



OPERATIONAL READINESS THROUGH WARGAMING:

Scaling the Canadian Army for its Imminent Challenges

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As the Canadian Army races toward a strong, modernized, efficient force, the value of strategic and creative thinking cannot be overstated. Modern and effective equipment is important. However, understanding the tactics involved around these new capabilities is arguably as important as the capabilities themselves. Canada, alongside our allied nations, has come full circle to reincorporate an age-old exercise, used through ancient and modern warfare, for informing tactics and strategy: wargaming.

By definition, a war game is a simulation or modelling opportunity that reflects a military conflict scenario. It can be purposed to study decision making, strategy, deception or logistics by creating or recreating a scenario in which

each player is set against a cognizant, thinking enemy force in a controlled setting. While other training methods have their merits, none can replicate the complexity and comprehensiveness of conflict simulation achieved through wargaming. This is especially true when addressing higher-level formation training, up to the divisional level.¹

There has been recorded evidence of wargaming throughout history: from the ancient Greek historians Thucydides and Polybius analyzing tactical decisions, indirectly contributing to the study and rehearsal of warfare, to the more recent and notable example of the “Kriegsspiel” (war game in German) developed in the 1820s by Georg Leopold von Reisswitz for use by the



Colonel David Brassard (Commander of the 5 Canadian Mechanized Brigade Group) during a Canadian Mechanized Brigade Group war game, April 2025.

Prussian Army.² World War II saw and expanded the use of wargaming for planning operations and informing commanders, which has since progressed with modern, computer-assisted war games (along with modern access to information) that enhance the ability to model complex weaponry operations and enabling technologies.³

The Canadian Army is in the process of modernizing our force through many avenues: capabilities, technology, tactics, training, and force organization and structure. To investigate how new capabilities may fare against modern opponents, wargaming provides an incredible opportunity to test these capabilities and how we employ them in a safe, flexible and cost-effective environment. Wargaming provides us insights into the strategic thinking of both friendly and adversarial entities, capability requirements, and the doctrinal/conceptual strengths and weaknesses of both forces.

The strength of modern wargaming has been recognized by many of our allied partners. We see its importance demonstrated by, for example, the U.S. Army's Future Study Program, a series of strategic-level war games to analyze future security challenges and inform defence planning; the Australian–US Exercise TALISMAN SABRE, a multinational war game focusing on crisis-action planning and contingency response, enhancing both nations' military capabilities; and the UK-led Exercise CERBERUS, which focused on demonstrating warfighting capabilities and enhancing interoperability between British and German forces.⁴

As we look toward our own forces and capabilities, the Canadian Army has put wargaming to use in supporting efforts toward modernization. Most recently, for two weeks in April 2025, the Canadian Army Land Warfare Centre (CALWC), supported by the Canadian Joint Warfare Centre (CJWC) and the Army Modernization Team (AMT), coordinated a war game that tested the structure, employment and capabilities

of a 2027 and 2033 Canadian Mechanized Brigade Group (CMBG) against a capable peer adversary. The game was held in Valcartier, Quebec, over the course of two weeks. Two teams, representing a CMBG and an adversarial brigade group, met in a Euro-Atlantic theatre of operations. The scenario saw a meeting engagement in major combat operations, where both teams attempted to seize key objectives. In total, four spirals were conducted that played out the same scenario but modelled the brigade structures on current and future capabilities that are expected to be delivered between 2027 and 2033. Brigade staff members, ten on each team, were employed in their respective roles to ensure that players had the necessary background and knowledge to play the part appropriately and to identify capability gaps and weaknesses in employment that surfaced throughout the event. In total, players and observers submitted a total of 131 observations on a variety of tactical and operational topics.

While addressing key weaknesses, vulnerabilities and gaps in the current and proposed CMBG structures, some insights included:

“The Sense-Act gap... was identified as a challenge, as there was insufficient situational awareness to fully utilize equipment at the front and maximize its advantage. There were difficulties in maneuvering, coupled with a lack of offensive capability. The available Sense assets were not properly grouped, and there was no penetration into depth.”

“While the heavy cavalry regiment was effective in facing off against tank battalions, it led to large attrition rates. Speculative fire, including indirect fire (IDF) and scatterable minefields, were used, and the rules of engagement (ROE) may need to be reconsidered for a timelier response.”

“Regardless of the turn or spiral, we were outgunned... a re-evaluation of the counterbattery fight is necessary. The extended range of [rocket artillery] is critical to neutralize supporting artillery, allowing for better concentration of fire and enhanced manoeuvrability in close combat, thereby improving overall effectiveness.”

“Unmanned [and loitering munitions (LM)] systems require significantly less sustainment and offer a substantial impact that can be capitalized on... Using LMs as ISR (intelligence, surveillance and reconnaissance) platforms increases our identification capacity while also providing the ability to strike”

“HQs need smaller headquarters. The EW (electronic warfare) functions require the ability to provide decoy command posts (CP) and high-value targets (HVT)”

Upon completion of the war game, CJWC, CALWC, and the AMT compiled all the data, defined observable patterns and were able to make recommendations based on player contributions in conjunction with this data. A 42-page report detailed the war game structure, findings and recommendations and

has already been used as a stepping stone toward changes in the Canadian Army’s capability development plan moving forward.

After the successes of this event, and the incredible number of lessons learned from its execution, the Canadian Army looks toward our next bound in wargaming: warfighting at the division level. There were many aspects of warfighting that were not included in this past event, ranging from deep, shaping fire to the influence of space-based surveillance and interference of electronic warfare. Many of these aspects are becoming extremely influential in the current battlespace. As modernization continues to accelerate, new operational domains will need to be included in simulation exercises, continuing to prepare our staff for decision making in an increasingly complex, multi-faceted environment. To ensure that the Canadian Army looks to these areas for analysis, a war game campaign has been developed which will focus on shaping, enabling operations, as well as medical support, sustainment and logistics. It is time for the Canadian Army to play; to be an influential, involved participant in the evolution of modern warfare, and to make strides toward building a strong, technologically advanced, lethal force. 🍁

ABOUT THE AUTHOR

Major Halos, a Signals Officer by trade, is currently employed at the Canadian Army Land Warfare Centre (CALWC) in Kingston, Ontario. She joined the Canadian Armed Forces in 2016, and was posted to the Joint Signal Regiment in Kingston, Ontario, which included a deployment to Mali as part of Operation PRESENCE in 2019. She has had three children since joining the CAF and continues her employment at CALWC as a Wargaming Coordinator and Experimentation Team Lead.

ENDNOTES

1. Stuart Lyle, “The Role of Wargaming in Urban Operations Training,” *Canadian Army Journal* 22.1 (2024): 36–45.
2. Philip Sabin, *Simulating war: Studying conflict through simulation games* (London: Bloomsbury Publishing, 2012); Jorit Wintjes, “‘Not an Ordinary Game, But a School of War’: Notes on the Early History of the Prusso-German Kriegsspiel,” *Vulcan* 4, 1 (2016): 52–75. doi: <https://doi.org/10.1163/22134603-00401003>.
3. John Curry, “Professional wargaming: A flawed but useful tool,” *Simulation & Gaming* 51, No. 5 (2020): 612–631.
4. Australian Army, “Exercise Talisman Sabre,” June 26, 2025. <https://www.khanacademy.org/humanities/climate-project/x7467a46e12a31203:introduction-to-climate-change/x7467a46e12a31203:the-case-for-climate-optimism-1-3/a/read-the-need-for-climate-optimists-a-hopeful-generation-or-a-fearful-one>; British Army, “British Army demonstrates warfighting capability in Germany,” October 23, 2024, <https://www.army.mod.uk/news/british-army-demonstrates-warfighting-capability-in-germany/>.