

Canadian
Forces
College

Collège
des
Forces
Canadiennes



THREAT-BASED ANALYSIS: CANADA'S SOLUTION TO ARCTIC DEFENCE PROCUREMENT

Major Joseph Franklin

JCSP 46

Solo Flight

Disclaimer

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

© Her Majesty the Queen in Right of Canada, as represented by the Minister of National Defence, 2020.

PCEMI 46

Solo Flight

Avertissement

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

© Sa Majesté la Reine du Chef du Canada, représentée par le ministre de la Défense nationale, 2020.

CANADIAN FORCES COLLEGE – COLLÈGE DES FORCES CANADIENNES

JCSP 46 – PCEMI 46

2019 – 2020

SOLO FLIGHT

**THE CAF REQUIRES A FORCE-WIDE
UNARMED DEFENSIVE PROTECTION TRAINING PROGRAMME**

By Lieutenant-Colonel Paul King

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

Word Count: 5,290

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

Nombre de mots : 5.290

THE CAF REQUIRES A FORCE-WIDE UNARMED DEFENSIVE PROTECTION TRAINING PROGRAMME

Canada's involvement in Afghanistan between 2005 and 2011 saw its military gain a vast amount of experience in war fighting and counter insurgency operations.¹ However, that period of Canadian military history is over, and the Government of Canada now appears to be steering clear of long drawn-out international operations. Instead, its international focus appears to be moving towards humanitarian² and peace support operations like Operation Presence - Mali, where Canada deployed over 1250 personnel to conduct medical evacuations and logistical support to the United Nations (U.N.) in the Mali region.³ These types of operations are often about protecting people,⁴ and training military members to conduct these types of activities means soldiers need to be able to communicate, de-escalate volatile situations, understand how to use force in self-defense and how to utilize non-lethal capabilities.⁵

Modern peace support operations are complex⁶ and can appear to be more like policing activities where the goals are about establishing the rule of law and ensuring the protection and safety of all people. The problem is that although Canada has a very good training system, it has not adjusted training to provide all of its military members with the necessary skills to operate in these different operating environments. Skills such as knowing how to apply different levels of force to control volatile situations, or being able to apply defensive empty hand techniques in the

¹ A. Walter Dorn and Joshua Libben, "Preparing for Peace: Myths and Realities of Canadian Peacekeeping Training," *International Journal* 73, no. 2 (2018), 259.

² Bernd Horn, "No, but Yes. Military Intervention in the New Era: Implications for the Canadian Armed Forces," *Canadian Defence and Foreign Affairs Institute*, 2015).

³ Brian Cox, "Was Canada's Mali Mission Worth It? Absolutely.," Accessed Apr 26, 2020.

⁴ Dorn, "Preparing for Peace: Myths and Realities of Canadian Peacekeeping Training," 257-258.

⁵ *Ibid.*, 275-278.

⁶ *Ibid.*, 257-258.

protection of themselves or others are critical in any security operation, especially those where lethal response options may be limited.

The question is do all Canadian Armed Forces (CAF) members require these types of skills? Empty handed combative skills, or unarmed defensive protection skills, are skills that all members of the CAF should possess when being deployed on future operations in order to be able to protect themselves and others regardless of the situation. These skills not only improve the members effectiveness on operations, but also provides them with additional “Use of Force” options when faced with a potentially violent situation. By training its members on how to protect themselves and control volatile situations, Canada ensures its military members are capable of functioning in a wide spectrum of operations including war fighting, stability, peace support, humanitarian and domestic security operations.

Different organizations have different names for their particular system of techniques taught to an unarmed individual who is required to protect themselves or use force to control someone else. An unarmed individual is defined here as someone who is unable to deploy a weapon system like a firearm, impact weapon, edged weapon, conductive energy weapon or chemical agent. The US Army has named their program "Combatives",⁷ police services like the Royal Canadian Mounted Police (RCMP) refer to their program as "Defensive Tactics",⁸ and the Canadian Army Infantry Corp calls their program "Unarmed Combat".⁹ This paper uses the term Unarmed Defensive Protection Skills (UDPS) to refer to such skill sets.

⁷ James F. Blanton, "Hand to Hand Combatives in the US Army " U.S. Army Command and General Staff College, 2008), 1.

⁸ Ian McPhail, Chairperson-Initiated Complaint and Public Interest Investigation regarding Policing in Northern British Columbia - Interim Report. Commission for Public Complaints Against the RCMP, 2015. 89.

⁹ Alexander Sung (Unarmed Combat Instructor, CSOR), discussion with Paul King (Author), April 5, 2020.

The primary purpose of UDPS training is to enable a CAF member to de-escalate a violent situation, protect themselves, disrupt a physical attack, or to physically control a subject. When referring to any system of UDPS the term “Use of Force” often gets intermixed in the discussion. The word “force” can be defined as “strength or energy exerted or brought to bear”¹⁰ and in a legal context when force is used it is usually done to compel someone to do something or have them comply with direction.

In Canadian law, the Criminal Code uses the phrase “Use of Force” when discussing if an act which involved force was legal or not. Section 34 (Defense of Person) of the Criminal Code highlights that a person can use force to protect themselves. Section 34 then goes on to discuss the factors assessed in determining if the force used was reasonable.¹¹ Any UDPS program will have the concept of “Use of Force” integrated into its training since each technique which applies force, has various consequences of physical damage which could be inflicted on a subject.

The aim of this paper is to develop an understanding of what UDPS is, and why it is important and relevant to the CAF. The paper will begin by giving some scope of the topic to be discussed, and provide a short history of the subject. It will review how other nations address the topic and discuss the state of the topic currently in the CAF. The paper will then review what the CAF is expected to do and discuss how changing operational demands could affect it. It will consider how future operations will affect how the CAF trains its members for these different situations. The paper will discuss how the CAF currently derives its legal authority to use force and how that compares with other government agencies who also have legal authority to use

¹⁰ Webster’s Third New International Dictionary of the English Language, Unabridged, Springfield, MA: Merriam-Webster, 1993.

¹¹ Criminal Code of Canada, RSC 1985, C-46. S 34.

force in the execution of their tasks. This discussion will demonstrate how future operations could be legally substantiated to change how the CAF could be employed. Finally, this paper will present and discuss other benefits and concerns of this type of training, and it will suggest what a possible training program could look like.

The CAF has often stated that its members are its most important resource;¹² ultimately the CAF achieves its tasks and missions because of the individuals in uniform who conduct their day to day activities. These people are the core of the organization and they are why the military can achieve success.¹³ Since its members are such a key asset, the CAF needs to ensure it has trained and properly prepared them for any type of operation. This training should include UDPS as it will help them be more effective on operations and provide them with additional non-lethal “Use of Force” options when dealing with both combatants and non-combatants. There are many types of non-lethal equipment options which could be made available to CAF members. However, since the human operator is the basic building block of the military, the goal should always be to ensure they are as best prepared as possible. Once each individual is ready for operations, the next order of preparation should be to equip them with the right tools to achieve success.

It was stated earlier that all members of the CAF should receive UDPS training and this should include all members of the Canadian Armed forces Reserve. All members of the CAF are trained to one standard but members of the Reserve Force are only required to serve in a limited capacity, usually six days a month.¹⁴ However, members of the Reserve Force who volunteer

¹² Sajjan, Harjit S. Minister of National Defence., Department of National Defence and the Canadian Armed Force 2019-20 Departmental Plan. Government of Canada, 2019. 5.

¹³ S. M. Nash, "On Guard: Close Quarters Operations Training for the Canadian Forces" Canadian Forces College, 2003. 6.

¹⁴ "Canadian Army Reserve," accessed Apr 01, 2020.

can be employed in a full-time capacity and serve alongside members of the Regular Force. During these times they will deploy on the same missions, enduring the same hardships and accepting the same risks.¹⁵ As such, they require the same training and preparation.

This type of training is not a new idea for the CAF. In the First World War due to the development of trench warfare, soldiers on both sides were forced to fight in confined spaces where it was difficult to bring their rifles to bear on the enemy. At such times striking and grappling were used to survive the encounter.¹⁶ In these situations, soldiers who were not accustomed to fist fighting were unsure of what to do.¹⁷ To help their troops have an edge when fighting in these conditions, Canadian Army Captain, William J. Jacomb created a program which integrated bayonet fighting with boxing.¹⁸ A quote from Jacomb highlights his belief that hand to hand fight training gave his troops the courage to go into battle:

“Physical courage is perhaps the most common of virtues, but the courage of a soldier, and especially in the bayonet fighter, is a courage borne of confidence and ability to fight and to defend himself. I do not believe there is any other form of exercise which develops this as quickly as the practice of boxing. Secondly, and fortunately, bayonet fighting is so near akin to boxing that the practice of boxing develops skill in bayonet in less time, with less expense, and with fewer casualties.”¹⁹

During this time not everyone saw the value of such training and many believed that as technology developed, battles would ultimately be determined at a distance.²⁰ However, it was

¹⁵ *Ibid.*

¹⁶ James Lee-Barron, *Unarmed Combat Training in the First World War*, 2015. 6.

¹⁷ *Ibid.*, 7.

¹⁸ *Ibid.*, 8.

¹⁹ *Ibid.*, 9.

²⁰ Peter Jensen, *Hand-to-Hand Combat and the use of Combatives Skills: An Analysis of United States Army Post-Combat Surveys from 2004-2008*. West Point, NY 10996: Center for Enhanced Performance, 2014. 1.

not long into the start of the Second World War that militaries felt the need to once again develop systems of unarmed combat²¹ and Canada was no exception as its soldiers also participated in such training.²²

The development of unarmed combat at this time was heavily influenced by Rex Applegate and William Fairbairn.²³ Applegate was American and the son of a police officer.²⁴ In 1940 he was a member of the 209TH Military Police Company and was responsible for establishing a school for close combat.²⁵ During this time, he wrote a book about striking and grappling²⁶ and his methods were also used to train covert agents of the Office of Strategic Service.²⁷ Fairbairn was British and spent 20 years as a Shanghai police officer but in 1940 he was recalled back to Britain and enrolled back into the military at the rank of Captain.²⁸ Fairbairn was very skilled at knife fighting and was a recognized practitioner of Japanese Ju Jitsu.²⁹ In 1942 he published his book “Get Tough” which focused mainly on disarming, throws and falls.³⁰ His methods were also used to train specialized military units in unarmed combat.³¹ It is interesting to note that both of these men had experience with policing, and perhaps daily exposure to using force and seeing what was effective gave them a unique understanding of self-defense.

²¹ Nash, "On Guard: Close Quarters Operations Training for the Canadian Forces". 21.

²² Daniel R. Pellerin, "Sharpening the Sabre: Canadian Infantry Combat Training during the Second World War." University of Ottawa, 2016. 214.

²³ Blanton, "Hand to Hand Combatives in the US Army". 5.

²⁴ Nash, "On Guard: Close Quarters Operations Training for the Canadian Forces". 21.

²⁵ *Ibid.*, 22.

²⁶ Blanton, "Hand to Hand Combatives in the US Army". 26.

²⁷ Nash, "On Guard: Close Quarters Operations Training for the Canadian Forces". 22.

²⁸ *Ibid.*

²⁹ *Ibid.*

³⁰ Blanton, "Hand to Hand Combatives in the US Army". 16-17.

³¹ Nash, "On Guard: Close Quarters Operations Training for the Canadian Forces". 22.

Several nations have spent a great deal of time developing UDPS programs and implementing them into mandatory training for all members of their organizations. In the 1920's a Russian named Oshchepkov Spiridonov developed a system of grappling and strikes³² which eventually became Russian Sambo, a hybrid sport of wrestling and Japanese judo.³³ Russian Sambo is still taught in the Russian military today and it consists of three types; basic combat sambo, sport sambo, and Spetznaz (special forces) sambo.³⁴ After the Second World War Israel created its own program, Krav Maga, that is still used today by its military. Krav Maga was developed by Emenich Lichtenfled and it is a self-defense system based on natural reactions utilizing simple techniques.³⁵

The United States (U.S.) military has also gone through several iterations of developing its own specialized UDPS programs and both the U.S. Army and the U.S. Marine Corp have created unique UDPS systems. Before the Second World War the U.S. was heavily influenced by both boxing and wrestling³⁶ and during the war they developed specific unarmed combat training. However, after the Korean War they shifted away from unarmed combat because of the old mindset that technology would dominate battle.³⁷ This mindset continued through the Vietnam War but in the 1990's after the U.S. involvement in Somalia,³⁸ a need for close combat skills was again recognized.³⁹ In the 1990's the martial art known as Brazilian Jiu-Jitsu (BJJ) was starting to have influence in the U.S. Army⁴⁰ and by 1995 they launched their modern combatives

³² Blanton, "Hand to Hand Combatives in the US Army". 48.

³³ *Ibid.*

³⁴ Nash, "On Guard: Close Quarters Operations Training for the Canadian Forces". 53.

³⁵ Blanton, "Hand to Hand Combatives in the US Army". 56-57.

³⁶ *Ibid.*, 22.

³⁷ *Ibid.*, 19.

³⁸ Nash, "On Guard: Close Quarters Operations Training for the Canadian Forces". 59.

³⁹ *Ibid.*, 60.

⁴⁰ *Ibid.*, 62.

program⁴¹ consisting of strikes, take downs, throws and ground fighting.⁴² By 2000 the U.S. Marine Corp also felt that combat had changed and they created the Marine Corp Martial Arts Program (MCMAP).⁴³ Both the U.S. Army and the U.S. Marine Corp have made their systems of UDPS training mandatory for all members, regardless of military occupation.

Since 1983 some form of UDPS has existed in the CAF⁴⁴ and in 2001 the Directorate of Army Training looked to modernize it.⁴⁵ Although there is currently no unified UDPS system of training in the CAF, there are several military occupations and specialized units that do have UDPS requirements programmed into their respective training. The CAF Military Police are very similar to civilian police agencies and they have an extensive defensive tactics training program which is required as part of their training.⁴⁶ The Royal Canadian Navy conducts two specialized training courses (Naval Boarding Party Basic Course and Maritime Tactical Operators Course) that both have UDPS training programmed into them,⁴⁷ and the Canadian Infantry Corp has a specific unarmed combat course which is mandatory for all infantry soldiers.⁴⁸ Perhaps one of the more interesting recent developments for the CAF has been the creation of a competitive grappling program run through the Personal Support Programs (PSP), which oversees morale and welfare programs on behalf of the CAF.⁴⁹ The program was developed by LCol Steve Burgees in 2013 and training is conducted like a sports program. Interested members join at their local base fitness facility and grappling style competitions are run across the country. LCol

⁴¹ Blanton, "Hand to Hand Combatives in the US Army". 1.

⁴² *Ibid.*, 18.

⁴³ *Ibid.*, 40.

⁴⁴ Nash, "On Guard: Close Quarters Operations Training for the Canadian Forces". 6.

⁴⁵ *Ibid.*, 7.

⁴⁶ Darren Lemire (DCO MP Academy), email to Paul King (author), February 18, 2020.

⁴⁷ Wilfred Lund (Commanding Officer of the Naval Tactical Operations Group), email to Paul King (author), March 21, 2020.

⁴⁸ Alexander Sung (Unarmed Combat Instructor, CSOR), email with Paul King (author), April 5, 2020.

⁴⁹ Ryan Melanson, "Military Combatives and Grappling," Trident Newspaper. Mar 9, 2018.

Burgees recognizes these types of skills as essential for all military members and believes they are critical for developing a fighting mindset.⁵⁰

In 2017 the Canadian government released the document “Strong, Secure, Engaged: Canada’s Defense Policy” which outlined the CAF’s operating plan for the next 20 years. This document outlined what the CAF will be expected to achieve over that time frame. It also stated that CAF members would be trained and equipped to succeed on operations across the full spectrum of military missions, including humanitarian assistance, disaster relief, peace keeping and combat.⁵¹ The document also recognized that the CAF has to be able to achieve some specific missions. It has to defend Canada from attack, it has to defend North America in partnership with the U.S., it has to contribute to the North Atlantic Treaty Organization (NATO) and also to the U.N. to protect global security. The CAF has to be able to work with other government agencies and, when required, provide specific assistance to law enforcement agencies in the protection of Canada.⁵² From this document we can conclude that the CAF must be trained and ready to conduct multiple operations at the same time across a wide spectrum⁵³ where the risk of violence and harm will be always present. This means the members of the CAF must have the skills to be able to do a range of activities at any given time with potentially little time to prepare.

In the last three decades Canada has been deploying troops to a variety of operations around the world. During the 1990’s these were mainly based around stability, peace support, or peace keeping. It conducted peace keeping operations in the Balkans from 1991 to 2004, it was involved in restoring order in Rwanda from 1993 to 1996, and it conducted stability and relief

⁵⁰ *Ibid.*

⁵¹ Strong Secure Engaged. National Defence. 2017. 11.

⁵² *Ibid.*, 82-87.

⁵³ *Ibid.*, 81.

operations in Haiti from 1995 to 2004.⁵⁴ In 2001 that changed as Canada became involved in combat operations when it contributed troops to the Afghanistan mission.⁵⁵ This was a combat mission and Canada gained valuable war fighting experience. However, as Canada withdrew from Afghanistan in 2014, it started to move into peace operations once again, but now these peace operations had changed and international expectations were different. Troops would need to be able to deal with people who could be cooperative at one minute but turn violent the next. They would also have to understand that separation and security from the local populations would not be as robust as experienced in combat regions.

When most Canadians think about CAF domestic operations they typically think about floods and forest fires. In these types of deployments, the CAF is not really there to conduct security activities. However, there have been many domestic deployments where the CAF has been deployed to conduct or assist in security operations. In 1970 the CAF deployed troops to the FLQ crisis in Quebec,⁵⁶ it supported the Olympic games in Montreal in 1976,⁵⁷ and it deployed to help with a prison riot in Montreal in 1977.⁵⁸ In 1989 the CAF deployed troops to secure an airfield in Labrador from protestors,⁵⁹ and in 1990 it deployed troops to the Oka crisis in Quebec.⁶⁰ After 9-11, with the increased threat of terrorist attacks, most large scale public events required additional security. This was also true for the 2010 Olympics in Vancouver

⁵⁴ "Peace Support Operations (1954-Present). Canadian Armed Forces. Military History. War and Operations," accessed Apr 2, 2020,

⁵⁵ *Ibid.*

⁵⁶ Michael A. Stevens. Canadian Armed Forces Operations from 1990-2015. Valcom Consulting Group Inc., 2015. 28.

⁵⁷ *Ibid.*, 29.

⁵⁸ *Ibid.*

⁵⁹ *Ibid.*, 25.

⁶⁰ *Ibid.*, 22.

which required a large military presence to conduct security operations such as securing back country access to Olympic venues.⁶¹

In the future there will be a continued need for the CAF to be involved in operations that support Canadian interests and support Canadians.⁶² That will likely mean more peace support or stability type operations internationally, with the possibility of being involved in multiple operations at the same time. It could also be required to conduct kinetic and non-kinetic activities during the same operation.⁶³ It is impossible to predict the future but the CAF must maintain its capabilities to provide support for domestic operations including possible domestic security operations. As the current COVID 19 situation continues to change, the CAF could be called upon to provide support to fight the spread of the virus. The CAF may be asked to provide medical or construction support,⁶⁴ but depending on the speed of the spread of the virus the CAF could be called upon to enforce lockdown regulations just as the Italian military has been tasked to do.⁶⁵

The CAF can be authorized to conduct domestic operations in order to assist law enforcement agencies by way of three categories. The first is by the Crown Prerogative whereby the executive branch of government can do anything not already assigned to Parliament. The second is by way of Section 273.6 of the National Defense Act (NDA) which gives the executive branch of government the ability to authorize the CAF to assist domestic law enforcement if it is of national interest and if it cannot be dealt with without the CAF's assistance. The third

⁶¹ Kim Murphy, "Providing Security at Vancouver Olympics is a Daunting Task," Los Angeles Times. 11 Feb, 2010.

⁶² ADM(RS), Evaluation of Canadian Armed Forces Operations. Government of Canada. 2017. 7.

⁶³ David Hill, "Finding the Right Balance of Stability to Combat Capability in the Canadian Army's Training System " Canadian Forces College, 2014. 35-36.

⁶⁴ Bruce Donaldson, (What support to the COVID-19 response could the CAF & DND provide if asked.) interview with Dave Perry, *Canadian Defence and Foreign Affairs Institute*, podcast audio, March 19, 2020.

⁶⁵ Valentina Di Donato, Nicola Ruotolo and Laura Smith-Spark, "Italy Calls in Military to Enforce Coronavirus Lockdown as 627 People Die in 24 Hours," CNN. 20 Mar, 2020.

category where the CAF can be authorized to assist domestic law enforcement is by way of three Orders in Council: the Canadian Forces Assistance to Provincial Police Forces Directions (operational support to police), the Canadian Forces Armed Assistance Directive (major threat operations), and the Assistance to Federal Penitentiaries Order (prison security).⁶⁶

So, what is the relevance of operational changes to the need for all CAF members to receive UDPS training? With international operations moving to complicated peace support activities and a possible increase in domestic security operations, CAF members will be interacting with non-combatants and civilians more often. It is likely that these interactions will require CAF members to enforce regulations on non-cooperative groups. This means they will need to be trained in UDPS techniques and trained to understand how to use force appropriately. These operational shifts are moving CAF involvement more in line with what is expected of police organizations. In addition, there will be a greater expectation for professional conduct and accountability to the law. In the 1990's when CAF troops were deployed to Labrador and Oka, they had very little training in UDPS techniques or "Use of Force", and instead they conducted live fire training in order to prepare for domestic operations.⁶⁷ Deploying troops in this manner to interact with Canadians could have ended drastically.

Even if conventional combat operations are conducted in the future it is still critical that all deploying CAF members have UDPS training. Modern combat recognizes that both combat and non-combat soldiers will be in the proximity of the enemy and all will need to know how to survive.⁶⁸ When asymmetric threats exist, all deployed members need to know how to fight and

⁶⁶ Thomas Flavin (Western Area AJAG), email to Paul King (author), March 27, 2020.

⁶⁷ Nash, "On Guard: Close Quarters Operations Training for the Canadian Forces". 10.

⁶⁸ David Scott Mann, "Every Soldier a Rifleman: Army Logistician," *Army Logistician* 36, no. 1. 2004. 45.

survive.⁶⁹ In a nonlinear battlespace everyone is at risk⁷⁰ and everyone needs to know how to fight and win.⁷¹ In these complex environments there are no “combat” or “non-combat” roles, everyone must be a soldier first⁷² and be able to fight for themselves.⁷³ Recent research on 1,226 returning U.S. combat soldiers who had been in Iraq and Afghanistan between 2004 and 2008, suggested that approximately 19% of them used hand to hand skills at least once showing that these skills are still relevant.⁷⁴

Regardless of how CAF operations change it can only act based on the legal authority it has been granted. The authority to use force is based on international and domestic law as well as some general guiding principles. Fundamental to the CAF and how it uses force is that all members of the CAF must adhere to Laws of Armed Conflict (LOAC).⁷⁵ The LOAC are a body of international law that sets out the rules for behavior in armed conflict. It is designed to limit unnecessary suffering.⁷⁶ Some of its guiding principles state that force must be controlled, it must be limited to what is required to achieve submission and it cannot be used to inflict unnecessary suffering or destruction.⁷⁷ The “Use of Force” is also regulated by Rules of Engagement (ROE). ROE are developed through consideration of LOAC and other political, diplomatic and legal considerations and they are used by commanders to control the actions of

⁶⁹ A.M. McCabe, "CAF Logistics Force Protection" Canadian Forces College, 2014. 7-8.

⁷⁰ Clark C. Barrett, "Unarmed and Dangerous: The Holistic Preparation of Soldiers for Combat," *Ethical Human Psychology and Psychiatry* 13, no. 3 (2011), 101.

⁷¹ Mann, "Every Soldier a Rifleman: Army Logistician,". 48.

⁷² McCabe, "CAF Logistics Force Protection". 12.

⁷³ *Ibid.*, 17.

⁷⁴ Peter Jensen, *Hand-to-Hand Combat and the use of Combatives Skills*. 1.

⁷⁵ Canada. Department of National Defence. *Duty with Honour: The Profession of Arms in Canada*. Ottawa. Chief of the Defence Staff. Canadian Forces Leadership Institute. 2003. 32.

⁷⁶ Canada. Office of the Judge Advocate General and Canada. *Code of Conduct for CF Personnel*. Ottawa: Issued under the authority of the CDS. 2003. 1-1.

⁷⁷ Canada. Office of the Judge Advocate General, *Law of Armed Conflict at the Operational and Tactical Levels*. Ottawa: Issued under the authority of the CDS. 2001. 2-1.

subordinates.⁷⁸ Additionally CAF members are also obliged to follow all military law and Canadian law as they are subject to the Code of Service Discipline at all time.⁷⁹

The CAF has two levels of force available, deadly and non-deadly (legitimate forms of non-deadly force include striking, pushing or physically restraining threats).⁸⁰ Although deadly force can be justified in extreme situations, the guiding principle is to use the minimal force required to stop the perceived threat.⁸¹ The goal is to do as little damage as possible to achieve the mission. For the CAF this should highlight a need to provide all members with as many “Use of Force” options as possible to do their jobs. If troops only receive training in lethal force then that is their only response option. To help ensure the CAF is following LOAC and other legal principles of only using the minimal force required, it should implement a UDPS program for all members to ensure members have the training and understand how to apply “Use of Force” principles appropriately.

A critical component in all this for the CAF is that although LOAC and ROE govern how “Use of Force” is applied on international operations, domestically it will be governed by the Criminal Code.⁸² This is the same manner for how legitimate “Use of Force” issues are governed for domestic police organizations. In 1999 the Canadian Association of Chiefs of Police worked together to develop a national “Use of Force” framework.⁸³ Its purpose was to design a model that helped police make tactical decisions and allow them to explain their actions.⁸⁴ It was

⁷⁸ Canada. Office of the Judge Advocate General and Canada. Code of Conduct for CF Personnel. 1-3.

⁷⁹ *Ibid.*, 2-19.

⁸⁰ Canada. Department. of National Defence, Use of Force in CF Operations. Ottawa: National Defence Headquarters. 2001. 1-6.

⁸¹ *Ibid.*, 1-12.

⁸² *Ibid.*, 1-3.

⁸³ Board of Directors, A National Use of Force Framework. The Canadian Association of Chiefs of Police. 2000. 3.

⁸⁴ *Ibid.*, 4.

designed to link situational and behavior factors⁸⁵ to help the officer make an assessment about what they perceived as a threat and be able to articulate why they believed it to be a threat.⁸⁶

Ultimately police use force to gain control of a subject or a situation, using no more force than is reasonably necessary to minimize harm.⁸⁷ There is no formula to determine how much force to use, but through training⁸⁸ and use of the “Use of Force” framework, police learn how to conduct quick risk assessments and select appropriate tactical responses to situations. Section 2 of the Criminal Code recognizes members of a police service as Peace Officers under the law and Section 25 of the Criminal Code authorizes them to use force in the execution of their duties.⁸⁹ The Criminal Code in Section 37 also authorizes deadly force if the situation requires it.⁹⁰ It is also important to note that in section 26, the Criminal Code controls the amount of force authorized by ensuring that those authorized to use force can be held criminally accountable if the force is excessive.⁹¹ To help ensure the police officer does not use excessive force they are trained to assess several key factors like the presence of weapons, threat cues, displayed intention, physical access and subject physicality (size, gender, etc.) to determine the likelihood and level of violence possible.⁹² Once the threat assessment is made the officer will then choose a response option ranging from verbal direction, soft physical control (escort position), hard physical control (strikes and locks), intermediary weapons (impact weapons or conductive energy weapons), or deadly force (firearms).⁹³ The system is dynamic and response options can

⁸⁵ *Ibid.*

⁸⁶ *Ibid.*, 9.

⁸⁷ Barry, Leo (Commissioner), Commission of Inquiry Respecting the Death of Donald Dunphy: Royal Newfoundland Constabulary - Use of Force Manual. Newfoundland and Labrador. 2016. 2.

⁸⁸ *Ibid.*, 5.

⁸⁹ *Ibid.*

⁹⁰ *Ibid.*, 6.

⁹¹ *Ibid.*

⁹² *Ibid.*, 7.

⁹³ *Ibid.*, 8-9.

be escalated or de-escalated based on how the subject responds. The whole process is about ensuring the police officer has a variety of response options available for any level of threat they could potentially face.

The authority of civilian police to use force and their accountability when using excessive force is derived from their Peace Officer status granted under the Criminal Code. This is also relevant to the CAF because when operating domestically (without ROE) they will be governed by the Criminal Code and could also be given Peace Officer status. Section 2 of the Criminal Code already grants Peace Officer Status to members appointed under NDA section 156 (Military Police) and any CAF member when performing duties of the Governor in Council. The Queens Regulations and Orders (QR&Os) under Chapter 22 then further refines this designation of Peace Officer status to include when the CAF has been requested to conduct activities by the Minister of Public Safety or the Commissioner of the RCMP (major threat operations) or by the Assistance to Federal Penitentiaries Order (prison security).⁹⁴ The reality is that CAF members could be asked to do similar tasks that domestic police do but without the same training in defensive tactics, nor the same understanding of the proper application of the “Use of Force”. This kind of situation is unfair to the CAF members required to act, and it is unfair to Canadian citizens who expect that any law enforcement activity will be conducted with their safety as a priority.

UDPS training will not only ensure CAF members understand how to use force and provide them with the skills to protect themselves, it also makes them more effective when deployed. These skills provide them with confidence if they have to fight.⁹⁵ Members of the military, like civilian police officers, need to take in information, analyze it and make decisions

⁹⁴ Thomas Flavin (Western Area AJAG), email to Paul King (author), March 27, 2020.

⁹⁵ Mann, "Every Soldier a Rifleman: Army Logician,". 47.

quickly.⁹⁶ A recent study looked at how training soldiers in combatives affected their perception of their own ability to perform under stress.⁹⁷ The result showed their confidence to protect themselves had increased.⁹⁸ These programs develop mental toughness, fitness and a philosophical understanding that the individual can handle any situation.⁹⁹ Strengthening mental and physical toughness can also strengthen emotional toughness which improves an individual's resilience to being able to overcome unforeseen stressors.¹⁰⁰ Activities like BJJ can make people feel safe in the middle of a confrontation.¹⁰¹

When a person encounters a high stress situation their body will trigger a sympathetic nervous system response releasing adrenaline and increasing heartrate, respiration, and muscle tension, all of which affect skill performance. Its effects however, can be reduced by training and preparation.¹⁰² Breathing control,¹⁰³ mental rehearsals,¹⁰⁴ and scenario-based training¹⁰⁵ all help inoculate the individual to stress and teach them how cope with it. Some other studies have looked at how police officers perform when conducting high stress or high anxiety activities like conducting an arrest.¹⁰⁶ Although high anxiety activities can reduce performance, it was noted that police officers who practiced martial arts outside of their work performed better during high anxiety activities. More experience in these types of situations means they likely pick up threat

⁹⁶ Ole Boe, "Does Practicing Close Combat Improve the Perceived Ability to Perform Better?" *Procedia - Social and Behavioral Sciences* Vol 190. 2015. 410.

⁹⁷ *Ibid.*, 411.

⁹⁸ *Ibid.*, 414.

⁹⁹ U.S. Department of the Navy, Marine Corps Martial Arts Program (MCMAP). MCRP 3-02B. Washington DC: Headquarters United States Marine Corps. 2011. 1-3.

¹⁰⁰ Christopher J. Mattos, "Combatives: More than "Just PT"" *Infantry (Online)* 104, no. 3. 2015. 39.

¹⁰¹ David J. Ley, "The Psychology of Brazilian Jiu Jitsu: Why has BJJ Become so Popular, and Why does it Inspire such Dedication?" *Psychology Today*. Dec 12, 2014.

¹⁰² Barry, Commission of Inquiry Respecting the Death of Donald Dunphy: Royal Newfoundland Constabulary - Use of Force Manual. 22.

¹⁰³ *Ibid.*, 29.

¹⁰⁴ *Ibid.*, 30.

¹⁰⁵ *Ibid.*, 31.

¹⁰⁶ Peter G. Renden et al., "Effects of Anxiety on the Execution of Police Arrest and Self-Defense Skills," *Anxiety, Stress & Coping* 27, no. 1. 2014.101.

cues faster and have quicker responses to the situation, since they have a better understanding of what is happening.¹⁰⁷

Although there are many benefits of having a UDPS program, there are some criticisms. The main two are about time and training injuries. There is never enough time to complete all the training required for any activity. This criticism is just not valid if the values and benefits of such a program are justified. Another aspect of time is time lost for operational readiness when members are injured during UDPS training. Injuries are a normal part of any type of training but some of the concern is derived by statistics coming out of Mixed Martial Arts (MMA) which has suggested an injury rate of up to 70%.¹⁰⁸ Other studies on actual U.S. Army combative competitions has shown more realistic statistics. Two such competitions were reviewed and it was determined that 34.4% received injuries and 14.8% received injuries that put them on occupation limited duties. It is also important to note that of all the injuries, less than 10% were the result of grappling. During U.S. Army basic training about 25% of male recruits are injured and 50% of females are injured. It is also interesting to note that during Operation Iraqi and Enduring Freedom, non-combat injuries requiring ongoing medical care was as high as 34%.¹⁰⁹ These statistics seem to indicate that U.S. combatives training is no more dangerous than other types of US Army training.

In 2014, Israel reviewed soldier injuries as a result of Krav Maga training and noted that of 916 reports, 52% sustained upper limb injuries, 26% sustained lower limb injuries, 12% sustained body injuries and 10% sustained head injuries. Most important was that only 3.5%

¹⁰⁷ Peter G. Renden et al., "Police Arrest and Self-Defence Skills: Performance Under Anxiety of Officers with and without Additional Experience in Martial Arts," *Ergonomics* 58, no. 9. 2015. 1504.

¹⁰⁸ Jonathan I. Stuart et al., "Injuries Sustained during Modern Army Combatives Tournaments," *Military Medicine* 183, no. 9-10. 2018. 378.

¹⁰⁹ *Ibid.*, 381.

required some sort of surgical intervention and the majority were able to immediately return to active duty.¹¹⁰ Any type of physical activity will result in some level of injuries but again if the benefits of a UDPS program are desired it must be accepted that some injuries will happen. To put UDPS type injuries into perspective a 2013 study in Canada reported that hockey was responsible for half of all head injuries that sent young Canadian athletes to the hospital.¹¹¹ Hockey is a contact sport and it is a recreational activity, yet injuries are accepted as part of the activity. UDPS is about making members better at operating on deployments so minor training injuries should be deemed acceptable when preparing for operational readiness.

The goals of any UDPS program should be to develop fighting ability and allow trainees to understand the application of force. It should teach them how to apply different levels of force to different situations and build their confidence when operating in high stress environments.¹¹² It needs to be simple to teach and use¹¹³ and it needs to be flexible so it can meet a variety of operational requirements from combat to detainee handling.¹¹⁴ The training needs to be realistic and it must put the trainees into a state of high awareness to mimic stress, fear, and anxiety.¹¹⁵ This helps inoculate the trainee to situational stress and increases the likelihood they can perform in times of high anxiety.¹¹⁶ The amount of time required to get a trainee comfortable with the skill sets can vary. Some experts state that 80 hours of training spread out over four to five hours

¹¹⁰ Uri Farkash et al., "Prevalence and Patterns of Injury Sustained during Hand to Hand Combat Training (Krav-Maga)," *Military Medicine* 182, no. 11-12. 2017. 2006-2008.

¹¹¹ Carmen Chai, "Ice Hockey Makes Up Nearly Half of all Head Injuries in Young Canadian Athletes," accessed Apr 05, 2020.

¹¹² Jensen, Hand-to-Hand Combat and the use of Combatives Skills. 1-2.

¹¹³ Blanton, "Hand to Hand Combatives in the US Army. 18.

¹¹⁴ Jensen, Hand-to-Hand Combat and the use of Combatives Skills. 1.

¹¹⁵ John Thomasson et al., "An Analysis of Firearms Training Performance among Active Law Enforcement Officers in the USA," *The Police Journal: Theory, Practice and Principles* 87, no. 4. 2014. 232.

¹¹⁶ *Ibid.*

per week is needed¹¹⁷ while others claim 25 hours¹¹⁸ of training with regular follow up refresher training is sufficient.¹¹⁹

The techniques required should cover a similar range as those taught by both the U.S. Army¹²⁰ and the U.S. Marine Corp.¹²¹ Techniques need to ensure the trainee understands the basics of striking, takedowns, grappling and subject control. Most of all the trainee needs to develop a fighting mind and be ready for confrontation no matter what form it takes. This concept was recognized by George S. Patton when he called for the mental practice of engaging in combat.¹²² Perhaps one of the best training methods to help develop this mental toughness is controlled competition. These events can simulate anxiety and stress which help the trainee learn ways to control their emotions. These experiences can be very realistic and as long as the rules put in place are safe, they can be a valuable learning tool.¹²³

As Canada's involvement in international peace operations continues and as more domestic security operations arise all CAF members will be interacting with combatants, non-combatants. During these interactions CAF members will find they will need to know how to communicate, de-escalate violent situations, and apply appropriate amounts of force when required. When using force CAF members will be governed by international law (LOAC), the military code of conduct, ROE and domestic law (Criminal Code of Canada) in order to ensure accountability and to ensure protection for both the members themselves and those they oversee.

¹¹⁷ Peter Jensen and Susan Goodman, "Combat Feedback from US Army Combatives Instructors," *Infantry (Online)* 106, no. 3. 2017. 14-15.

¹¹⁸ Blanton, "Hand to Hand Combatives in the US Army. 57.

¹¹⁹ Farkash, "Prevalence and Patterns of Injury Sustained during Hand to Hand Combat Training (Krav-Maga)," 2006.

¹²⁰ U.S. Department of the Army, *Combatives. FM 3-25.150* (Washington, DC: Headquarters Department of the Army. 2017. i-ii.

¹²¹ U.S. Department of the Navy, *Marine Corps Martial Arts Program (MCMAP). MCRP 3-02B. iiv-ix.*

¹²² Barrett, "Unarmed and Dangerous: The Holistic Preparation of Soldiers for Combat," 103.

¹²³ *Burgees, Steve*. "Lieutenant-Colonel Steve Burgess - Military Combatives Grappling Championships". YouTube video, 10:26. 24 Sep, 2017.

This protection is only valid as long as the member is properly instructed and trained in the “Use of Force”. This training will ensure they know how to protect themselves and how to apply force correctly to many different situations. This training will give them confidence to function in stressful environments and ensure they know how to fight unarmed if required.

BIBLIOGRAPHY

- ADM(RS). "Evaluation of Canadian Armed Forces Operations". Government of Canada, Nov, 2017. <https://www.canada.ca/en/department-national-defence/corporate/reports-publications/audit-evaluation/evaluation-canadian-armed-forces-operations.html>
- Barrett, Clark C., PhD. "Unarmed and Dangerous: The Holistic Preparation of Soldiers for Combat." *Ethical Human Psychology and Psychiatry* 13, no. 2. 2011. 95-114. <https://search-proquest-com.cfc.idm.oclc.org/docview/882898998?accountid=9867>.
- Barry, Leo (Commissioner), Commission of Inquiry Respecting the Death of Donald Dunphy: "Royal Newfoundland Constabulary - Use of Force Manual", 47. Newfoundland and Labrador. (23 Sep, 2016). <https://www.ciddd.ca/documents/exhibits/P-0624.pdf>.
- Blanton, James F. "Hand to Hand Combatives in the US Army". U.S. Army Command and General Staff College, Fort Leavenworth, KS 66027-2301. 2008.
- Boe, Ole. "Does Practicing Close Combat Improve the Perceived Ability to Perform Better?" *Procedia - Social and Behavioral Sciences*. Vol 190. 2015. 409-415. <https://www.sciencedirect.com/science/article/pii/S1877042815032607>.
- Board of Directors. "A National Use of Force Framework." The Canadian Association of Chiefs of Police, 2000. https://www.cacp.ca/cacp-use-of-force-advisory-committee-activities.html?asst_id=199.
- Burgees, Steve. "Lieutenant-Colonel Steve Burgess - Military Combatives Grappling Championships". YouTube video, 10:26. Posted by "Combat Capital Parley". 24 Sep, 2017. <https://www.youtube.com/watch?v=cjrcKcqGb5Q>.
- Burgees, Steve. "CAF Story | Black Belt". YouTube video, 2:50. Posted by "Canadian Armed Forces". 6 Apr, 2018. <https://www.youtube.com/watch?v=RQs-pdq59Vs>.
- "Canadian Army Reserve." Government of Canada, Canadian Army Website. Accessed Apr 01, 2020. <http://www.army-armee.forces.gc.ca/en/reserve/index.page>.
- Canada. Dept. of National Defence. *Use of Force in CF Operations*. Ottawa: National Defence Headquarters, 2001.
- Canada. Dept. of National Defence and Canada. *Duty with Honour: The Profession of Arms in Canada*. Ottawa: Published under the auspices of the Chief of the Defence Staff by the Canadian Defence Academy - Canadian Forces Leadership Institute, 2003.
- Canada. Office of the Judge Advocate General. *Law of Armed Conflict at the Operational and Tactical Levels*. Ottawa: Issued under the authority of the CDS, 2001.

- Canada. Office of the Judge Advocate General. *Code of Conduct for CF Personnel*. Ottawa: Issued under the authority of the CDS, 2003.
- Chai, Carmen. "Ice Hockey Makes Up Nearly Half of all Head Injuries in Young Canadian Athletes." Accessed Apr 05, 2020. <https://globalnews.ca/news/437551/ice-hockey-makes-up-nearly-half-of-all-head-injuries-in-young-canadian-athletes/>.
- Cox, Brian. "Was Canada's Mali Mission Worth It? Absolutely." Accessed Apr 26, 2020. <https://www.cbc.ca/news/opinion/mali-mission-1.5272076>.
- Criminal Code of Canada, RSC 1985, C-46. <https://laws-lois.justice.gc.ca/eng/acts/c-46/index.html>
- Donaldson, Bruce. (What support to the COVID-19 response could the CAF & DND provide if asked.) *Interview with Dave Perry*. *Canadian Defence and Foreign Affairs Institute*. Podcast audio. March 19, 2020, https://www.cgai.ca/what_support_to_the_covid19_response_could_the_caf_dnd_provide_if_asked
- Di Donato, Valentina, Nicola Ruotolo, and Laura Smith-Spark. "Italy Calls in Military to Enforce Coronavirus Lockdown as 627 People Die in 24 Hours." *CNN*, 20 Mar, 2020. <https://www.cnn.com/2020/03/20/europe/italy-military-coronavirus-intl/index.html>.
- Dorn, A. Walter and Joshua Libben. "Preparing for Peace: Myths and Realities of Canadian Peacekeeping Training." *International Journal* 73, no. 2 (2018): 257-281. <https://journals.sagepub.com/doi/10.1177/0020702018788552>.
- Farkash, Uri, Daniel Dreyfuss, Shany Funk, and Uriel Dreyfuss. "Prevalence and Patterns of Injury Sustained during Hand to Hand Combat Training (Krav-Maga)." *Military Medicine* 182, no. 11-12 (1 Nov, 2017): 2005-2009. [https://academic.oup.com/milmed/search-results?page=1&q=prevalence%20and%20patterns%20of%20injury%20sustained%20during%20hand%20to%20hand%20combat%20training%20\(Krav-Maga\)&fl_SiteID=6110&SearchSourceType=1&allJournals=1](https://academic.oup.com/milmed/search-results?page=1&q=prevalence%20and%20patterns%20of%20injury%20sustained%20during%20hand%20to%20hand%20combat%20training%20(Krav-Maga)&fl_SiteID=6110&SearchSourceType=1&allJournals=1).
- Grossman, Dave. "On Killing: The Psychological Cost of Learning to Kill in War and Society." Vol. Rev. Ed. New York: Open Road Media, 2014. web.a.ebscohost.com/cfc.idm.oclc.org/ehost/detail/detail?vid=0&sid=a1404e1a-95ba-4f4e-aa4b-ce535dd079a2%40sdc-v-sessmgr03&bdata=JnNpdGU9ZWwhvc3QtbGl2ZSZzY29wZT1zaXRl#AN=826211&db=nlebk.
- Hill, David. "Finding the Right Balance of Stability to Combat Capability in the Canadian Army's Training System." Canadian Forces College, 2014. <https://www.cfc.forces.gc.ca/259/290/301/286/hill.pdf>.

- Horn, Bernd. "No, but Yes. Military Intervention in the New Era: Implications for the Canadian Armed Forces." Canadian Defence and Foreign Affairs Institute, 2015.
https://www.cgai.ca/no_but_yes_military_intervention_in_the_new_era
- Jensen, Peter. "Hand-to-Hand Combat and the use of Combatives Skills: An Analysis of United States Army Post-Combat Surveys from 2004-2008". West Point, NY 10996: Center for Enhanced Performance, 2014.
https://www.researchgate.net/publication/271703433_Hand-to-Hand_Combat_and_the_Use_of_Combatives_Skills_An_Analysis_of_United_States_Army_Post-Combat_Surveys_from_2004-2008.
- Jensen, Peter and Susan Goodman. "Combat Feedback from US Army Combatives Instructors". *Infantry (Online)* 106, no. 3 (Jul, 2017): 14-18.
<https://search.proquest.com/docview/2072681337/fulltextPDF/CC335C7C29E64AF9PQ/1?accountid=9867>.
- Lee-Barron, James. (2015). Unarmed Combat training in the First World War.
https://www.researchgate.net/publication/282075361_Unarmed_Combat_training_in_the_First_World_War
- Levitz, Stephaine. "Military Revising Domestic Strategy After Olympics Reveal Huge Flaws." *The Globe and Mail*, 14 Feb, 2011.
<https://www.theglobeandmail.com/news/politics/military-revising-domestic-strategy-after-olympics-reveal-huge-flaws/article566321/>.
- Ley, David J. "The Psychology of Brazilian Jiu Jitsu: Why has BJJ become so popular, and why does it inspire such dedication?" *Psychology Today*, Website, 12 Dec, 2014.
<https://www.psychologytoday.com/ca/blog/women-who-stray/201412/the-psychology-brazilian-jiu-jitsu>.
- Mann, David Scott. "Every Soldier a Rifleman: Army Logistician." *Army Logistician* 36, no. 1 (Jan, 2004): 45-48. <https://search.proquest.com/docview/197281622?accountid=9867>.
- Mattos, Christopher J. "Combatives: More Than "Just PT"". *Infantry (Online)* 104, no. 3 (Jul, 2015): 34-39. <https://search-proquest-com.cfc.idm.oclc.org/docview/1784590138?accountid=9867>.
- McCabe, A.M. "CAF Logistics Force Protection." Canadian Forces College, 2014.
<https://www.cfc.forces.gc.ca/259/290/301/305/mccabe.pdf>.
- McPhail, Ian. *Chairperson-Initiated Complaint and Public Interest Investigation regarding Policing in Northern British Columbia-Interim Report*. Commission for Public Complaints Against the RCMP, 2015.
- Melanson, Ryan. "Military Combatives and Grappling." *Trident Newspaper*, Mar 9, 2018.
<https://tridentnewspaper.com/military-combatives-grappling/>.

- Murphy, Kim. "Providing Security at Vancouver Olympics is a Daunting Task." *Los Angeles Times*, 11 Feb, 2010. <https://www.latimes.com/archives/la-xpm-2010-feb-11-la-na-olympic-security11-2010feb11-story.html>.
- Nash, S. M., "On Guard: Close Quarters Operations Training for the Canadian Forces." Canadian Forces College, 2003. <https://www.cfc.forces.gc.ca/259/290/289/286/nash.pdf>
- "Peace Support Operations (1954-Present). Canadian Armed Forces. Military History. War and Operations." Government of Canada. Accessed Apr 2, 2020. <https://www.canada.ca/en/services/defence/caf/militaryhistory/wars-operations/peace-support.html>.
- Pellerin, Daniel R. "Sharpening the Sabre: Canadian Infantry Combat Training during the Second World War." University of Ottawa, 2016. https://ruor.uottawa.ca/bitstream/10393/34206/1/Pellerin_Raymond_Daniel_Ryan_2016_sis.pdf.
- Renden, Peter G., Annemarie Landman, Geert Savelsbergh and Raoul R. D. Oudejans (2015). "Police arrest and self-defence skills: performance under anxiety of officers with and without additional experience in martial arts." *Ergonomics* 58:9, 1496-506. [https://www-tandfonline-com.cfc.idm.oclc.org/doi/full/10.1080/00140139.2015.1013578](https://www.tandfonline-com.cfc.idm.oclc.org/doi/full/10.1080/00140139.2015.1013578)
- Renden, Peter G., Annemarie Landman, Suzanne F. Geerts, Sander E.M. Jansen, Gert S. Faber, Geert J.P. Savelsbergh & Raoul R.D. Oudejans (2014). Effects of anxiety on the execution of police arrest and self-defense skills. *Anxiety, Stress & Coping*, 27:1, 100-112, DOI: 10.1080/10615806.2013.810213
- Sajjan, Harjit S. (Minister of National Defence). *Department of National Defence and the Canadian Armed Force 2019-20 Departmental Plan*: Government of Canada, 2019. <https://www.canada.ca/content/dam/dnd-mdn/documents/departmental-results-report/2019/english/DP%202019-20%20DND%20English.pdf>
- Stevens, Michael A. "Canadian Armed Forces Operations from 1990-2015". Valcom Consulting Group Inc., Nov, 2015. https://cradpdf.drdc-rddc.gc.ca/PDFS/unc214/p803179_A1b.pdf.
- Strong Secure Engaged. National Defence, 2017. <http://dgpaapp.forces.gc.ca/en/canada-defence-policy/docs/canada-defence-policy-report.pdf>.
- Stuart, Jonathan I., Ian L. Hudson, Simon A. Sarkisian, Michael P. Simpson, and Benjamin P. Donham. "Injuries Sustained during Modern Army Combatives Tournaments." *Military Medicine* 183, no. 9-10 (6 Feb, 2018): 378-382. <https://academic.oup.com/milmed/article/183/9-10/e378/4840555>.
- Thomasson, John, Dean R Gorman, Cathy D Lirgg, and Douglas J Adams. "An Analysis of Firearms Training Performance among Active Law Enforcement Officers in the USA." *The Police Journal: Theory, Practice and Principles* 87, no. 4 (2014): 225-33.

U.S. Department of the Army. Mar 2017. *Combatives. FM 3-25.150*. Washington, DC: Headquarters Department of the Army.

U.S. Department of the Navy. Nov, 2011. *Marine Corps Martial Arts Program (MCMAP). MCRP 3-02B*. Washington DC: Headquarters United States Marine Corps.

Webster's Third New International Dictionary of the English Language, Unabridged. Springfield, MA: Merriam-Webster, 1993. <http://www.merriam-webster.com/>.