

# Creating Powerful Minds

## Army University Education Initiatives for Large-Scale Combat Operations

Col. Thomas Bolen, U.S. Army

Vince Carlisle, PhD

In the not-too-distant past, large-scale ground combat operations against near-peer adversaries seemed unlikely and less dangerous than the immediate threats posed by al-Qaida, Iraqi insurgents, and the Taliban. However, Russian ground campaigns against the Republic of Georgia and Ukraine plus threats to former Soviet republics destabilized eastern Europe

and provoked NATO partners. Meanwhile, the dramatic growth of China's economy enabled the unprecedented development of Chinese military power across all domains and emboldened aggressive expansion into the South China Sea. And, in addition to these events, tensions with North Korea and Iran continue. These conditions required a comprehensive assessment of the Army's



training and readiness, and the development of materiel and doctrine to maintain the capability to deter and defeat potential adversaries in a conventional setting.<sup>1</sup>

Today's strategic environment presents the U.S. Army with a fresh dilemma: the requirement to continue prosecuting campaigns against terrorists while also preparing for threats from near-peer adversaries that could diminish the United States' leading role in the global community. Additionally, the Army also faces challenges preparing for operations in a rapidly changing operational environment characterized by expanding populations in unstable, strategic locations in the world, rising social expectations enabled by advances in communications and transportation technology, and increasing competition for the availability of scarce natural resources.

Against this necessity to increase soldier and leader proficiency in conducting multi-domain, large-scale combat operations (LSCO) is the specter of outdated professional military education (PME). In January 2018, Secretary of Defense James Mattis stated in the "National Defense Strategy,"

PME has stagnated, focused more on the accomplishment of mandatory credit at the expense of lethality and ingenuity. We will emphasize intellectual leadership and military professionalism in the art and science of warfighting, deepening our knowledge of history while embracing new technology and techniques to counter competitors.<sup>2</sup>

Due to the extreme complexity of the operational environment our soldiers and leaders now face, efficiency in the use of time and resources to develop understanding and cognitive capabilities through PME cannot be overstated. Army leaders must commit to a cultural change in the way education is delivered as the legacy system is retooled to make it more effective, especially with regard to waging and winning large-scale conventional conflicts to achieve definable victory.

**Previous page:** 1st Lt. Daniel Butensky, an engineer officer assigned to 299th Brigade Engineer Battalion, 1st Stryker Brigade Combat Team, 4th Infantry Division, cuts through metal with a Broco torch in subfreezing temperatures 6 December 2017 during the Best Sapper Competition, Fort Carson, Colorado. Skills like this can lead to civilian degrees and certifications through Army University continuing education degree programs. (Photo by Sgt. Micah Merrill, U.S. Army)

## Army University Established

In February 2015, the commanding general of the Combined Arms Center initiated the Army effort to promote cultural and structural changes outlining the establishment of the Army University (AU). The problem statement in "The Army University White Paper" centered on the realization that the Army's education system did not address the growing complexity of the twenty-first century security environment.<sup>3</sup> The paper described an Army education system that reflected an obsolete industrial-age methodology, employing a rigid assembly-line approach focused on procedures that failed to promote the kind of critical thinking necessary for a new operational environment. Another identified shortfall was the inability to proliferate best practices throughout the Army due to the stove-piped nature of Training and Doctrine Command's (TRADOC) seventy separate schools and research libraries. Additionally, the white paper cited substandard accreditation of Army training and education due to a failure to align educational requirements with those of authoritative accrediting agencies. These factors resulted in wasted time and tuition assistance money, as soldiers seeking academic credit had to retake courses in competencies they previously mastered as they pursued a degree or credential from America's educational institutions.

Subsequently, the white paper called for a renewed focus by the Army's educational enterprise on cultivating innovative methods to study the application of lethal force with an emphasis on LSCO. In March 2015, the commanding general of TRADOC released the *Strategic Business Plan for the Army University* to modernize the overall Army education system.<sup>4</sup> The plan included three lines of effort: increased academic rigor and relevance; greater respect and prestige; and improved management practices and institutional agility. These lines of effort contained eight initiatives that evolved into key tasks captured in the order establishing Army University.<sup>5</sup> In response, a fundamental retooling of Army education at its highest levels is underway. Army University is now integrating a uniform, foundational understanding of LSCO into curricula development while at the same time developing a capable world-class faculty to create an innovative learning environment.

## Curriculum Changes and Large-Scale Combat Operations

As Carl von Clausewitz observed with regard to the military mind, "In addition to his emotional qualities,

the intellectual qualities of the commander are of major importance. One will expect a visionary, high-flown and immature mind to function differently from a cool and powerful one.<sup>6</sup> To cultivate cool and mature minds, Army University focuses its staff and faculty development curricula on the execution of large-scale ground combat to develop soldiers and leaders capable of executing operations to defeat peer and near-peer aggression around the world. Army University facilitated changes in the branch captains career courses and also revamped the CGSC curriculum to accommodate LSCO principles. These initiatives foster an understanding among students about LSCO that enables them to gain a position of intellectual advantage. To this end, Army University uses the recently revised Field Manual (FM) 3-0, *Operations*, and supporting doctrine to develop students with a common understanding of complex multi-domain operations as they prepare for service in theater armies, corps, divisions, and brigades.<sup>7</sup>

## Learning Enterprise Advisory Program

Army University is moving Army training and education beyond branch stovepipes to proliferate best educational practices. Army University's Directorate

of Academic Affairs established the Learning Enterprise Advisory

**Col. Tom Bolen, U.S. Army**, is the director for Strategic Policy and Plans, Office of the Provost, Army University. He has a BS in geography from the United States Military Academy, an MBA from Embry-Riddle Aeronautical University, and an MA in national security and strategic studies from the Naval War College. He commanded 2nd Battalion, 29th Field Artillery Regiment at Fort Bliss, Texas, and the 1st Infantry Division Artillery (DIVARTY) at Fort Riley, Kansas.

**Vince Carlisle, PhD**, manages the Army's Learning Coordination Council from within the Directorate of Strategic Policies and Plans, Office of the Provost, Army University. He has a BA in Russian studies from the University of Washington; a master's in public administration from Troy University; and a PhD in adult, occupational, and continuing education from Kansas State University. He is an adjunct instructor for Webster University in management strategy and organizational behavior.

Program (LEAP) as an initiative to provide academic services to centers of excellence (CoEs) and schools and to share best practices across the learning enterprise. LEAP services are based on CoE self-assessments and requests for assistance, and leverage the Army University areas of expertise. The Directorate of Academic Affairs tailors LEAP visits for different learning audiences at the executive, manager, and employee levels, and fosters initiatives in critical areas such as regional and national accreditation standards, faculty and staff development, instructional design, course design and management, and institutional research and assessments. Interaction by the LEAP teams ensures the best academic practices of teaching LSCO proliferate across the Army in the shortest time possible.

## Continuing Education Degree Programs

Preparing soldiers and leaders for success in potential large-scale operations of the future requires expanded opportunities for critical thinking and academic advancement. Having begun the process to move beyond an industrial-age approach, Army University is also working to move beyond marginal accreditation standards and to make progress in its continuing education degree program (CEDP) and its private and public partnership expansion initiatives. As of March 2018, fourteen centers of excellence and schools have approved CEDP programs associated with thirty-one military occupation specialties (MOSs).

Army University CEDP efforts now cover 100 percent of enlisted soldiers under seven CEDPs for leadership with six different universities. In conjunction with the centers of excellence and schools, Army University established forty-one officer CEDPs at the master's level and eight warrant officer CEDPs and ninety enlisted CEDPs at the associate and bachelor's levels. The Army now has CEDPs established with twenty-eight different colleges and universities.

Army University plans to add a CEDP link to the Army Credentialing Opportunities On-Line web page and the Army Career Tracker to enable soldiers to identify further educational opportunities. It also intends to develop products and promotional events to ensure soldiers are aware of the CEDP opportunities available to them.

## Public and Private Partnerships

A related Army University effort is the expansion of public and private partnerships with academic



institutions to increase credit awarded for Army training and education. In February 2018, AU's Directorate of Learning Systems attended the Kansas Board of Regents (KBOR) Credit for Military Alignment Working Group. This group met to review the Army's 91C (utility equipment repairer) MOS. Seventeen college instructors and deans representing ten community and technical colleges attended this working group, along with representatives from the Combined Arms Support Command and the Kansas Army National Guard. The Kansas colleges conducted program-of-instruction extract reviews and conducted an occupational review with the Kansas Army National Guard Regional Training Institute.

The Directorate of Learning Systems also worked with the U.S. Army Sergeants Major Academy and the KBOR to establish credit for Basic Combat Training, the Basic Leader Course, the Advanced Leader Course, and related distributed learning courses in support of statewide Associate of Arts or Bachelor of Arts degree programs in management or leadership. Currently, the KBOR has over eighty-eight articulated agreements covering twenty-seven MOSs spanning twenty-three educational institutions focused on MOS specific credit. The goal is to introduce the articulated credit gained by attending noncommissioned

Command and General Staff College (CGSC) students compete in a combination of board game and digital-based simulations 21 February 2018 identifying and comparing the strengths and weakness of both at the Lewis and Clark Center, Fort Leavenworth, Kansas. (Photo courtesy of the CGSC)

officer professional military education leading to a technical management degree to all regional boards of regents. Recognition of Army training and education by established academic bodies promotes the continuous learning by all cohorts of Army leaders as they prepare for the complex environment inherent to LSCO.

## Distributed Learning Programs

Army University achieved success in numerous areas in the three years since it was chartered, and many are a direct result of the success of efforts by the Directorate of Distributed Learning (DDL). The DDL's accomplishments involve progress in development of virtual learning environments; interactive digital publications; mobile learning; and academic, industry, and sister services partnerships. These projects help Army University create innovative and rigorous learning environments,



professionalize distributed learning (DL) curricula, and cultivate credentialed learners. Many of the products developed by the DDL reflect the doctrinal foundation of FM 3-0 and the Army's focus on LSCO.

### **Army Virtual Learning Environment**

A major milestone of the DL modernization goal was the award of the five-year Army Virtual Learning Environment (AVLE) contract in February 2018. This event represents a significant step in modernizing the DL program. The AVLE is the Army's centralized contract allowing proponents the ability to request innovative learning products and courseware that are accessible at the point of need. The AVLE enables the creation of more realistic content that engages the senses and uses delivery methodologies not used before in distributed learning. In the future, these delivery methods will include synthetic tutors, gamification, machine cinema (machinima), and virtual/augmented reality. Having a streamlined contracting process for DL initiatives supports rapid product development and the potential for increased input from the CoEs and schools, particularly in the area of LSCO.

Chief Warrant Officer 3 Patrick Montgomery and Spc. Manuel Álvarez, members of 1st Armored Division Combat Aviation Brigade, inspect a Lycoming O-290 aircraft engine 10 May 2018 during the hands-on training of an airframe and powerplant class at Fort Bliss, Texas. Army University provides opportunities for soldiers to obtain civilian degrees and certifications for their military training while preparing them for large-scale combat operations. (Photo by Sgt. Kris Bonet, U.S. Army)

### **Self-Structured Development**

The DDL is also working closely with the United States Sergeants Major Academy as they transition from structured self-development to distributed leaders courses. These courses engage the learner through a scenario-based learning environment. Assessments are delivered through storylines using a stealth-style of assessment throughout the course scenario versus the traditional multiple-choice questions. Stealth-style assessments were popularized in the gaming industry and should be invisible to the learner; this feature retains the engagement with the story intact. The evolution of distributed leaders courses provides another avenue to introduce LSCO and multi-domain operational concepts to the next generation of noncommissioned officer leadership.

## Mobile Learning

Since establishing the Army's mobile learning division, the DDL has made tremendous strides in mobile learning. Working with Department of the Army chief information officer and the Defense Information Security Agency (DISA), the DDL added numerous Android apps onto the DISA's application store. An example is the fielding of the vehicle recovery calculator, which incorporates the rigging, sling leg force, and Mire formulas taught at the recovery school in one easy-to-reference application. Also, in coordination with the TRADOC command sergeant major, the DDL fielded an iBook and Android mobile app version of the *Noncommissioned Officer Guide*; as of March 2018, downloads number over twenty-four thousand.<sup>8</sup> These tools and applications represent the future of products tailorable for large-scale operations and multi-domain problems.

## Digital Rucksack Mobile App

The DDL is supporting the TRADOC command sergeant major by integrating MOSs within the Digital Rucksack mobile app into an interface for electronic assistance response support via Amazon's Alexa and Xbox One educational prototypes. Current efforts focus on identifying development capabilities for the console hardware to distribute apps and e2Books. Permissions were also granted to use the Halo 5 interface to create a soldier skill machine cinema (machinima) and playable soldiering skill scenarios. Chapters from Center for Army Lessons Learned Manual 10-62, *Convoy Operations in Afghanistan*, are used to illustrate engine capabilities, and the DDL is evaluating a method of posting audio

book versions of publications to Audible.<sup>9</sup> To continue promotion of the LSCO theme, the FM 3-0 audiobook is targeted as the first publication for delivery.

## Summary

These initiatives are indicative of the breadth of achievement in the three years since the chartering of Army University. The AU team continues addressing shortfalls identified in the 2015 "Army University White Paper," to the clear benefit of our soldiers and veterans. Once considered an industrial-age education system, the Army system will soon include a degree path for all enlisted soldiers and warrant officers. Additionally, once assessed as having a lack of ability to proliferate best practices, the Army system now boasts a modern distributed learning capacity and multiple avenues for increased academic credit and credentialing opportunities. The finding of poor accreditation practices for Army training and education is under review and is the subject of leadership, education, and material analysis. Moreover, additional opportunities for continued improvement are nearly limitless, as numerous academic institutions actively seek to partner with Army University to provide more educational opportunities for soldiers.

Army University's efforts are increasing the academic rigor and relevance of education programs with respect to LSCO and multi-domain operations. The primary metric for AU's efforts, however, remains the readiness of soldiers prepared to tackle the complexity of the twenty-first century battlefield; those soldiers represent our credentials. ■

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## Notes

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2. Office of the Secretary of Defense, "Summary of the 2018 National Defense Strategy of the United States of America" (Washington, DC: Department of Defense, 2018), 8, accessed 16 August 2018, <https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>.

3. "The Army University White Paper: Educating Leaders to Win in a Complex World" (Fort Leavenworth, KS: U.S. Army Combined Arms Center, 2015), 4, accessed 16 August 2018, <https://usacac.army.mil/publication/the-army-university-white-paper>.

4. Training and Doctrine Command (TRADOC), *Strategic Business Plan for the Army University* (Fort Eustis, VA: TRADOC, 16

March 2015), accessed 16 August 2018, [http://www.tradoc.army.mil/INCOPD/reference/ArmyU\\_Strategic\\_Plan.pdf](http://www.tradoc.army.mil/INCOPD/reference/ArmyU_Strategic_Plan.pdf).

5. *Ibid.*, 7.

6. Carl Von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Oxford, UK: Oxford University Press, 2007), 88.

7. FM 3-0, *Operations* (Washington, DC: U.S. Government Printing Office [GPO], 2017).

8. Training Circular 7-22.7, *Noncommissioned Officer Guide* (Washington, DC: U.S. GPO, 7 April 2015).

9. Center for Army Lessons Learned (CALL) Handbook 10-62, *Convoy Operations in Afghanistan: Observations, Insights, and Lessons* (Fort Leavenworth, KS: CALL, September 2010).