

CLOSING THE GAP BETWEEN HOBBY AND PROFESSIONAL WARGAMING

by Captain Christopher Schwenck

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Introduction

Wargaming represents the core of the military decision-making process's vital fourth step: course of action analysis. It helps decision makers simulate contact with the enemy, exercise decision making, and analyze and refine a course of action. However, professional wargaming still suffers from a series of shortfalls. A misapplication of the wargame concept, a lack of professional gamers and game designers, and stovepiped accessibility prevent professional wargaming from reaching its full potential. Despite increased emphasis and standardization across the Department of Defense in the past decade, professional military wargaming could still learn much from its smaller hobby-focused cousin, as hobby gaming could provide a commercial-off-the-shelf solution to military wargaming's pitfalls.

Historical Background

For centuries, military strategists sought methods of simulating war to introduce general tactical concepts to officers and general staff that would allow them an opportunity to exercise their decision-making prowess. Early examples took their inspiration from chess and fall under a broad category of games called "war chess." Like classic chess, the pieces on the board symbolized different abstract types of military units, each with its own movement rules around a gridded board. As war chess evolved, pieces began to denote actual military units more closely, and the square spaces on the board came to signify real terrain like hills and lakes.¹ These early wargames did little to simulate actual conflict and served merely as intellectual exercises and introductions to terminology. As they evolved, they also became an incredibly unwieldy and expensive privilege, consisting of ornate pieces played on a large sand table modeling terrain, only accessible to military elite.

Modern hobby and professional wargaming trace their lineage back to 1824 when Prussian Lieutenant Georg Heinrich Rudolph Johann von Reisswitz published a set of wargaming rules and instructions called *Anleitung zur Darstellung militairischer manöver mit dem Apparat des Kriegsspiels (Representation of Tactical Maneuvers under the Guise of a Wargame)*. Reisswitz opted to scrap the system developed by his father, which used a large sand table and hand-carved pieces. Instead, he employed modern paper maps, used since the 1730s, that utilized contour lines to accurately indicate real-world

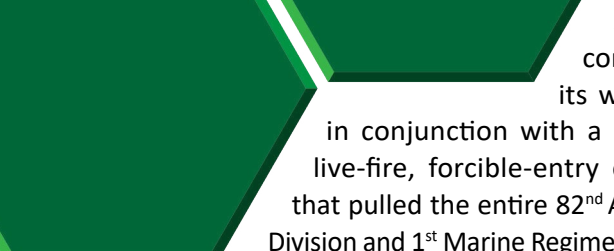
terrain and elevation on the potential future battlefield. Following a demonstration to Prussian Chief of Staff General von Muffling, Reisswitz's *Kriegsspiel* (wargame) became a mainstay among Prussian military officers. Even General Helmuth von Moltke, forefather of the U.S. Army's mission

command principles, became an avid player.² Since then, wargaming has evolved into numerous hobby and professional adaptations and has driven military planners to experiment with courses of action, exercise decision making, and to simulate hypothetical scenarios.

Misapplication of Wargames

Defining wargaming and its intended purpose is the first major hurdle both professional wargamers and military staff must overcome. In defining a wargame, professional naval game designer Peter Perla wrote, "Wargames revolve around the interplay of human decisions and game events....A wargame's maps, rules, pieces, or computers are only the media through which competing decisions are implemented and judged. Wargames are tools for gaining insights into the dynamics of warfare."³ For Perla, human decisions are the central focus of a wargame, and the wargame is only one side of a triangle of tools needed for the study of defense matters. Decision makers should use wargaming in addition to exercises and historical analysis, with all three offering unique insights: wargames emphasize human decisions; exercises test human or technological capability; history enables informed analysis of possible outcomes.⁴ Decision makers must choose the best tools to answer the applicable question.

Decision makers often confuse and misuse wargames and exercises. Millennium Challenge 2002 (MC '02) is the most infamous example of this in recent professional wargaming history. The U.S. Joint Forces Command (JFCOM) executed MC '02 in the summer of 2002 to simulate conflict between the United States and a potential Middle Eastern adversary. JFCOM intended to evaluate new military concepts such as effects-based operations, rapid decisive operations, and a standing Joint Force headquarters.⁵ MC '02 proved to be one of the most expensive concept developments in U.S. military history. The exercise cost \$250 million and grew to include 13,500 Service members over a 2-year development period.⁶ Despite its massive scale, MC '02 failed in its application of wargaming.



JFCOM conducted its wargame in conjunction with a massive live-fire, forcible-entry exercise that pulled the entire 82nd Airborne Division and 1st Marine Regiment out of their training cycles. However, the game jeopardized the viability of the exercise when the red (opposition) force, led by Marine Corps Lt. Gen. Paul Van Riper, managed to destroy 19 ships of the blue (friendly) force Carrier Strike Group. The notional casualties included several cruisers, five amphibious assault ships, and the carrier itself.⁷ In a real-world scenario, these losses would make the forcible entry operation impossible. The simulation's white cell, or game administrators, quickly called the JFCOM commander to inform him that the red force's actions had jeopardized the joint force, live-fire component of MC '02.

Consequently, the commander decided to notionally refloat the blue force fleet and continue as if nothing had happened. As JFCOM attempted to prove its concept, institutional bias inevitably compromised the game's integrity. Without an independent or unbiased arbitrator, the white cell manipulated the results and followed a script that maximized the blue force's capabilities and tied the red force's hands. JFCOM falsely confirmed the integrity of the game and in the immediate aftermath declared all concepts validated. However, 10 years after the exercise, the final 752-page JFCOM report detailed the limitations of the exercise and how artificialities had aided the blue force victory.⁸

Commercial solutions from the hobby realm or a contract producer could have benefitted MC '02. JFCOM attempted to assess too many variables in one joint wargame and exercise. Following the scientific method requires individually isolating the variables under investigation and evaluating them repetitively to confirm results. Without isolation, the experimenters cannot determine which variables affected which aspects of the simulation. The three variables JFCOM intended to validate suggest a required minimum of four iterations of the wargame: one for each variable plus one control without any variables. However, conducting the game in conjunction with an expensive, large-scale exercise eliminated this possibility. JFCOM had only one attempt.

A traditional hex-and-counter style wargame on a paper map could have provided the command with a cheaper, repeatable alternative to validate their concepts before moving to a large-scale exercise. While physical exercises have merit for testing technological or physical capabilities, their steep cost makes them unsuitable for proving concepts. Even on a smaller scale, it can cost the U.S. Army between \$20 and \$30 million to send a brigade combat team to one of the nation's

three combat training centers, not including routine logistical needs like food and ammunition.⁹ These time-consuming, expensive exercises rarely allow the repetition required for good analysis. By contrast, commercially produced hobby wargames are much less costly. For example, leading hobby wargame publisher GMT Games produces off-the-shelf products that provide limitless opportunity and adaptability for real-world decision-making exercises, with topics ranging from small tactical skirmishes to theater-level large-scale combat operations—and the average cost of their products is \$70 to \$90.¹⁰


Additionally, many hobby wargames run one to eight hours of playtime, offering plenty of opportunity for repeated playthroughs to compare variables, compile after action reviews, and document lessons learned. Since independent third parties develop them, these games also benefit from freedom from bias. In MC '02, JFCOM attempted to prove that the concepts they developed justified the command's existence. Consequently, when the results of the wargame decision making jeopardized the integrity and continuation of the exercise, the white cell allowed institutional bias to affect the game's play, skewing the results.

The Next Generation of Professional Wargamers

The heyday of hobby wargaming in the 1970s contributed to the revival of professional wargaming in the 1980s and 1990s. Since then, demand for professional wargames continues to rise, with the Department of Defense continuously seeking new ways to simulate experimental concepts like multidomain operations in the modern era. Yet, the rising demand for professional wargames has not cultivated a sufficient increase in the number of professional wargamers.

To stay at the forefront of modern conflict simulation, professional wargaming requires experienced gamers capable of identifying complex problems and developing scenarios that showcase them. These gamers must implement both time-tested and innovative mechanisms and technologies to provide decision makers a vehicle to simulate these scenarios.¹¹ While organic wargamers spearheaded the field's resurgence in the 1990s, modern professional military wargaming relies on defense contractors and civilian experts. Aside from not being cost-effective, this inverted wargamer pyramid does not foster the development of institutional knowledge management. The lack of a designated wargaming military occupational specialty or a pipeline to recruit, train, and develop future wargamers compounds this issue.¹² While suggestions for these concepts merit consideration, hobby wargaming provides a short-term stopgap.

Senior game designer Sebastian Bae, a defense wargaming research analyst at the Center for Naval Analyses, details his introduction to professional wargaming: "My career in wargaming began by chance, not by design....I learned to be a



wargamer on the job. With no prior wargaming experience, I was taught to combine my storytelling ability, my knowledge of the military, and my personal experience with commercial board games to develop analytical wargames.”¹³ Bae proposes that continued wargaming competition provides the best method to train future wargamers to analyze human decision making. He argues that competition will teach principles of chance, strategy, and reward while encouraging players to continuously tackle the intellectual challenge provided by a good game. The repetition will eventually enable players to “devise new tactics and strategies, recognize patterns, and employ new concepts.”¹⁴

Bae suggests forums like Tabletopia and Tabletop Simulator on Steam, an online gaming service. However, these forums still require existing games to be manually ported onto the platform. Existing hobby wargames provide the most expedient method for fostering these decision-making competitions across the force to identify, recruit, and train the next generation of professional wargaming talent. Board Game Geek, a popular hobby gaming forum with a database and reviews for over 120,000 games, illustrates the wide availability of commercial wargaming. A search for wargames on the platform returns 23,263 results with subcategories for tactical, operational, and strategic scenarios spanning ancient and medieval, Napoleonic, World War I and II, Vietnam, and modern eras of conflict.¹⁵ Each of these 23,263 games represents unique insights and interpretations of a historical or hypothetical conflict, mechanisms to simulate that conflict, and limitless decision opportunities for players to navigate.

Making Wargames Accessible to the Warfighter

Made a believer by Lieutenant von Reisswitz, General von Muffling saw *Kriegsspiel*’s value to the entire Prussian army. *Kriegsspiel* appealed to Muffling so much that he offered to supplement the number of available copies, claiming anyone with any military experience could and should play the game. In the Prussian *Militär Wochenblatt* no. 402, Muffling recommended the game to the entire army, declaring that “the further distribution and knowledge of the game will earn [von Reisswitz] the thanks of the whole army.”¹⁶ Military commanders from Muffling to Admiral Nimitz have seen the value in wargaming’s ability to shape the military understanding and intellectual development of leaders across operational levels of warfare.

Contemporary professional wargamers worry that only a limited leadership population has access to this intellectual development by virtue of their position or seniority. Like

MC ‘02, most training exercises provide only commanders and staff with the experiential development offered by wargaming. Training provided to other participants is primarily skills-based. Despite this, professional gamers believe wargaming delivers the most value when it is widely accessible, and gamers benefit from iterative play. Sebastian Bae argues, “In a wargame, failure is not final, but merely an opportunity to learn a new method of success. The first time a tactical leader exercises their independent decision-making under stress should not be on the battlefield.”¹⁷ Leaders at all echelons require the opportunity to think creatively under stress and flex their intellectual muscles in a risk-free, limited-cost environment. The hobby wargaming market gives this opportunity to leaders across the operational spectrum.

The variety of commercially available wargames provides limitless scenarios and scales of past, present, future, and fictional conflicts for gamers. Popular titles like *Memoir ‘44*, *Tide of Iron*, or *Bolt Action* use miniatures (miniature figures) on a notional tactical battlefield, using familiar tactical concepts of cover, concealment, and line of sight.¹⁸ This type of game aims to simulate the immediate decisions frontline leaders make in the face of an active enemy or opponent. They scale perfectly to the issues junior officers and noncommissioned officers may face, such as the placement of specific weapon systems or suppressive effects.

Scaling upwards, games such as the *Standard Combat Series* or *World at War ‘85* bring the conflict to the battalion level.¹⁹ These games’ playing pieces act as platoons or companies instead of individual soldiers and teams. This scale allows commanders and staff the opportunity to conduct key steps of the military decision-making process. Notably, these games offer staff officers a chance to gain valuable repetition in mission analysis, intelligence preparation of the operational environment, and course of action development and analysis. These games tend to use realistic orders of battle garnered from historical or modern military units to achieve a historical or potential future military objective. Similarly, division and corps staff members could find GMT’s *The Next War* series of value.²⁰ Using well-researched potential global flashpoints, each installment in this series utilizes battalion- and brigade-sized units to maneuver over vast swaths of territory such as eastern Poland, the Baltics, Korea, or Taiwan.

Even at the level of strategic simulation, there are commercially available wargames that simulate the possible decisions faced by policymakers and strategic planners. GMT’s *COIN* series of games includes scenarios from the British in Malaysia and Palestine to the United States in Afghanistan.²¹ Each of these installments uses two insurgent and two counterinsurgent factions working cooperatively against one another. For example, in *A Distant Plain*, two players control the counterinsurgent factions of coalition forces and the Afghan

government, while another two control insurgent forces acting for local warlords and the Taliban. All players must navigate a realistic labyrinth of conflicting loyalties and shifting alliances. At an even higher level, GMT's *Mr. President* allows players to navigate daily crises in the White House Situation Room as the President of the United States and the White House staff.²² Here, players prioritize time and resources across a variety of conflicts around the world.

Commercially available hobby wargames offer the luxury of iterative play in prepackaged scenarios that allow repetition, enabling players to learn from their mistakes. They also provide scenarios across various tactical, operational, and strategic levels of conflict. This enables players to execute scenarios pertinent to their circumstances regardless of the echelon where their decision-making occurs. Noncommissioned officers and junior officers can move individual Soldiers, squads, and vehicles in a tactical skirmish. Battalion and brigade staff can simulate courses of action with pieces symbolizing platoons, companies, or battalions. Corps staff and higher can simulate the strategic decision making needed for an entire theater of war or national policy development. This addresses the most significant criticism leveraged against modern professional wargaming—it does not provide pertinent scenarios for the relevant unit of action to exercise their decision making. Hobby wargames do exist that can enable units of action at every echelon across all levels of warfare.

Hobby Wargaming in the Professional Realm

Hobby wargaming's utility to professional intellectual development is not a novel concept. While hobby gaming has not yet seen widespread implementation, the idea has gained traction throughout the Department of Defense. For example, in 2019, the Marine Corps War College organized a war-game to simulate the United States' ability to fight a modern conflict across multiple fronts. It used three installments of GMT's *Next War* series: *Next War: Korea*, *Next War: Taiwan*, and *Next War: Poland*. The game pitted three red teams (North Korea, China, and Russia) against three blue teams representing Taiwan, Indo-Pacific Command, and European Command. The blue teams faced the additional challenge of balancing U.S. and coalition forces across three theaters and even appointed a Joint Chief of Staff to prioritize force allocation.²³ The exercise resulted in multiple lessons learned, including the logistical challenges posed by a multi-theater conflict, the fleeting advantages of cyber warfare, and the superiority of enemy fires complexes.

Further down the scale of professional military education, a wargaming club in the Military Intelligence Captains Career Course introduces students to hobby wargaming. The tabletop exercises simulate everything from platoon-level World War II skirmishes to corps-level maneuvers in the American Civil War. They force students to think logistically and prioritize

strategically through a wide array of scenarios. The club's faculty sponsor used a playtest copy of GMT's *Decisive Action* to provide students with repetitions on intelligence preparation of the operational environment. *Decisive Action*, set on potential battlefields in Syria and Poland, requires players to conduct terrain analysis and phased allocation of combat enablers via a battalion-scaled conflict between Russian and NATO forces.²⁴ Functionally forcing players to conduct mission analysis, students drafted and wargamed their red and blue courses of action and intelligence collection plans.²⁵ The game was a valuable tool for the club's sponsor to provide students with a pragmatic, hands-on application of the fundamentals and processes taught in the classroom. Utilizing a wargame in lieu of a pre-built scenario from the schoolhouse enabled students to assess their plans against real, thinking opponents and required them to adapt to changing battlefield circumstances.

Conclusion

Hobby and professional wargaming share a common history in the *Kriegsspiel* of the 19th-century Prussian Army. While the two domains have diverged, a significant overlap still exists, and hobby gaming has much to offer its professional counterpart. Hobby gaming provides a cheaper, isolated alternative for staff members and commanders to exercise their intellectual decision-making capabilities. The sheer volume of available hobby wargames allows units to exercise their staff processes and decision making. It also supports professional gaming as it curates the next generation of professional wargamers. Hobby games can be played repeatedly outside the traditional training cycles at a combat training center. Finally, the variety of wargames available provides realistic scenarios for any decision maker regardless of their position or echelon. Hobby wargaming already exists along the fringes of military education. Its embrace by decision makers would help professional military wargaming fill gaps in understanding, training, and accessibility. ✨

Endnotes

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