

Seeing Red: Creating a Red-Team Capability for the Blue Force

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*This is not exactly the enemy we
wargamed against.*

—LTG William S. Wallace, Commander of
V Corps during Operation Iraqi Freedom¹

LIEUTENANT GENERAL William S. Wallace had considered the adaptive nature of the enemy, but apparently he had not expected the intensity of the insurgency that followed decisive operations in Iraq. The Army and its sister services and coalition partners discovered that, contrary to assumptions, defeating Saddam Hussein's forces and seizing Baghdad did not produce a decisive victory. Why? Perhaps U.S. planners did not correctly identify the centers of gravity in Iraq. Saddam, his regime, and his capital city, Baghdad, were assumed to be centers of gravity during various stages of contingency planning but, in hindsight, none of them were. While it is too early to say why toppling Saddam and seizing Baghdad did not produce the expected victory, one could argue that U.S. planning efforts attributed perspectives, motivations, and options to the Iraqis that they did not have. Is it possible the unexpected outcome was a result of these assumptions? Did we mistakenly assume Iraqis would view the world through lenses similar to our own?

The complexity of today's operational environment (OE) requires Army leaders to see through multiple lenses. Ambiguous, nontraditional adversaries seek new means to destroy, disrupt, or just outwait us. Events in Operation Iraqi Freedom and in Afghanistan have unmistakably confirmed the OE's dynamic nature. Every day our adversaries rapidly adapt, requiring us to reassess how

they think about themselves, their environment, and us.

In addition to continuous reappraisal of the operational environment, the Army should examine its processes, structures, and practices. Because adversaries adapt to invalidate our techniques, we must guard against core competencies becoming core rigidities. For example, a previously successful enemy course-of-action template might prove inappropriate for a dynamic adversary or for one we do not understand well. Templates remain useful, but we must acknowledge their limitations.

Our forces require the organic capacity to adapt quickly to new, unanticipated requirements. Lessons from contemporary operations, trends, and estimates of the future suggest we must improve our decisionmaking and planning and the execution of our operations. Operation Iraqi Freedom and Army chief of staff focus area experiences identify deficiencies in the way we learn, understand, and adapt. With this in mind, the Army is examining how to understand, anticipate, and manage change. In addition to learning how to do things better, we must learn to ask: What is the next right thing to do?

Red teaming, a structured and iterative process executed by trained, educated, and practiced team members with access to relevant subject matter expertise, is uniquely suited to this kind of critical analysis. Red teaming provides the commander with an independent capability to continuously challenge OE concepts, plans, and operations from partner and adversary perspectives.

Red teaming is neither new nor unique. In one form or another, it has been successfully applied throughout history. Both government and industry

use red teaming, but the Army has no doctrine, procedures, or methodologies for red teaming, and no formal education or training structures are available to institutionalize the capability. When the Army does conduct red teaming, it does so in an ad hoc manner.

Army red teaming emphasizes technical issues and vulnerability analysis, focusing on capabilities rather than the enemy's potential use of those capabilities. Red teaming Army concepts and plans from the perspective of adversaries and coalition partners will help soldiers in the field anticipate and manage change. Effective red teams provide full-spectrum iterative operations and OE analysis from perspectives that can help identify vulnerabilities and develop mitigating strategies. Because red teams challenge assumptions and offer alternative viewpoints, they can ensure a focus on desired end states, produce a more closely synchronized staff, and drive more complete analyses.

The red-team approach provides an understanding of the adversary through his cultural lens. (See figure.) Why does culture matter so much? Culture is an integrated system of socially acquired values, beliefs, and rules of conduct that limit the range of accepted behaviors in a society. Cultural differences distinguish societies from each another. According to military affairs analyst Williamson Murray, writing for the Defense Adaptive Red Team, red teaming "provide[s] a means to build intellectual constructs that replicate how the enemy thinks [because the constructs] rest on a deep intellectual understanding of his culture, [the] ideological

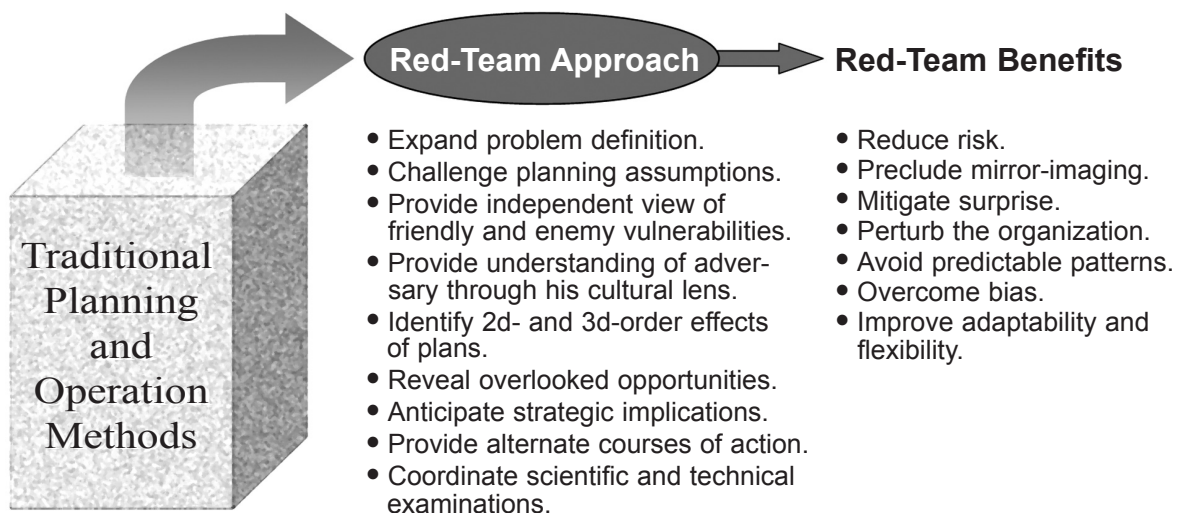
(or religious) framework through which he interprets the world (including the battlefield) and his possible and potential strategic and operational moves. Such red teaming is of considerable importance in estimating the nature of the future battlefield. But it might be even more important in providing military leaders and staff officers a wider and deeper understanding of how the enemy will fight."²

Historical Red-Team Efforts

Red teaming, in the sense of wargaming or an interaction in which at least one player portrays the enemy, began when the 19th-century German military developed the *kriegspiel* (wargame) to train its officers. A rules-based map simulation, *kriegspiel* afforded the General Staff the opportunity to train, test concepts and plans, and evaluate leadership. In 1879, U.S. Army Captain W.R. Livermore, published a set of rules for wargaming called *The American Kriegspiel*.³

Later, several countries explored a variety of red-teaming methods, focusing on understanding enemy actions. The Germans studied 500 officers to evaluate their experiences during World War I. The British convened a study board in 1932 to evaluate lessons from World War I, but its limited scope made it far less effective than the German study. The French conducted wargames to validate their army's approved doctrine and to make the troops feel good about the training they received. After conducting naval wargames, the United States incorporated its findings into its plans for future conflicts.

Red-Team Capabilities and Benefits



The United States successfully used red teaming during World War II. The Allied preinvasion deception operation against the Germans in June 1944 succeeded because of effective analysis of German intention and because the United States wargamed the deception plan to develop countermeasures for German attempts to penetrate the deception.⁴

During the second half of the 20th century, the Army renewed its interest in red teaming, although some would say half-heartedly so. According to Murray, in 1996 the Army scripted red-team exercises in such a way that they blindly validated existing concepts of operation. The U.S. Navy (USN) and U.S. Air Force (USAF) continued to employ red teams primarily to challenge technical aspects of programs (for example, the USN nuclear-powered ballistic missile submarine security program and the USAF missile defense system countermeasures program).

With the onset of the Global War on Terrorism and the advent of defense Transformation, the services thoroughly reexamined previously successful methodologies and sought innovative, adaptive methods. Currently, every branch of service, the U.S. Joint Forces Command, and the Office of the Secretary of Defense use red teams in some form, but the teams lack defined doctrine or shared tactics, techniques, and procedures (TTP).

According to a 2003 Defense Science Board

(DSB) study on red teaming, the Army has pioneered a comprehensive red-team approach and decided how to maximize their red teams' potential. The U.S. Army Training and Doctrine Command (TRADOC) Deputy Chief of Staff for Intelligence "Red Franchise," which leads this effort, has produced an operational environment to support concept development and experimentation and to train opposing forces. The Red Franchise also includes the World Class Red Team and Devil's Advocate capabilities, which provide emulative critical analysis, wargaming, and continuous review of emerging concepts.

Department of Defense, U.S. Government, and industry studies all indicate that the Army is ready for a substantial change in the way it plans and analyzes concepts, systems, and operations. The DSB study, which highlights the long-term value of red teaming to reduce an enterprise's risks and increase its opportunities, concludes: "We believe red teaming is especially important now. Aggressive red teams challenge emerging operational concepts in order to discover weaknesses before real adversaries do. Red teaming also tempers the complacency that often follows success."⁵

While recognizing the various service red-team initiatives, the Defense Science Board could not find a commonly agreed-on description of red-team capabilities and functions or a means to assure

Red-Team Best Practices

The Defense Science Board and others suggest certain attributes, challenges, goals, or outcomes for successful red teaming. The following list describes accepted organizational and methodological red-team best practices:

- Political and military cultures must embrace red teaming.
- Embracing criticism is foremost among the internal cultural challenges.
- Political and military organizations must prize intellectual assessments and value intellectual preparation as seriously as physical preparation.
- All services must institutionalize red teaming by way of a doctrinal foundation and organizational support and structure.
- Leaders must provide the top cover to protect and mentor red teamers, charter the red team and the organization to solve problems, and encourage robust interaction between red and blue (in which blue learns).
- Leaders must balance red-team independent action with accountability to the command.
- Red teaming must be employed throughout the decisionmaking process but with calculated application—not too heavy, not too light—so promising ideas can thrive without prejudging.
- Red teams must be chartered to continue to learn and adapt.
- Red-team members must be highly qualified experts in their fields and have sound reputations and even temperaments.
- Individuals and teams must be educated, trained, and certified in the context of doctrine on a recurring basis.
- The red-team member presenting the opposing or alternate view must be credible, perceptive, and articulate.
- Red-team members must be intellectually honest with a heavy dose of ego suppressant.

quality of effort. With only shallow reference to wargaming, U.S. Army Field Manual 5-0, *Army Planning and Orders Production*, is reminiscent of earlier Cold War versions of FM 101-5, *Staff Organization and Operations*.⁶ The doctrine does not fully account for OE variables or provide guidance on how to wargame against an adaptive enemy.

According to Field Manual 5-0, the executive officer or chief of staff coordinates staff actions as the unbiased controller of the process, but his responsibility is primarily to ensure the “staff stays on a time line, and accomplishes the goal.”⁷ The chief of staff or executive officer often does not have the time and expertise to account for OE variables or ensure the enemy is appropriately portrayed.

A Red-Team Solution

How does the commander define the problem, ensure assumptions are valid, consider the enemy’s perspective, and avoid common planning pitfalls such as mirror-imaging and groupthink? The Army solution is to develop a university.

The University of Foreign Military and Cultural Studies (UFMCS) at Fort Leavenworth, Kansas, will enable an Armywide red-team capability. The UFMCS is developing a curriculum to provide education, training, and practical experience for red-team leaders and members. The goal is to teach students to think beyond blue-team planning systems and to more fully consider non-Western cultures, motives, and ideas.

In partnership with TRADOC and others, the UFMCS will develop curricula to produce Army and joint red-team expertise. Partnerships with joint forces, Army, and other government agencies will be essential to—

- Developing, sustaining, and growing the competency to anticipate OE changes.
- Enabling rapid organization of red teams to meet specific challenges.
- Using research resources more effectively.
- Achieving a synergy of faculty, team members, and the force.

The UFMCS is pursuing joint, interagency support to examine the red-team concept and the UFMCS curriculum. The experiment involves selecting red-team leaders and a cadre of experts to support them. After completing their education, the officers will go to organizations to perform red-team tasks. Assessment teams will evaluate each red team and provide necessary feedback for red-

team doctrine, the UFMCS curriculum, and TTP.

The UFMCS will conduct a pilot program consisting of two 18-week courses for red-team leaders. The courses will employ seminar techniques, case-study methods, and scenarios that demand analysis from unfamiliar perspectives to produce red-team members who can think creatively and communicate what they think effectively. Study topics being considered are—

- Understanding the operational environment and its critical variables.
- Cultural apperception and the influence of semiotics. (The study of signs and the cultural meaning of symbols.)
- Red-team and Devil’s Advocate principles.
- Global competition.
- Regional studies.
- Understanding Western and non-Western military thought.
- Critical and creative thinking.

The UFMCS will establish or build on existing relationships with civilian universities and consult with other institutions on red-team best practices, focusing on—

- The military decisionmaking process and red teaming.
- Foreign military capabilities and developments.
- Wargaming and experimentation best practices.
- Techniques of critical analysis.
- Urban operations.
- Principles of cross-walking orders, concepts, and experiments.

During the operational-experience phase, students will function as red-team members and

Red-Team Failure

The red team fails because it—

- Does not take its assignment seriously.
- Could lose its independence and be “captured” by the bureaucracy.
- Could be too removed from the decision-making process and become marginalized.
- Could have inadequate interaction with blue teams and be viewed as just another sideline critic.
- Could destroy the integrity of the process and lose the confidence of decisionmakers by “leaking” its findings to outsiders.

Office of the Undersecretary of Defense for Acquisition, Technology, and Logistics, *Defense Science Board Task Force on the Role and Status of DOD Red-Teaming Activities* (Washington, DC: U.S. Government Printing Office, September 2003).

participate in an experimental transformation wargame (such as Unified Quest) or a Combat Training Center rotation. Formal assessments will provide feedback to UFMCS and Army leaders on red-team value-added and curriculum validity.

While instruction is critical, the UFMCS's functions are much broader in scope. The University envisions providing an educational foundation for the red-team community, periodic training for standing red teams, and a world-class red-team reachback and research service to Army and joint forces.

Red Teams in Action

After completing the UFMCS program, red teams will—

- Serve at all echelons.
- Work directly for the commander.
- Be independent of the primary staff and maintain an intellectual distance from the staff to detect patterns, weaknesses, and disconnects.

Red teams must be accountable to commanders and viewed as part of the force. Maintaining this balance is critical and must be cultivated wherever red teams are to operate effectively. Red teams will perform the following functions:

- Participate in planning and operations by determining how clearly blue-team planners understand their orders, tasks, and instructions.
 - Pinpoint key blue-team decision points.
 - Challenge planning assumptions.
 - Participate in staff functional boards (targeting boards).
- Enable the blue team to understand and consider the perspectives of partners and other inter-

ested parties to complex operations.

- Ensure the adversary is portrayed correctly and fights realistically during wargaming.

To support concept development, experimentation, and future force design, red-team members might be assigned to Army Battle Labs and the U.S. Army Futures Center. Red teams at TRADOC schools and centers could provide a similar capability for commanders.

Little shared knowledge is available to guide red-team practitioners. Inherent in the UFMCS mission is the requirement to gather lessons learned from red-team experiences to develop a knowledge base, provide a repository for research, and create a forum for sharing research results. UFMCS planners are also examining ways to provide input to Army doctrinal literature and are considering publishing a “best practices” handbook. (See page 6.)

Murray believes “where red teams existed in active and vigorous forms, military organizations have almost invariably out-performed their opponents on the battlefield.”⁸ U.S. Armed Forces at all echelons and in all organizations can apply red-team capabilities to mitigate uncertainty, facilitate change, increase tempo, and improve decisions, plans, operations, organizations, and activities.

Intellectual and culturally smart, red teams will add value to concept development, experimentation, wargaming, orders, and plans. The Army's investment in red-team education and training structures is small given the potential outcomes and value added. As Giulio Douhet noted, “Victory smiles upon those who anticipate the changes in the character of war, not upon those who wait to adapt themselves after the changes occur.”⁹ **MR**

NOTES

1. LTG William S. Wallace. According to U.S. Air Force COL Matthew B. Caffrey, Jr., “General Wallace was originally quoted as saying, ‘This is not the enemy we wargamed against.’ He quickly stated he had been misquoted and had actually said, ‘This is not exactly the enemy we wargamed against.’” See “Red Flag for Joint Campaigns: Building a More Effective Air and Joint Force through Better Operation and Strategic Wargaming,” *Air & Space Power Chronicles Online Journal*, 21 April 2004, at <www.airpower.maxwell.af.mil/airchronicles/cc/Caffrey1.html>, accessed 25 July 2005.

2. Williamson Murray, *Red Teaming: Its Contributions to Past Military Effectiveness* (McClean, VA: Hicks and Associates, September 2002), 58.

3. Peter P. Perla, *The Art of Wargaming: A Guide for Professionals and Hobbyists* (Annapolis, MD: UNSI Press, 1990).

4. Department of Homeland Security, Science and Technology Directorate, Threat and Vulnerability Testing and Assessment Portfolio, *Staying One Step Ahead: Advancing Red Teaming Methodologies through Innovation*, 8 February 2005.

5. Office of the Undersecretary of Defense for Acquisition, Technology, and Logistics, *Report of the Defense Science Board Task Force on The Role and Status of DOD Red Teaming Activities* (Washington, DC: September 2003), 2, on-line at <www.acq.osd.mil/dsb/reports/redteam.pdf>, accessed 25 July 2005.

6. U.S. Department of the Army Field Manual (FM) 5-0, Final Approved Draft, *Military Decision Making Process* (Washington, DC: U.S. Government Printing Office [GPO], 30 October 2004), subsequently titled FM 5-0, *Army Planning and Orders Production* (Washington, DC: GPO, January 2005); and FM 101-5, *Staff Organization and Operations* (Washington, DC: GPO, various dates).

7. FM 5-0.

8. Murray, *Thoughts on Red Teaming* (McClean, VA: Hicks and Associates, May 2003), 2.

9. Giulio Douhet, *The Command of the Air*, trans., Dino Ferrari (New York: Coward-McCann, 1921, reprint 1942).

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