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## OUTSIDE OF THE TRIBE: CHALLENGING THE IMPLEMENTATION OF LIGHT URBAN SEARCH AND RESCUE WITHIN THE CANADIAN ARMED FORCES

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**JCSP 43 DL**

***Exercise Solo Flight***

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**OUTSIDE OF THE TRIBE:  
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*“Human beings, as a rule, simply don't accept things that don't fit their worldview.” Matt Haig*

Tribalism is defined by the Cambridge Dictionary as “a very strong feeling of loyalty to a political or social group, so that you support them whatever they do.”<sup>1</sup> Tribalism can cause individuals to reject other opinions purely on the basis of the argument, without being prepared to examine the arguments that surround an issue objectively. The implementation of Light Urban Search and Rescue (LUSAR) as a mission task within the Canadian Armed Forces (CAF) Primary Reserve is occurring as result of an ideal espoused by the highest levels with Canadian Defence. This ideal, while noble in concept, has been supported through tribal thinking that has discounted views that do not support the implementation as initially envisioned. Views reinforcing the implementation of this concept and capability are supported and views contrary to the implementation are rejected or ignored. As such the premise behind the LUSAR capability within CAF is flawed and therefore the implementation and execution are unlikely to be successful as currently planned for. Instead of developing a capability aimed at supporting a broader urban search and rescue task, CAF should focus on providing a capability that is aligned with the more likely tasks of providing consequence management to an urban disaster scenario. Members who receive Urban Search and Rescue (USAR) training can act as subject matter experts to larger deployments of CAF personnel responding to structural collapse situations of safety risks and permissible risks. Included in this capability should be additional resiliency training to prepare CAF members for what they can encounter in consequence management.

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<sup>1</sup> Cambridge Dictionary, <https://dictionary.cambridge.org/>

## The CAF LUSAR Concept

The concept of LUSAR was outlined in the Canadian Defence Policy as a new capability for Reserves.<sup>2</sup> This capability is defined as “full time capability provided through part time service”.<sup>3</sup> This model will provide minimal capability to conduct safe and effective search and rescue operations, from structures made of light weight material. There are immediate concerns with the CAF LUSAR model being based on structures that do not involve reinforced masonry.<sup>4</sup> Most structures in Canada, including single dwelling homes, use reinforced masonry in their construction. The employment concept is based on small teams who are able to swiftly deploy to an impacted site where single residential structures have been destroyed with personnel trapped in the rubble.<sup>5</sup> Examples of such a situation could be caused by a massive earthquake, other natural disaster or a manmade disaster. It should be noted that DND currently has several teams that are USAR qualified, at the medium level and holding some advanced skills, however these teams are comprised of Regular Force personnel, primarily firefighters in Trenton and Comox, as well as members of the Naval Construction Team in Esquimalt.<sup>6</sup>

The CAF LUSAR concept is based on teams of members generated from the Primary Reserve who will receive additional training beyond their normal trade training. To meet the national standard for LUSAR members will require 26 days of training per year.<sup>7</sup> This training is in addition to the normal 40 days per year for Primary Reserve members to retain competency

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<sup>2</sup> National Defence, *Strong Secure Engaged, Canada's Defence Policy*, 2017. 68. Search and Rescue was a continuous theme in the Defence Policy: it is mentioned 35 times. The greatest emphasis is on the air search and rescue.

<sup>3</sup> Ibid

<sup>4</sup> National Defence, “The Capability (Functional Concept, Structure and System)”, *Canadian Development Record CDR.5 Light Urban Search and Rescue*, September 2017. 1

<sup>5</sup> Ibid. 4

<sup>6</sup> National Defence, *Canadian Development Record CDR.5 Light Urban Search and Rescue Capability*, May 2017. 4

<sup>7</sup> National Defence, *The Capability*. 12.

in their primary trade. While this may not seem problematic on the surface, most Primary Reserve training occurs on evening and weekends: in essence members of CAF LUSAR are being asked to give up an additional 10 weekends per year. The training time for more advanced USAR is longer and more intensive which precluded it from becoming a consideration. Because the focus of the capability is based on generating a full time capability from part time soldiers, the capability was limited to the simplest of the USAR levels.<sup>8</sup> In its implementation plan, CAF attempts to reduce the limitations of LUSAR in contrast to the more advanced Medium Urban Search and Rescue (MUSAR) and Heavy Urban Search and Rescue (HUSAR) by creating tasks the teams can conduct. These tasks include reconnaissance tasks to assess critical access routes to target buildings, identify potential engineering resources, report utility status, report on rations and quarter facilities in proximity to target buildings and report general security levels.<sup>9</sup> The creation of these tasks appears to be created in isolation without vetting the concept through the first responders who would immediately be responding to an USAR situation.

### Enter the Tribe

Tribalism is not a new concept; however it has become prominent recently due to its use in describing political affiliations, primarily in Western society. It has been used to demonstrate how our thinking as a society has regressed into a more primitive state, characterized by polarization, insularity, lack of perspective and lack of compromise.<sup>10</sup> Contrary to popular thinking tribalism is not atavistic, but is generated by self-interest and rejection of views that are

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<sup>8</sup> National Defence, *Strong, Secure Engaged*. 68

<sup>9</sup> National Defence, "The Capability (Functional Concept, Structure and System)", 4.

<sup>10</sup> Rosen, Lawrence, "A Liberal Defense of Tribalism", *Foreign Policy*, January 2018. 1.

contrary to the prescribed view of the identity group.<sup>11</sup> Tribalism prevents individuals from the social group from accepting views that run contrary to the objectives of the tribe. Within CAF this can block individuals from fully analyzing options and considering other views that may change a selected course of action. However, the need to rise above tribalism is critical if we are to properly analyze requirements and provide best advice on a course of action. Only by pushing through tribal thought and embracing information from all sources are we able to make informed analysis and decisions.

“If you aren't just brought up in your tribe but interact with other people either directly or vicariously, through journalism and literature, you see what life is like from other points of view and are less likely to demonize them or dehumanize others and more likely to empathize with them.”<sup>12</sup>

Unfortunately, in the development of LUSAR, tribal views have persevered over broad objective analysis. The concept has been pushed through in spite of information that indicates that the employment model is not realistic. Any contrary information has been disregarded in the pursuit of swiftly putting a capability in place to meet a defence policy objective.

Tribalism is evident in the manner LUSAR has been rushed into development from an initial concept, with a desire to rapidly bring it through as an option within the new Canadian Defence Policy, “Strong, Secure, Engaged”. The concept to implement this capability within the Primary Reserve has been hasty. The development does not reflect thorough analysis on the capabilities being developed, their requirement in an emergency setting and the reality of the employment model. Based on the information available and observing previous responses to

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<sup>11</sup> Ibid

<sup>12</sup> Pinker, Steven, *On Intellectualism Tribalism – Conversations with Tyler Cowan*

major disasters, it is more prudent to assume that a CAF response will not be augmenting first responders in rescuing victims, but in recovery and mitigation or consequence management activities. To be effective the LUSAR concept requires context for its employment to include not only the task, but dealing with what will likely be encountered. This includes the training and preparation of CAF members for what they may encounter and planning for the follow on care following a potential LUSAR deployment.

### Understanding the response situation

The critical aspect in any search and rescue operation is time. “Since the fundamental purpose of USAR teams is to locate and extricate trapped victims, immediate life support is a critical function.”<sup>13</sup> Data shows that survival rates of rescued victims drops significantly after 24 hours, with extreme low chances for survival after 72 hours.<sup>14</sup> Therefore any response to an urban search and rescue scenario is best handled by first responders, e.g. firefighters, who are on immediate response time. By contrast the response time of CAF, particularly when a Reserve call out is required, is slow to get initiated and cuts into the critical initial 24 hour window. The only CAF search and rescue capability that is defined as a first response is the aeronautical response, for which CAF is uniquely equipped. To meet this response requirement, CAF has aircraft at 30 minutes notice for 40 hours a week and at two hours’ notice for the remaining hours of the week.<sup>15</sup> In contrast to this responsiveness, the current model for LUSAR is based on the Primary Reserve, with an expectation that citizen soldiers, with civilian employment, will be

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<sup>13</sup> Public Safety Canada, *Canadian Urban Search and Rescue (USAR) Classification Guide*

<sup>14</sup> Canadian Army, *Light Urban Search and Rescue (LUSAR): Decision brief to the Army Capability Development Board*, 13 June 2017. Information was extracted from the Office for the Coordination of Humanitarian Affairs. After 24 hours survivability is less than 40% and this falls below 10 after 72 hours.

<sup>15</sup> 1 Canadian Air Division Orders, *search and Rescue Operations*, Volume 3, 21 June 2010

rapidly able to leave their employment and respond to a crisis in a faster response time than Regular Force personnel who have been dedicated to an IRU role. This model is based on assumptions instead of historical data for responses to emergencies. From after action reports for responses to domestic emergencies in Ontario we have learned that members of the Primary Reserve can have some members responding inside of a 12 hour window.<sup>16</sup> This response was for individuals and small teams of section size. Larger teams took more time, generally between 24 and 48 hours, for members to implement employment and family care plans before being able to respond.<sup>17</sup> However, it should be stressed that the response of members was sufficient that members were in place before a request from the province had been submitted and accepted by the Federal Government.

The response of any CAF elements to a domestic crisis is currently based on existing legislature for provinces to request assistance.<sup>18</sup> No commitment of CAF assets can occur prior to the province making a request to avoid undermining the public confidence in the provincial or territorial government to address the situation.<sup>19</sup> This requires a Request for Federal Emergency Assistance (RFA) from the afflicted province requesting support from the Canadian Armed Forces. This request requires approval from the specified provincial authorities, e.g. premier, minister for public safety, for the request to be made and then requires acceptance and approval by the designated minister, e.g. Minister of Public Safety, Minister of National Defence, at a National level. The only exception to this is the standing response of the air Search and Rescue

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<sup>16</sup> Joint Task Force Central, *Operation LENTUS After Action Report*, May 2017

<sup>17</sup> Ibid. It should be noted that CAF takes a proactive posture and begins mobilizing personnel and reducing notice to move in anticipation of a request from provincial or territorial governments.

<sup>18</sup> Canadian Joint Operational Command, *Standing Operational Orders for Domestic Operations*, 17 July 2014. Annex U, 1-2.

<sup>19</sup> Ibid

capability that the Royal Canadian Air Force (RCAF) provides.<sup>20</sup> The Defence Policy is clear that any Search and Rescue capabilities will only be deployed when they are called upon. This causes concern to the rescue aspect of LUSAR. Historically most RFA are submitted after 48 hours: the provinces use their own resources initially to deal with a crisis. As an example, during the fires in Fort McMurray the Province of Alberta made its request to the Canadian Government on 4 May, 72 hours after the community evacuation had begun due to fire.<sup>21</sup> This historical response time for provinces to request support, as well as feedback from provinces about their views on this response time have been disregarded in the development of the LUSAR construct by CAF.<sup>22</sup> While the responsiveness of CAF to most domestic operations is built around the requirement of the provinces and territories to request assistance, the LUSAR model continues to be developed on a premise that CAF assets will arrive within 24 hours of an incident. This is a flawed interpretation based on selective acceptance of information. Since the response of a CAF LUSAR team is based on the mobilization of the team coupled with a provincial demand, the probability of the team to respond in a timely manner to provide rescue operations is extremely limited. As a result the CAF LUSAR teams have a much higher probability of dealing with consequence management than executing rescue tasks.

Provinces are not inclined to request support from CAF for dealing with urban search and rescue because they have significant internal resources to address critical situations. Ontario currently has more than 31,000 trained firefighters within the province, of which 11,477 are full

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<sup>20</sup> Public Safety Canada, *Emergency Management – Search and Rescue*, <https://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/rspndng-mrgnc-vnts/nss/prgrm-en.aspx>

<sup>21</sup> Canadian Press, *Ottawa to provide assistance in battling Fort McMurray fire*, May 4, 2016

<sup>22</sup> Canadian Development Board *CDR.5 Light Urban Search and Rescue*, September 2017. 14. The BC Government made it quite clear that a formal request for federal Assistance would not be made before 72 hours. The Ontario Government made a similar declaration through their Provincial Emergency Operations Centre to Joint Task Force Central

time.<sup>23</sup> All of these individuals are trained to a minimum of a LUSAR standard, with most trained to higher standards (MUSAR and HUSAR). British Columbia has a smaller numbers of firefighters, approximately 14,000 of whom 4,000 are full time.<sup>24</sup> While a smaller number is expected due to the smaller population of British Columbia, this still represents a very large pool of trained first responders. As provinces have a vested interest to resolve situations and maintain public confidence in their ability to respond to a crisis, they will use the assets that they have control over to react and determine the extent of the situation before requesting aid for situations that exhaust their resources.

In addition to the first responder capability that fire fighters provide to their municipalities and provinces, there are currently four dedicated Heavy Urban Search and Rescue (HUSAR) teams across Canada (Vancouver, Calgary, Winnipeg and Toronto) with two more teams being developed (Montreal and Halifax).<sup>25</sup> These HUSAR teams are robust team comprised of over 100 members including rescue specialists, paramedics, doctors, structural engineers and specialized searchers (including canines) as well as other specialists.<sup>26</sup> These teams are equipped with heavy equipment and can rapidly deploy by road, as well as by air as air assets are available. While their mandate is provincial response, these teams have been deployed to assist other provinces, and are certified to respond internationally.<sup>27</sup> It should be noted that while these teams train consistently, they do not deploy frequently. The Vancouver based

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<sup>23</sup> Ontario Ministry of Community Safety and Correctional Services, *Fire Statistics*, data current as of 29 January 2018

<sup>24</sup> Mark, Karin, "B.C. Fire Chiefs call for fire-service reform: B.C. Chiefs and stakeholders work together to find ways to modernize the fire service", *Firefighting in Canada*, April 22, 2010

<sup>25</sup> Public Safety Canada, "Heavy Urban Search and Rescue", *Emergency Management*  
<https://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/index-en.aspx>

<sup>26</sup> City of Vancouver, *Heavy Urban Search and Rescue Task Force*, <http://vancouver.ca/home-property-development/urban-search-and-rescue.aspx>

<sup>27</sup> Ibid

Canada Task Force Team 1 deployed three times between 2005 and 2015.<sup>28</sup> By contrast the CAF LUSAR capability is based on the creation of small teams of platoon size (approximately 40 personnel) trained to the minimal USAR standard because of the time limitations for additional training imposed on Primary Reservists. Given the large capacity of USAR capabilities that exists within the larger provinces, it is highly unlikely that CAF assets will be required. While the CAF LUSAR concept indicates that the teams can embed with MUSAR and HUSAR teams, the limited skills of CAF members makes them a liability to the specialized MUSAR and HUSAR teams who are extensively trained to deal with collapses of all natures of structures. Additionally, the CAF LUSAR team is limited that they are not trained to enter collapsed structures without the approval of an engineer who holds a collapsed structural assessment qualification. This qualification does not exist within the team.<sup>29</sup> The team is also restricted in their ability to enter areas where tunneling through collapsed structures is required or where there are low oxygen levels.<sup>30</sup>

Between the requirement to wait for the province to deal with the situation first with its own first responders, and the relatively limited skills the CAF LUSAR teams will hold, it is unlikely that they will be called upon and employed as envisioned in the current CAF plan. To continue to disregard the information from the provinces on both their internal capabilities and willingness to request assistance creates a false scenario on which to develop a capability.

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<sup>28</sup> Stewart, Nadia, “Vancouver HUSAR Team wondering when they’ll be called to action again”, *Global News*, 28 August 2015.

<sup>29</sup> *Ibid.* 5.

<sup>30</sup> *Ibid.*

### An alternative solution

A concept different than LUSAR could be implemented based on the reality of conditions a CAF request for assistance would be likely to face, specifically time to respond and nature of the task on response. Given the known difficulties in receiving the request from the province and having teams deployed to the area of crisis, it can be implied that CAF response will not be in place before a period of 48 hours and most likely after at least 72 hours have elapsed from the initial emergency. If this is accepted, CAF can take the position that its response will be more focussed on consequence management. This concept provides more value to a stricken community, province or territory which may have exhausted its first responders during the initial 72 hours of the emergency, where the focus was on rescue operations. This is a critical decision to make as consequence management faces a different challenge from search and rescue, and requires a different mindset to succeed, along with a different training and employment concept. If CAF accepts this argument the decision to create a specific skillset is redundant. All the Joint Task Forces across Canada maintain an Immediate Response Unit (IRU) of roughly a battalion size (600- 700 personnel) on 24 hours' notice to respond to domestic emergencies.<sup>31</sup> This IRU receives limited specific training as they are prepared to respond to any nature of crisis. If there is an increased desire to prepare these forces to deal with consequence management, then some additional training is merited to prepare CAF members for what they can encounter during consequence management operations following structural collapses, due to either natural or man-made disasters.

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<sup>31</sup> Canadian Joint Operational Command, *Standing Operational Orders for Domestic Operations*, 17 July 2014.

CAF already has the Disaster Assistance Response Team (DART) that is designed to deal with consequence management, albeit through the provision of humanitarian support. Building a consequence management recovery operation could be founded on some of the existing capabilities that are embedded in the DART. This could include increased self-sufficiency for a responding force that alleviates burdens of support from the stricken zone.

Events such as the clearing of the World Trade Centre after 9-11 and the clean up after Hurricane Katrina provided valuable lessons for individuals who were involved in the consequence management / recovery operations. Individuals from 911 who dealt with the recovery task reported higher levels of physical and mental health issues.<sup>32</sup> These conditions were noticeably higher for members who had less experience with hazardous work and recovery operations and were more vulnerable due to the absence of site-specific hazard training.<sup>33</sup> A key takeaway is that any response to a structural collapse needs to ensure that any personnel responding have effective respiratory protection against industrial materials. A significant part of the mental stress comes from the recovery of bodies that are not complete. This situation damages the psyche of the recovering parties as work continues with bleak outcomes beyond getting the work completed and returning home.<sup>34</sup>

Preparing individuals for the difficulties they can face in a recovery operation is critical. This needs to be done in a timely manner so that resiliency can be built up. Members need to be trained how to effectively operate with proper personal protective equipment, including

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<sup>32</sup> Crane, Michael A., MD, MPH, Nomi C. Levy-Carrick, MD, MPhil, Laura Crowley, MD, Stephanie Barnhart, MD, MPH, Melissa Dudas, DO, Uchechukwu Onuoha, MD, MPH, Yelena Globina, MD, MPH, Winta Haile, BA, Gauri Shukla, MPH, and Fatih Ozbay, MD, “The Response to September 11: A Disaster Case Study”, *Global Health, Vol 8, Issue 4*. July-August 2014. 324,325.

<sup>33</sup> Ibid. 321.

<sup>34</sup> Melinek, Judy and T.J. Mitchell, *Working Stiff: Two Years, 262 Bodies, and the Making of a Medical Examiner*, Scribner, 12 August 2014

respirators. Members also need to have training to be able to deal with their potential role of extricating bodies that have had significant trauma as the cause of death. Medical professionals should be consulted to determine how exposure could occur without causing trauma during training. The premise behind this exposure is based on hospital models. Members of trauma teams deal with death on a daily basis and become more resilient to handling the impacts of dealing with dying or dead people.

The current CAF construct for LUSAR, as a capability to be generated by the Primary Reserve, has proceeded as a result of tribal thinking. Information, such as feedback from provinces on their requesting such support, has been pushed aside as irrelevant as it does not match the “tribe’s” view of what is needed. Instead work has continued to create a capability as originally envisioned, in spite of the impact this capability may have on existing skills, and the likelihood of this capability ever being deployed as envisioned. If the construct of LUSAR moves forward as planned, it will be another capability that delivers little to no actual benefit to CAF, Canada or the Canadian population. It is redundant to existing capabilities that are better qualified and more responsive. In spite of this information being readily available, thereby changing the situation, the LUSAR concept was premised on, it continues to move ahead. However, some of the skills being taught to the identified LUSAR cadre could be of benefit for preparing a broader CAF response to deal with a major emergency that would require the support of hundreds, if not thousands of CAF members to an urban emergency. One hopes that objective thought can overcome tribal thinking and change a non-required capability to one that would be more valuable in dealing with a major catastrophe.

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