



Arthur W. Gullachsen, *An Army of Never-Ending Strength: Reinforcing the Canadians in Northwest Europe 1944-1945.* Vancouver: University of British Columbia Press, 2021.

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Canada's contribution to the Second World War has been examined since before the war in Europe ended on 8 May 1945. The scholarship that has been generated is extensive, but largely focused on our fighting forces and how they defeated the forces facing them. Over the past decade, popular history has benefited from new works by authors like Mark Zuehlke, with his extensive series of book-length treatments covering

the Canadian Army in Italy and Northwest Europe. These histories, and others like them, have made the story of the Canadian Army in the Second World War much more accessible to a wider audience.

First glance indicates that there is not a lot left to discover that could enhance our understanding of the events of over eighty years ago. But first glances can be deceiving, and current events demonstrate that there may be benefits from a more detailed understanding of a war that is receiving significant popular treatment, but perhaps insufficient academic inquiry. As the possibility of large-scale combat operations, what the United States Army refers to as “LSCO,” becomes apparent in locations as diverse as the Ukraine and Taiwan, there is a pressing need to understand historical incidents of large-scale combat beyond the elements of combat itself, and more precisely focused on how combat power was generated and sustained. Our ability to replicate processes and structures that were used in the past could be predicated on an historical understanding of what has worked before.¹

For Canada, our most recent incident of combat of that nature is most certainly the Second World War. Yet our understanding of how to generate and sustain combat power is limited. The scholarship to this point has been largely devoid of detailed, book-length treatment of the subject from a Canadian perspective. Where studies do exist, they are generally allied in nature, and more specifically either American or British. Occasionally there are articles in either professional or historical journals, but in the main, there is a paucity of academic history that could be used by either professional logisticians or military officers. Arthur Gullachsen has now produced work that seeks to meet this need.

Addressing how the Canadian Army prepared for and then countered the attrition in soldiers and armoured fighting vehicles it experienced during the eleven-month campaign in Northwest Europe, Gullachsen asserts that the Canadian Army “effectively reinforced” the three combat arms which formed the basis of its fighting power – its infantry, armoured, and artillery units and formations (7). Going further, he argues that it was a “myth” that Canadian infantry units were regularly used by the

¹ For an example of how the United States Army is treating the problems associated with LSCO, interested readers should examine the historical studies found at <https://www.armyupress.army.mil/Books/Large-Scale-Combat-Operations-Book-Set/>.

Canadian Army to lead attacks at the beginning of “major set-piece operations in the summer of 1944” (5). This claim is a somewhat contentious one, given that some noted historians – Terry Copp and Russell Hart, specifically – have used their work to state the opposite.

Using a detailed analysis of primary sources, Gullachsen presents an easily understandable case. First, he outlines how personnel reinforcements were managed and moved to where they were needed, taking some time to address a period of approximately sixty days where there actually was a dearth of infantry specific reinforcements. Subsequently, he examines how armoured fighting vehicles and artillery pieces were managed and replaced as they became casualties. This is followed by an explanation of the doctrine in place at the time, which governed how the Canadian Army fought, or at least intended to fight, in engagements against the German Army. He then proceeds seriatim, walking through each period of the campaign, formation by formation, explaining their personnel levels and the state of their major pieces of fighting equipment. No other Canadian historical work has attacked this topic with an equal level of detail.

Some of the analysis is shocking, in particular when Gullachsen compares vehicle replacement rates for the Canadian Army with those of the German Army. In one particularly noteworthy table, he demonstrates how the 4th Canadian Armoured Division replaced 406 Shermans, Fireflies, and Stuart tanks in a five-month period. This is contrasted against the total German Panzer IV medium production of 1062 tanks for the same period. What makes this fact so compelling is for the Canadians, they were just one of the multitude of allied divisions that had to be reinforced in order to maintain its fighting strength. That one division could be reinforced to a level equating to 2/5 of their adversary’s entire tank production speaks to the fact that the Allies were backed by a level of industrial power that their foes could not hope to meet.

The book does an exceptional job of painting the immensity of the task for the Canadian Army as regards personnel and armoured fighting vehicle replacement during this one campaign. Alternatively showing the needs of the forces engaged in combat, and then portraying what they were able to get from their system, it leaves one wondering at contemporary capabilities in both these regards. His capable explanations, including his detailed portrayal of the doctrine extant at the time, enables

readers to understand the context in which decisions had to be made and to compare the applicability of the system as it existed with one that might have to be created today.

Gullachsen is arguably a master of the material that he has chosen to cover. He makes good use of the available evidence, principally primary sources from the time augmented by other relevant scholarship, to justify his claim. The writing itself is clear, which is no small task given the complex mass of statistics and data that he had to sort through in order to support his argument. While this is academic history, it is readable; not something that can always be said. Readers will go away with a balanced impression of why the Canadian Army in Northwest Europe fought the way that it did, and how it maintained its combat power from the perspective of people and armoured fighting vehicles. They will also likely come away with questions both from logistical and sustainment perspectives, and looking at how we chose to fight our battles. Both of these areas warrant further research and enhanced understanding.

As much as Gullachsen has supported his claim of effective reinforcement though, some will likely question the validity of the claim itself and whether it is enough to examine two aspects of how combat power is created, and then assert that they are the reason that the Canadian Army of 1944-1945 in Northwest Europe was “an Army of Never Ending Strength.” Contemporary Canadian military doctrine sees the creation and sustainment of combat power as far more involved than the author seems to allow for.

A modern perspective on the problem, as detailed in Canadian joint doctrine, sees that military power, and by extension combat power, are the combination of conceptual, moral, and physical components. In the physical realm, this specifically refers to “manpower, equipment, organizational structures, training, force readiness, force generation, and sustainment.”² Gullachsen’s use of the two elements of manpower and equipment largely leaves out the other elements of the physical component of combat power. A more open claim, with more attention paid to the sustainment of combat supplies for example, may have led to slightly different conclusions.

² Department of National Defence Joint Doctrine Branch, *Canadian Joint Doctrine* (Ottawa: Canadian Forces Experimentation Centre, 2009), pp. 2-3.
http://publications.gc.ca/collections/collection_2010/forces/D2-252-2009-eng.pdf .

It is also appropriate to argue that there should have been more emphasis placed on the units and formations which actually carried out the personnel and vehicle replacement. Readers looking to add to their knowledge of the Royal Canadian Service Corps or the Royal Canadian Ordnance Corps will have to look elsewhere to see how their contributions impacted the overall combat power of the Canadian Army. However, in fairness to the author, theirs was not the story he was trying to tell; the book is very much targeted at the misconception of a sustained manpower shortage, and how armoured vehicles were consistently replaced, ultimately generating sufficient combat power to win in Northwest Europe.

There are multiple lessons that can be drawn from this work. Staffs need to ensure their estimates are based on assumptions relevant to the context in which their forces are operating, not on historical data that may not fit the operating environment. Military leaders need to be agile of mind, and willing to change plans when the situation demands; operational and strategic agility, even on something as basic as replacement pools, need to be inculcated. Perhaps most important is understanding the idea that combat power must be continuously reinforced, and that it is not enough to simply generate forces ready to fight. Warfare, particularly at the scale experienced in the Second World War, is costly in both people and equipment, and nations need to be prepared to rapidly regenerate forces when losses can be anticipated. The contemporary military emphasis on “readiness” is amply justified in this volume.

Gullachsen has produced a capable academic history that warrants reading. It adds to our understanding of the Second World War, and what Canada did. Reading it raises additional questions worthy of study. Accepting Gullachsen’s argument, why did the conscription crisis of 1944 occur if there were in fact sufficient replacements in the pipeline? Why weren’t more non-infantry replacements forced to reroll to infantry when it became apparent that there was the potential for shortfalls? Was this decision a military one, or a political one? Lastly, looking at armoured vehicles and potential future needs, what are the impacts on a vehicle replacement system when one cannot draw from a common centralized pool of armoured fighting vehicles to meet your fighting formation’s needs?

Looking beyond Gullachsen’s work, we also need to have a detailed understanding of how sustainment, the daily resupply of food, fuel, water, ammunition

and medical supplies, took place. Knowing that much of the Canadian Army in Northwest Europe included coalition partners, a study of this nature could be beneficial to contemporary military officers in particular. This is not necessarily the most glamorous aspect of our military history, but developing an understanding from farm to factory to front-lines, of how soldiers were equipped, fuelled, fed, and kept ready to fight would be an extremely worthwhile undertaking.

An Army of Never-Ending Strength is a solid contribution to Canadian military history with broader applications than might at first be apparent in its claim. Its use of primary sources to build upon extant historical works adds clarity and enhances our overall comprehension of the subject beyond the all too brief treatment that this particular subject has generally received.³

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³ See J.L Granatstein, *Canada's Army: Waging War and Keeping the Peace* (Toronto: University of Toronto Press, 2002), pp. 278-279 & 291-295.