and overarching building plan exists to achieve sufficient sites to meet the training need. The creation of only one site at the CMTC facility will result in limited and infrequent participation in training across the army, rapid degradation of skills once acquired, and an inconsistent training standard. There is also no comprehensive equipment procurement plan for the Army. Although some analysis has been completed into future army requirements for the urban battlespace, we remain no more advanced today than we were at the end of the Cold War.

The complexities of the urban environment and the noted deficiencies of current Canadian policies necessitate a different approach. This essay has provided some suggestions to improve Canadian Army capabilities within the urban environment. Key amongst these suggestions is the development of appropriate skill capabilities across the entire army, not just the infantry. This will require the development of adequate training facilities and the development of formalized training either as part of common basic training

or as a stand-alone course. An Army level procurement plan is also recommended to meet the specific equipment needs for forces operating in the urban environment.

Finally, before urban operations can be truly considered a priority within the Canadian Army, a different approach or mindset must be adopted within the Army. It is recommended that an overall urban operation concept be developed to guide development within the Canadian Army and potentially act as the Army contribution to an overall joint concept for urban operations. It is further recommended that a separate urban operations cell be formed within the Army staff to reinforce the importance of this area of operations to the Army as a whole. Urban operations must be included in all training and specifically all staff training, to include joint consideration at the Canadian Forces College. It is only through these efforts that the Canadian Army will truly be able to turn the corner and be ready for the inevitable operations to be conducted in the urban environment. Apathy or a lack of vision at this juncture will surely result in a less prepared and effective Canadian soldier, thrust into operations where the likelihood of success and the soldiers well being will be placed in jeopardy.

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