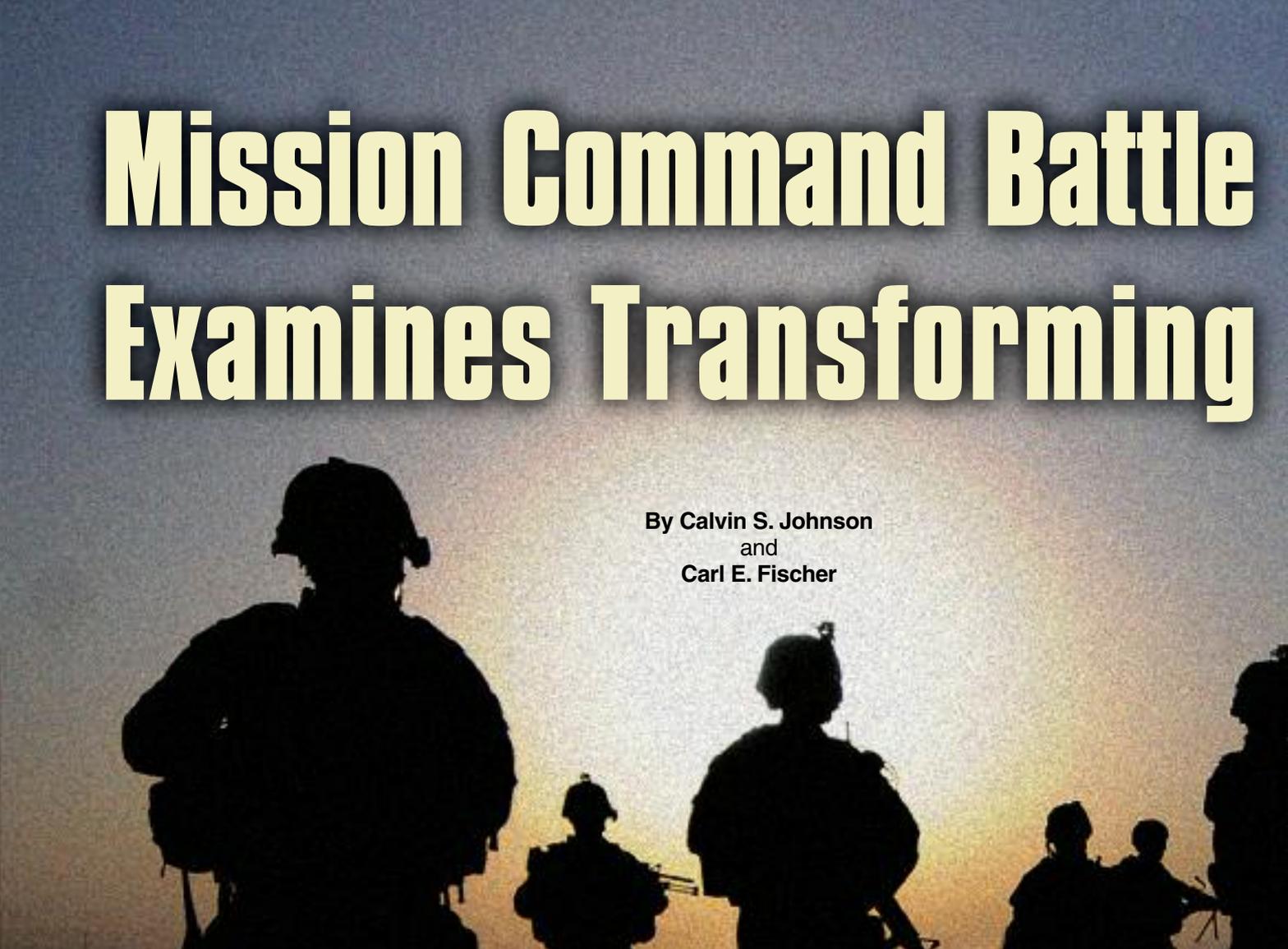


Mission Command Battle Examines Transforming

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Wanted: A modernized, expeditionary land force that can prevent conflict through influence, deterrence and credibility; shape the operational environment through enduring relationships with other armies; and win the nation's wars with trained, equipped and ready forces.

The Chief of Staff of the Army (CSA) has directed the U.S. Army Training and Doc-

trine Command (TRADOC) to lead efforts to redesign the Army of 2020 as part of a larger effort to support changes in defense strategy. TRADOC will deliver the capabilities required to support the joint force and posture the Army to succeed in an era of constrained resources.

The Army Capabilities Integration Center (ARCIC) leads TRADOC's transformation efforts by developing concepts, technologies and formations that generate a lighter, more

Lab the Force



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lethal, strategically responsive Army. Organizations throughout TRADOC are focusing on creating a land force capable of preventing conflict, shaping the environment and winning our nation's wars.

As the responsible agent for the requirements development associated with the modular and future corps, division, and mission command, the Combined Arms Center (CAC) has charged the Mission Command Battle Lab (MCBL) to lead and support the

ARCIC experimentation plan. The MCBL informs decisions and mitigates risk to current and future Army forces by examining and evaluating emerging concepts and technologies through experimentation, studies and prototyping, while informing the combat development and acquisition processes.

The MCBL, with the Army experimentation community of practice, uses the subject-matter expertise of diverse partners and conducts objective analysis in multiple forums to examine Army 2020 concepts and evaluate mission command-related technology prototypes. Through this rigorous analysis, tailored partnering and developing new technology, joint and Army experimentation refines concepts and provides critical analysis for development of doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) solutions for the force.

Essential Expertise

As it examines Army 2020 concepts and technologies, MCBL benefits from additional expertise originating outside TRADOC. These broad and diverse perspectives, fully framing the problems and providing and capturing holistic solutions, include:

- U.S. Department of State
- U.S. Transportation Command
- The Army Airborne Community
- The Peacekeeping and Stability Operations Institute
- The Joint Center for International Security Force Assistance
- U.S. Army Cyber Command
- Third U.S. Army
- U.S. Army Africa
- CAC's Combined Arms Doctrine Directorate
- U.S. Army TRADOC Analysis Center
- TRADOC Centers of Excellence
- U.S. Army Space and Missile Defense Command
- U.S. Navy
- U.S. Air Force
- U.S. Marine Corps
- The Army Special Operations Capabilities Integration Center.

This year, MCBL-led experimentation is focusing on Army 2020 initiatives set in a gain-and-maintain operational access (GAMOA) scenario as the Army seeks to design the land force envisioned by the CSA. Concepts and organizations being investigated include collapsing an echelon of command above division; developing the ability to rapidly establish and employ an Army-based joint task force for contingencies; regionally aligning corps, divisions and brigades; establishing engagement and advisory organizations and capabilities; proposing a reconnaissance and surveillance brigade; creating interdependence of special operations and conventional forces, and of Army and joint forces; and crafting new protection and medical organizations.

As TRADOC's integrative and mission command war-fighting function battle lab, MCBL incorporates into experimentation concepts associated with the operations process, cyber and electromagnetic activities, inform-and-influence activities, and knowledge management. While research on many of these issues continues, experiments are providing

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objective, empirical data to decision makers to supplement input from their own experiences and other venues—for example, general officer operational assessment workshops and brigade commanders' conferences.

The MCBL recently hosted a GAMOA simulations-driven experiment and war game to examine these issues. The scenario required participants to gain and maintain access in an anti-access and area-denial environment, conduct joint forcible entry operations, and assess the land force's ability to develop combat power rapidly and attain operational objectives.

MCBL began this examination of gaining and maintaining access as a contributor to the development of the Joint Operational Access Concept and has continued by informing the recent Army-Marine Corps concept, Gaining and Maintaining Access. By collaborating continuously with the Joint Staff

J-7, MCBL expects to influence the future Joint Concept for Entry Operations as well. In addition to these conceptual investigations, the MCBL examines mature technologies targeted at improving the art and science of mission command.

These examinations inform decisions that drive other decisions, particularly those regarding structure, headquarters design and mission command technologies. Focused events within the experimentation program provide research and insights that identify feasible, transformative DOTMLPF solutions.

Recent MCBL experiments provide ample evidence of the Army's return on its investment.

In 2010, the MCBL hosted Talon Strike/ Omni Fusion (TS/OF) 10, an interoperability demonstration conducted with British forces preparing for deployment to Afghanistan. Army experimentation routinely includes multinational perspectives and participants to identify Army interoperability requirements and learn from unified partners. Among the results of TS/OF were the validation of several multinational mission readiness training exercise objectives and improvements to the universal chat bridge enabling integration of chat streams in multiple formats. In addition, last year's Allied Auroras, which included the participation of Australia, New Zealand, the United Kingdom, Canada, and the U.S. Army and U.S. Marine Corps, improved simulation interoperability among all participants. These events demonstrated and then validated a multinational, virtual training capability that improved readiness and reduced risk before deployment to a combat theater, while saving significant resources compared to geographically colocated training.





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Informed choices that improve technologies, mitigate risk and save resources are all results of Army experiments that incorporate noted experts from the Army Research, Development and Engineering Command, Defense Advanced Research Projects Agency, Joint Staff J-7, academia, the National Laboratories, industry, the Army acquisition community, the U.S. Army War College, the Command and General Staff College, and other organizations and allies around the world. Through this extensive and diverse partnering, the MCBL’s experimentation becomes more reliable and valid, better informed and widely applicable.

Partnering is critical to MCBL’s science and technology mission, in which the lab examines emerging mission command-related technologies. Other recent efforts have informed materiel development in the science and technology and Assistant Secretary of the Army (Acquisition, Logistics and Technology) programs.

In the past three years, science and technology experimentation has examined automated running estimate software, multitouch technologies and an automated cognitive assistant (the Personalized Assistant that Learns, PAL). Most recently, the lab conducted a demonstration of automated decision-making technologies to gather feedback on its value to leaders and applicability across warfighting functions. Insights gleaned from these assessments shorten acquisition timelines and get capabilities to soldiers faster. In addition, experiments cull less promising technologies from further consideration, focusing scarce resources on those with the most value to the Army.

As a drawdown looms, the Army faces tough choices in a fiscally constrained environment. The importance of Army experimentation has never been greater. Experimentation in the MCBL has mitigated risks with rigorous, objective examination of concepts, organizations and technologies, and it has provided Army leaders with data to make informed decisions important to the future successes of our Army. Experimentation has integrated operational units and a diverse community of practice and provided valid results with broad application. It has paired issues effectively with subject-matter experts from the generating and operating forces, academia, industry, and interagency and multinational partners. Recent experimentation has used the historically high combat experience currently in the force and applied it to future concepts and organizations.

MCBL’s experimentation has provided a measurable return on investment across the DOTMLPF in enlightened and improved technology choices; greater interoperability; better-informed decisions; effective doctrine, tactics, techniques and procedures; and, ultimately, improved operations in complex operational environments. Experimentation is a cost-effective and valuable tool in the continued transformation of our armed forces.

As TRADOC wrestles with how to create the land force that the CSA has challenged the Army to develop in the coming years, MCBL—in close coordination with its extended community of practice—will continue to provide objective, measurable insights and findings to assist Army leaders to make better-informed decisions on the way ahead. ★