

Who's Got Game?

The use of wargames to enhance the learner-centric experience

by LtCol David C. Emmel

In his July 2019 *Commandant's Planning Guidance*, Gen David H. Berger placed special emphasis on increasing the Corps' wargaming capability, noting that it is "essential to charting our course in an era of strategic fluidity and rapid change." "Our problem," he observed, "is not that we are not doing wargaming ... but that we have not effectively harnessed this effort into an integrated process of learning."² In response, the Marine Corps Command and Staff College (CSC) has spent the past academic year integrating competitive wargaming into all aspects of the curriculum.

The changes directed by the Commandant did not require a radical course change because the current curriculum is already designed to create critical thinkers and creative problem solvers in an active learning environment. Students are tested daily by a problem-posing curriculum that requires creativity and collaboration to find solutions to complex and daunting challenges. CSC strives to create the learning environment described in *MCDP 7, Learning*, which

foster[s] flexibility of thought, reasoning, and the creation of potential solutions to problems, and encourages [students] to explore alternative courses of action ... [and] make timely decisions and take action.³

In other words, at CSC students experience a learner-centric approach that increases academic rigor by empowering students to explore the curriculum

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through interacting, debating, and collaborating with peers, and not simply recalling and regurgitating information from reading assignments or a lecture. Students control their own development, guided by the faculty through the use of exploratory discussions, practical applications, case studies, staff rides, exercises, and the increasing use of educational wargames.

For the CSC faculty, educational wargames create exciting opportunities to test solutions to complex ideas in ways that lead to a higher level of understanding, especially through failure. With added emphasis on naval integration and alternative MAGTF employment and force design, the faculty is working to enhance an active learning environment that enables students to achieve a greater understanding of joint operations. Competitive wargames are used to create a more rigorous academic environment to evaluate the students' ability to think, innovate, and decide against a thinking adversary.

In 2020, CSC faculty developed educational wargames to reinforce specific lessons and concepts. In partnership with the Marine Corps Warfighting Lab (MCWL), students were able to contribute to a Service-level wargame

to test specific aspects of the *Expeditionary Advanced Base Operations* concept. This wargame experience met academic requirements for the students while allowing them to contribute to the Service's efforts to identify required future capabilities such as autonomous platforms, precision fires, and effects in the information domain. Although previously wargamed by others, this iteration of the scenarios proved useful in identifying additional gaps in Service capabilities.⁴

Additionally, a history elective entitled "Sea Power in War Thucydides to Thucydides' Trap" utilized an educational wargame to teach full spectrum, multi-domain operations against a future threat. By adapting an operational wargame system developed by MCWL for the General Officer Warfighting Program, the faculty provided a realistic representation of the adversary's operational and tactical forces as well as weapons capabilities to reinforce learning objectives. This wargame event tested the students' ability to apply what they learned throughout the course on naval history and theory against a current, complex, multi-domain warfare problem set in the Pacific.

Most significantly, CSC redesigned its capstone exercise (formerly known as "Nine Innings") beyond a two-week planning exercise to a full-on wargame at the combined joint task force and functional component level. Whereas in previous years students culminated with a PowerPoint brief of their plan, now they must fight their plan against a true peer. By partnering with MCWL and the Marine Staff Training Program, CSC again revamped an existing wargame to present a complex problem set to both challenge student application of operational concepts learned throughout the year and to test their

"Only in opposed, free-play exercises can we practice the art of war."

—MCDP 1



Wargames give participants and observers the opportunity to closely examine and evaluate tactics, techniques, and procedures. (Photo by PFC Samuel Ellis.)

developed course of action. Now this exercise includes a second phase where the student battle staff execute their plan through a dynamic wargame against an adversary force led by a retired general officer and composed of CSC and National Intelligence University students.

This highly qualified expert serves as the commander for the exercise. Having previously offered guidance and mentorship during the planning, now he provides the joint commander's perspective during the "fight," simulating a commander-centric organization. For the first time, students conduct cross-functional staff integration in the form of boards, bureaus, centers, cells, and working groups to execute their plan and focus on supporting the commander's decision cycle under conditions of uncertainty generated by adversary actions. The opportunity to win or lose plays out each day within a time competitive battle driven by intelligence collection efforts, commander decisions, and actions taken across the three event horizons of current operations, future operations, and future plans. This reinforces the concept of operational tempo relative to an adversary.

This year's capstone exercise will also designate a portion of the students to work with the Defense Advanced Research Projects Agency on its PRO-

TEUS digital wargame to test their decision-making skills against a thinking adversary (their fellow students) in a time-constrained environment. In the process, the students will help develop a simulation and gaming tool for use at the company to MEU level. PROTEUS provides the students with a multi-domain combined arms gaming tool with the ability to jointly plan and execute electromagnetic spectrum operations, physical maneuver, and logistics planning and execution. As part of a cross-functional team, students will complete their planning based on a situation that involves a tournament-style competition using unmanned systems and logistical constraints, with the best team being crowned winner.

The use of educational wargames offers a wide range of benefits to enhance the experiential learning of students. As already illustrated, CSC has adopted a liberal definition of wargaming to capitalize on the pedagogical opportunities they present. Much work remains for the next academic year in order to maximize the use of wargames in exercises, "War and Security Studies" courses, as well as game design.

For the way ahead, CSC will expand the use of wargames into its student exercises, increasing not only the number of "reps," but also their complexity. Next

year's capstone exercise scenario will again be redesigned to test the new force design against an adversary depicted in the *National Defense Strategy*. By applying the concepts of *Expeditionary Advanced Base Operations* and *Littoral Operations in a Contested Environment*, the students will increase their understanding of the future operating environment while collaboratively working to address the issues inherent in this problem set.

Building upon the success of "Sea Power in War" from this academic year, War Studies faculty are developing a wargame on naval integration in the age of sail. This effort will highlight what both Napoleon and Jomini failed to address—the important aspect of naval operations during the Napoleonic Wars. After studying the historical background, students will use a wargame to try and rewrite history, but only if they effectively do what Napoleon and his staff did not: integrate naval warfare with land operations. This lesson on the age of sail also stresses the need for a holistic analysis of the instruments of national power and how best to apply them to achieve victory that resonates in today's climate of great power competition. Another option is a history course that uses a wargame to allow students to apply the historical process to a "battle" that they participate in, critically analyzing contradictory first-hand accounts to reveal biases and hidden agendas of the primary sources which link to broader learning objectives in the curriculum throughout the year.⁵

Security Studies will also benefit from the use of wargames to evaluate the applications of theories introduced into the curriculum (e.g., deterrence theory). An educational wargame offers an experiential learning approach, enabling curriculum learning objectives through relevant game scenarios and rule mechanics that demonstrate how theories work in practice. Planning operations in the information environment provide another area where wargaming shows promise in improving student learning. A counter-adversarial narrative wargame will employ teams to develop action plans using media platforms like Twitter or Facebook to target key stake-

holders and then adapt to changes in the information environment based on courses of action taken. Another wargame effort will explore states' use of "lawfare" in the information space to gain advantages while operating below the threshold of armed conflict.

Finally, CSC will offer instruction on wargame design. The intent is to introduce wargame methodologies, as well as the mechanics of how to build a game, while improving their analytical skills. In partnership with Georgetown University, the faculty will introduce wargame design as an additional Gray Scholars (advanced studies) line of inquiry for the fall of 2020.

The educational wargames at CSC provide students with the opportunity to "fail fast," iterate, and learn from multiple tries against their peers and faculty. To build the creative and nimble minds envisioned by the Commandant's

guidance on PME, CSC views intra- and inter-seminar group wargaming as a healthy way to channel and encourage competition, allowing opportunities for students to win and lose, ultimately learning from each outcome. By artfully blending wargames, as well as decision games and case studies into the curriculum, CSC is developing leaders with the intellect and agility to outthink adversaries in this period of rapid change and great power competition. In this way, gaming as a key part of learner-centric education reinforces efforts to increase academic rigor and accountability while developing more lethal warfighters who are also ethical leaders, creative problem solvers, and critical thinkers—in other words, leaders with game who are best equipped to meet the challenges of the future.

Notes

1. The author would like to acknowledge and thank the Command and Staff College faculty who provided input and feedback for this article.
2. Gen David H. Berger, *38th Commandant's Planning Guidance*, (Washington, DC: July 2019).
3. Headquarters Marine Corps, *MCDP 7, Learning*, (Washington, DC: 2020).
4. Conversation with a student who participated in the wargame and author on 11 April 2020.
5. For a detailed discussion of this type of approach, see Judkin Browning, "Of Balloons and History: Using Wargames as Active Learning Tools to Teach the Historical Process," *The History Teacher*, (Urbana–Champaign, IL: Society for History Education, 2009).

