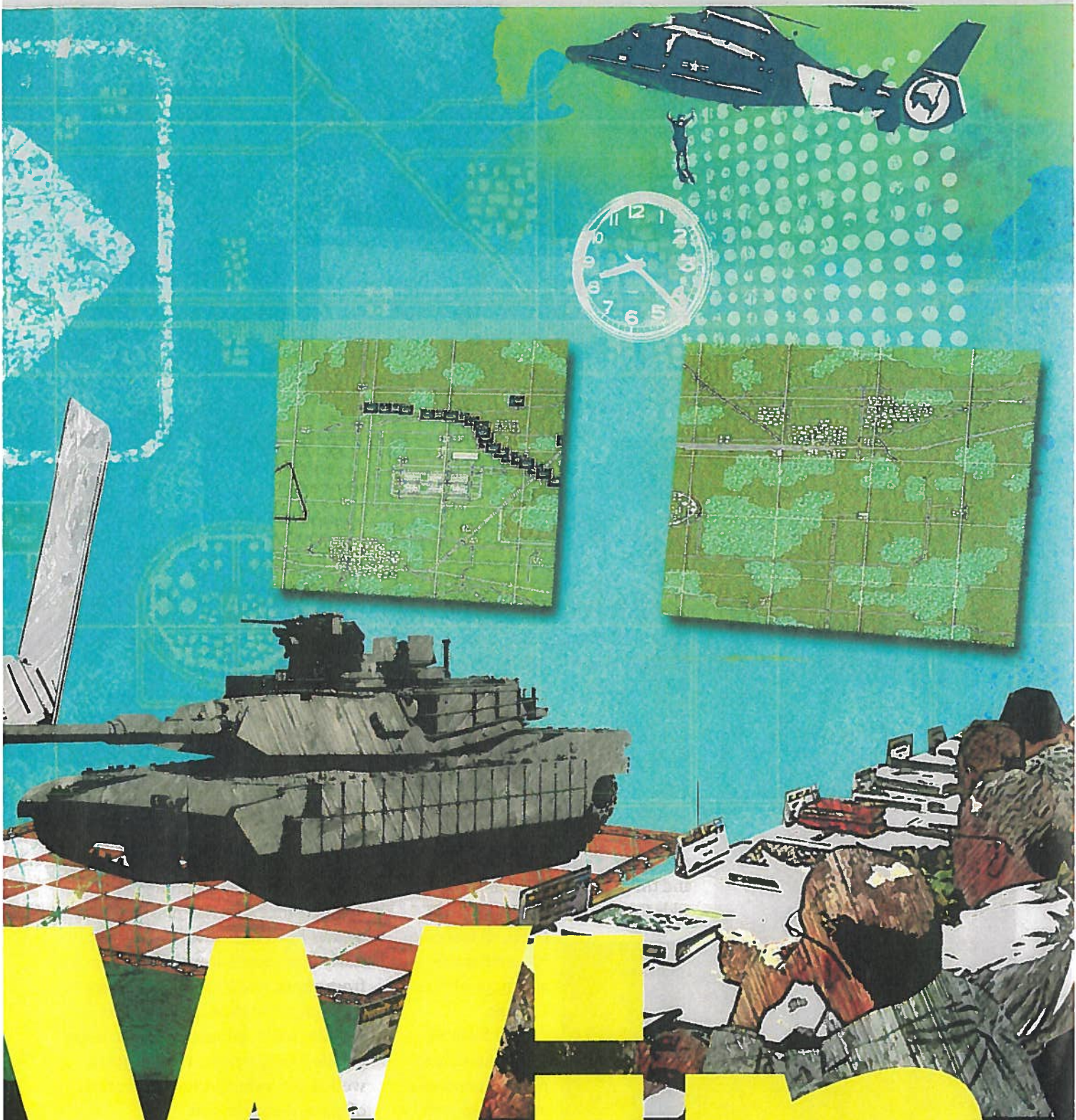


Playing to

Teams of military strategists plan, execute, and analyze elaborate war games to prepare for a wide variety of scenarios.

■ By Willow Nero ■ Illustration by Rafael Ricoy



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FROM THE OUTSIDE, a war game probably looks like

a conference or seminar. Service-members and civilians shuffle papers, pore over maps, work at computers, and debate. It's a far cry from what the term evokes in the imagination: a live-action version of popular games like Battleship or Risk — though these games can have much the same appeal.

Even “war” in this context is misleading; the games reflect the wide

variety of military missions. But particulars aside, the practice is as old as battle itself and is vital to facing the ever-evolving world front.

Developing solutions

“We address the issues keeping the senior commanders, the decision makers, up at night,” says Lt. Cmdr. Heath J. “Hank” Brightman, USN, Ed.D., a professor and director of Applied Research & Analysis at the U.S. Naval War College in Newport, R.I.

Brightman and his colleagues in the War Gaming Department teach advanced decision-making tactics to Navy graduate students and spend a lot of time preparing for and analyzing results of the large-scale Title 10 Navy Global game each year. “We develop solutions with and for leadership by framing and solving problems and through post-game analysis,” adds Cmdr. Michael Martin, USN

(Ret), an associate research professor at the Naval War College.

The focus of these games is to provide commanding officers with either decision-making experience or information, writes Francis J. McHugh in his

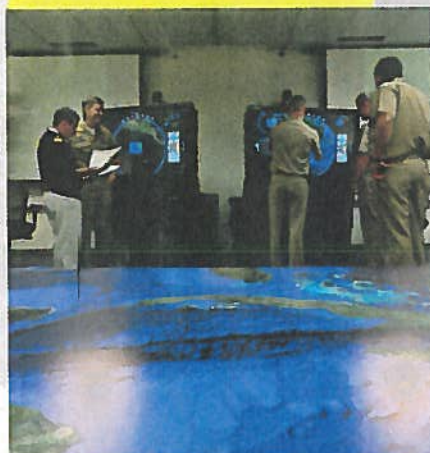
book *The Fundamentals of War Gaming* (Naval War College Press, 1966). Actionable information tends to be in the form of overarching themes (“focus on top-down communication” or “provide more supply-chain training”) versus tactical absolutes (“station 10 units at the border by 1 p.m.”).

“[Participants] are confronted with a plausible future world as a framework for shaping that thinking,” says Gen. William L. Shelton, USAF, commander of the Air Force Space Command. “This format enables a wide variety of conversations about ‘the way things will be.’” Players also are encouraged to draw from their prior experience. “That makes it more interesting,” Brightman says. “It’s all about human decision-making.”

Learning through play

“People have been planning and gaming since generals had to take armies far away,” notes Brightman. Early war games drew inspiration from chess, and 19th-century *kriegspiel*, incorporating dice rolls, were popular with civilians. Because these games were discrete, they adapted well to the unfortunate application of game theory to war.

During the Vietnam War, Secretary of Defense Robert McNamara notably relied heavily on quantitative modeling tools (used by his “Whiz Kids,” experts from RAND Corp.) to solve complicated real-world problems with qualitative elements. The result: a war the U.S. was winning on paper but losing by most other means. “We couldn’t explain why we



American and Japanese forces plan together in Integrated Air and Missile Defense Wargame V in February. The online 2013 Inter-American War Game (top) included naval officers from the U.S., Brazil, and Colombia.

Test-Run a War Game

While “war gamers” in the services might laugh at the comparison between something like *Dungeons & Dragons* or *Risk* and real-world Title 10 games, the similarities are multifold. After all, pleasure and competition are major motivators in any game. To get a taste of a modern military war game — without imagining away the orcs or centuries-outdated equipment yourself — try a video game-style war game used in the field and made available to civilians.

■ “TacOps4” is the latest commercial version of the TacOps series of simulation video games, several iterations of which have been licensed to the Army and Marine Corps. It is a simulation of contemporary and near-future tactical ground combat between U.S., Canadian, New Zealand/Australian, and German forces versus various opposing forces, simulating the former Soviet Union, China, North Korea, etcetera. Various civilian units and paramilitary forces also are included. Download it at www.battlefront.com/products/tacops4/tacops4.html.

■ While the multiplayer, round-based tactical shooting game “America’s Army” originally was produced as an Army recruitment tool, it has been adapted for training purposes, too. Play it at <http://store.steampowered.com/app/203290>.

■ The science fiction horror-themed first-person shooter game “Doom,” originally released in 1993, has been recognized by various civilian reviewers as one of the most significant video games of all time. Borrowing from the game’s popularity, the Marine Corps created a modified version in which a fireteam of four players collaborates on a specific mission. Download this special version of “Doom” at www.doomworld.com/idgames/?file=themes/marines/marine1.zip.

■ The MMOWGLI (Massive Multiplayer Online War Game Leveraging the Internet) is an online game that started as a way for the Navy to crowdsource ideas from servicemembers. Now it’s open to the public, so veterans and civilians alike can play the game, which includes feedback sessions for players to provide suggestions to enhance gameplay — and potentially improve all kinds of Navy practices. Get involved at <https://portal.mmowgli.nps.edu/welcome>.

■ In 2013, the Air Force announced it had certified the Unreal Engine 3 Web Player for use on Air Force computers. While no games have been announced or released to the public, it’s likely the service is developing software or modified games for use on the mass-market platform. Some of the best civilian examples of the engine at work include “Unreal Tournament” (and its offshoots), “Infinity Blade,” and “Dungeon Defenders.” These games are available at video game retailers.



“TacOps4”



“America’s Army”

were losing when the models said [the enemy troops] in a certain area had been killed twice,” says Lt. Col. Jon Scott Logel, USA (Ret), Ph.D., an assistant research professor at the Naval War College.

War games can be developed to address a specific training goal, answer an operational question, or produce group cohesion; this shouldn’t be conflated with seeking quantitative results to a qualitative question.

These games focus on opinions, beliefs, and values and look at future operations for which there are no existing plans or for which capabilities are undeveloped or immature, notes Shelton. Game developers aim to have players expand their thinking or strategically consider the cultural norms of a living, breathing adversary. This makes outcomes highly unpredictable, depending on the individual players. But the results

are teachable. “It puts people in a different mind-set,” says Brightman. “It can potentially provide insights into a senior officer’s role [while the player is still] a junior officer.”

Defining the game

There are three basic types of war game: *Analytic games* focus on complex problems to develop new concepts and areas for inquiry; *educational games* teach strategic

planning; and *experiential games* immerse players in real-world tasks for training purposes.

Some educational or test games include significant discussion or pattern and observation analysis before a game concept (scenario and rules) is finalized. Another variety of game, the alternative futures, asks players to predict various approaching outcomes based on limited information.

Games can be single-sided, two-sided, or multisided, providing different levels of competition and direction from the control group. Style and content also vary. Participants can be limited to a small group or include partner nations. Games might be played online, with a map and game pieces, or with none of the above. Usually a control group or director leads live games; direction is improvised for some and static for others.

Title 10 series

The largest games fulfill DoD's requirement, under Title 10 of the U.S. Code, that services study the strategic security environment and organize, train, and equip to meet coming changes and challenges. Title 10 games include input across the services and see participation of the country's top brass. As of 2003, these games focus on a joint forces concept rather than a particular service's strengths.

The 2013 installment of Unified Quest, the Army's Title 10 game, centered on the fall of a criminal family-run nuclear state, "North Brownland." During gameplay, leaders struggled to get 90,000 troops into the nation and ultimately agreed some U.S. operational skills have "atrophied" as a result of recent staging in Kuwait. Of course, these identified weaknesses soon will become strengths.

The Air Force hosts Unified Engagement and Futures Game in alternate years as well as a third, the Schriever War Game, that explores space and cyber issues. Schriever's



A soldier plays battalion commander in the Army's Irregular Warfare Tactical War Game. (top) The game team and chair of the Naval War College War Gaming Department prepare for the 2012 Rehearsal of Concept Drill.

"participants are wrestling with a confrontation that has not yet happened," says Shelton. "Our senior advisors are constantly reminding the participants that this is a pioneering effort similar to the Navy's work between World War I and World War II ... credited by Adm. [Chester] Nimitz as providing him the critical insights that led to success against Japan in the Pacific."

The Expeditionary Warrior game, run out of the Marine Corps Warfighting Laboratory, is in its second year of examining operational challenges for a distributed joint force engagement in Southeast Asia. The scenario involves a power struggle in "Karta" between a U.S. ally and his anti-American brother. The real issues: freedom of navigation, de-escalation via cyber tactics, kinetic fires, and more.

Navy Global, last conducted in September 2013, explored various command-and-control structures

necessitated by the air-sea battle concept developed to address asymmetrical threats in the Western Pacific and the Persian Gulf.

The Joint Staff's Iron Crucible game looks at issues that span the joint force, without duplicating the efforts of the Title 10 games. Game scenarios are global in nature and engage multiple commands with operations in all domains. For the 2014 game, command-and-control flexibility is a major theme.

The Special Operations Command also takes a joint look at service capabilities and issues affecting its mission. Its recent Afghan Wargame series focused on scenarios in the very near future. **MO**

— Willow Nero, an associate editor at Military Officer, compiles the Rapid Fire department, among other duties. Her last feature article for the magazine was "A Rich Heritage," August 2013.