



Lt. Gen. Milford Beagle Jr., commanding general of the U.S. Combined Arms Center, delivers a presentation on transforming in contact, deliberate transformation, and concept-driven development 10 September 2024 during the first day of the annual Maneuver Warfighter Conference at Fort Moore, Georgia. The annual conference gathers U.S. Army senior leaders and subject-matter experts from across the globe to discuss the way forward for maneuver forces. (Photo by Patrick A. Albright, U.S. Army)

# Continuous Transformation

## Institutional Transformation in Contact

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The Army operates in an environment that is more complex, dynamic, and unpredictable than ever before. The rapid pace of technological advancement, coupled with the evolving capabilities of near-peer adversaries, has created a battlefield that demands adaptability and constant innovation. To succeed in this environment, the Army must not only be ready to fight today's battles but also be prepared to win tomorrow's wars. This is where *transformation in contact* (TiC) becomes essential. TiC is not just about modernization—it's about enabling the Army to adapt in real time, evolving in sync with the demands of the operational environment while maintaining strategic overmatch.

The chief of staff of the Army's vision for TiC is rooted in the belief that the Army must remain responsive, capable, and lethal across all domains—land, air, sea, space, and cyber. However, this transformation is not just about the operational forces on the front lines. It extends deeply into the institutional Army, the engine that drives the training, sustaining, and equipping of soldiers and leaders for the fight and ensures its Army civilian professionals remain a vital part of the enterprise. The institutional Army must undergo its own transformation to ensure it can continuously adapt and support the operational force, providing it with the necessary tools, skills, and leadership to succeed.

As the heart of the institutional Army, the U.S. Army Training and Doctrine Command (TRADOC) plays a critical role in this transformation. Working closely with Army Futures Command (AFC), TRADOC is responsible for ensuring the Army's doctrine, organization, training, and leadership evolve in response to operational demands. TRADOC, through the efforts of the Combined Arms Center and the Center for Initial Military Training, ensures that TiC translates from concept to practical action, driving real change within the Army. This article explores how TRADOC leads this effort, which will ensure that soldiers are not only prepared for today's challenges but also ready to face the threats of tomorrow.

## Time as a Factor in Transformation

Transformation does not happen overnight, especially in an institution as large and complex as the U.S. Army. While technology may evolve quickly, the process of integrating new systems, updating doctrine, adapting training, and developing leaders requires

well-thought-through timing and prioritization. Time is a critical factor in the Army's ability to transform, and different components of transformation move at different speeds.

Contrary to popular belief, doctrinal changes are among the fastest to evolve. As the Army gathers lessons from the battlefield, doctrine is updated to reflect real-world experiences. The Quick-Fire process and Center for Army Lessons Learned (CALL) assessments allow TRADOC to integrate feedback from operational units and rapidly update doctrinal publications like Army techniques publications and field manuals (FM).<sup>1</sup> While doctrine can be updated quickly to reflect new operational insights, fully preparing soldiers and leaders to implement these changes across the

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force takes time. This process includes technical training and structured development through NCO and officer professional development programs, ensuring personnel return to their units equipped with the latest skills and knowledge to meet evolving Army requirements.

*Training adaptation* is closely tied to doctrinal changes. TiC, in some cases, requires adjusting training models. Modernizing training methods and ensuring soldiers can apply new tactics and technologies in a multidomain environment requires synchronization across resources, personnel, and time. While training centers and simulations allow for rapid updates, the broader integration of new training approaches—especially at scale—requires a deliberate process. This is where the Distributed Simulation Environment plays a pivotal role.<sup>2</sup> By developing user stories and contributing to next-generation constructive simulations, Distributed Simulation Environment enables low-overhead training environments that mirror real-world operational demands without the need for heavy infrastructure. This allows the Army to modernize training more quickly and efficiently, but the challenge remains in ensuring that soldiers can absorb and retain these new skills effectively.

*Leadership development* has been and always will be a trademark of our Army. Developing leaders takes time because it requires a balance of formal education, hands-on experience, and continuous learning in the operational environment. The formal “schoolhouse” professional military education (PME) must be reinforced at the unit level. This slower pace of leadership development means that while doctrinal changes and training updates may happen rapidly, it can take years for those changes to be fully realized in the leaders who command the Army’s formations.

In short, while some elements of transformation can happen quickly—like doctrinal updates—others, such as training and leadership development, require a more deliberate approach. Understanding these timelines is essential for prioritizing efforts and ensuring that institutional transformation in contact (I-TiC) supports the operational Army effectively without overwhelming the force.

## Identify Problems First, Then Introduce Solutions

The Army’s success in transforming itself lies not just in its ability to develop solutions but in its ability to

clearly identify the problems it faces. In an operational environment that is increasingly complex, distributed, and multidomain, understanding the challenges is the first step toward meaningful transformation. Often, the solutions the Army adopts—whether technological, organizational, or doctrinal—are the result of a detailed examination of the battlefield challenges it encounters. Through I-TiC, TRADOC takes the lead in identifying critical challenges and proactively develops the systems and structures needed to solve them.

For example, the concept of multidomain task forces (MDTF) was developed in response to the need for the Army to operate effectively across multiple domains—land, air, sea, space, and cyber—simultaneously. MDTFs did not emerge simply because they were a technological advancement; they were introduced because the Army needed formations that could coordinate complex, distributed operations and leverage capabilities across all domains. Similarly, C2 Fix—the initiative to refine command-and-control (C2) structures—was designed to address specific gaps in the Army’s ability to maintain situational awareness and command fluidity across large, dispersed units.<sup>3</sup>

By focusing on the problem first, TRADOC ensures that the solutions it introduces—whether they involve new force structures like MDTFs, doctrinal updates through C2 Fix, or training enhancements with next-generation constructive technology—are directly relevant to the Army’s operational needs. This approach prevents the Army from implementing technology or systems for the sake of modernization alone. Instead, each solution serves a clear, identified purpose, ensuring that the institutional Army remains responsive and adaptive in support of the operational Army.

## Doctrine: A Continuous Process

Doctrine is the foundation of the Army’s ability to fight and win, but it is not static. Since 2017, the Army’s doctrine has been continually transformed to reflect operational needs, ensuring that it remains relevant to the evolving battlefield. Under I-TiC, this process of doctrinal transformation has accelerated, driven by the recognition that agility in both fighting and preparing to fight is essential for success in a multidomain environment.

TRADOC plays a central role in ensuring that doctrinal updates are both timely and relevant. This

process is driven by real-time feedback from the battlefield, which is gathered and analyzed by CALL. Through the Quick-Fire process, TRADOC rapidly integrates lessons from operational environments into updated doctrine, ensuring that the latest tactics and techniques are reflected in Army publications. Recent doctrinal changes related to electronic warfare based on direct feedback from soldiers encountering adversaries using the electromagnetic spectrum to disrupt

decisions in a resource-constrained environment. In a zero-sum game, where resources, manpower, and funding are finite, every decision carries trade-offs. Army senior leadership and TRADOC face the task of ensuring that the force is structured to meet both current operational demands and the complexities of future conflicts.

TRADOC actively refines and shapes the organizational framework to ensure it supports evolving force

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communications are a prime example of this process. TRADOC led the doctrinal revisions, ensuring units are prepared to meet these challenges head-on. While cyber warfare has also been a focus in recent years, the immediate lessons learned from electronic warfare operations prompted swift doctrinal updates that had an immediate impact on the force. This included updating Army Regulation 525-24, *U.S. Army Cyberspace and Electromagnetic Warfare Operations*, in 2023 and FM 3-12, *Cyberspace and Electromagnetic Warfare*, which is set to be published this fall, along with the creation of the Intelligence and Electronic Warfare Tactical Proficiency Trainer (IEWPMT) to enhance operational capabilities in this domain.<sup>4</sup>

It is important to recognize that doctrinal transformation is not new. TRADOC has been modernizing doctrine for years, in close collaboration with AFC and CALL, to ensure that doctrine remains aligned with the Army's evolving operational needs. The ongoing focus on multidomain operations is just one example of how doctrine has continually adapted to support the Army's strategic objectives. This partnership among TRADOC, AFC, and CALL ensures that the Army's doctrinal foundation is not only forward-looking but also rooted in real-world experience.

## Organizational Adaptation: Making Difficult Decisions

Adapting the Army's organizational structures to meet the demands of modern warfare requires strategic

structures, making necessary adaptations based on real-time feedback. Through continuous assessments, TRADOC ensures that organizational changes are scalable and adaptable across different types of units. This adaptability is essential because battlefield conditions change rapidly, and organizational structures must be flexible enough to meet those evolving demands. For example, the mobile/light brigade combat team (M/L BCT) concept is one area where TRADOC is enabling change. M/L BCTs are designed to offer greater mobility and responsiveness, enabling units to operate across a range of environments with speed and agility. The focus is on reducing unit footprints while maintaining combat effectiveness, ensuring these formations are both flexible and lethal.

Another critical initiative is the ongoing modernization of combat training centers (CTC). TRADOC's assessments at CTCs are not just about training soldiers; they are integral to refining the Army's organizational design. The lessons learned at these centers help shape decisions about how units should be structured and how they should operate in multidomain environments. These assessments ensure that organizational changes are not made in isolation but are based on feedback from the field, ensuring they are scalable and applicable across the force.

The C2 Fix initiative also plays a significant role in organizational adaptation. C2 is the backbone of military operations, and TRADOC is working to refine how C2 structures function in large, dispersed units. By

testing and adjusting command frameworks through assessments, TRADOC ensures that these structures remain robust enough to handle the complexity of modern warfare while also remaining flexible enough to adapt to shifting battlefield dynamics.

## Training: Addressing Real Problems

The Mobile Advanced Readiness Training (MART) program is a critical initiative that ensures units can rapidly adapt to new tactics, technologies, and operational environments. MART is designed to bridge the gap between institutional training and operational readiness, providing units with the flexibility to incorporate cutting-edge systems into their training cycles without disrupting their operational tempo. This adaptability is key in today's fast evolving, multidomain operational landscape.

One of the core strengths of MART is its ability to deliver customized, scalable training solutions to units wherever they are located, reducing the need for costly, large-scale training events. Instead of requiring units to relocate to specific training centers, MART brings advanced training directly to them, allowing soldiers to practice integrating new systems, tactics, and technologies within their own operational context. This flexibility not only saves time but also ensures that units can train under realistic conditions that closely mimic their deployment environments.

The program's emphasis on multidomain operations makes it particularly relevant in preparing soldiers to confront threats across land, air, sea, space, and cyber. MART allows units to develop and refine their capabilities in these diverse domains, ensuring they remain effective and resilient when faced with evolving threats. This approach enables soldiers to build the agility and adaptability necessary to operate across multiple domains simultaneously, a requirement in modern conflict.

Additionally, MART integrates feedback from ongoing operations and incorporates lessons learned into its training cycles. This continuous loop of real-time adaptation ensures that the training remains relevant and up to date with current battlefield realities. The ability to rapidly adjust and refine training to match emerging threats is one of the hallmarks of the initiative, keeping units at the forefront of readiness.

However, the success of training is not solely dependent on systems like MART. It hinges on soldiers'

ability to retain and apply what they have learned when faced with the pressures of real-world operations. This is where CTCs and the Mission Command Training Program play vital roles. These centers offer full-scale, multidomain training environments where soldiers and units are placed in scenarios that mirror the complexities of modern combat. By integrating new systems and tactics into realistic settings, CTCs and the Mission Command Training Program help units refine their decision-making processes, strengthen cohesion, and improve their overall combat effectiveness. The feedback gathered from these training environments is directly integrated into TRADOC's broader training programs, ensuring that the Army continuously adapts its training based on real-time operational needs.

As TRADOC refines its training programs, the focus remains on ensuring relevance and applicability. The process is not just about incorporating new technologies or refreshing doctrine—it's about guaranteeing that soldiers are equipped to perform at their highest level in the most complex and contested environments. By continuously adapting training to incorporate lessons learned from real-world operations, TRADOC ensures that the Army remains agile and ready for any challenge.

## Leadership: Preparing for the Crucible of Modern Warfare

Leadership is the cornerstone of the Army's ability to operate in the unpredictable and fast-paced environment of modern warfare. The demands on today's leaders are greater than ever before, as they must be prepared to contest adversaries across multiple domains while navigating the complexities of ever-evolving battlefield conditions. Under I-TiC, TRADOC is responsible for ensuring that leadership development keeps pace with these demands, equipping commanders with the skills, mindset, and adaptability required to succeed in an era of constant change.

The reality of modern warfare is that adversaries have capabilities that rival or exceed those of the United States across multiple domains including land, sea, air, space, and cyber. Leaders must be ready to confront these adversaries who are able to contest U.S. forces in all operational environments with lethal and sophisticated systems. As a result, leadership development must focus on preparing commanders for a future

in which they are constantly challenged to make quick, informed decisions in high-pressure, complex scenarios.

One of the key challenges in leadership development is ensuring that commanders are not only knowledgeable but also adaptable. Leadership training and education under I-TiC must be flexible enough to evolve alongside changes in doctrine, technology, and the nature of the threats the Army faces. TRADOC's philosophy is to educate leaders for uncertainty, preparing them to thrive in unpredictable environments. This philosophy is reflected in TRADOC's leadership development initiatives, which focus on fostering agility, critical thinking, and creativity. The goal is to ensure that future leaders can think critically and make informed decisions in situations where they have limited time and incomplete information, enabling them to navigate the complexities of modern warfare with confidence.

To support this, TRADOC continuously updates its programs of instruction, integrating lessons learned from the battlefield to ensure leadership training remains relevant. These updates are not just theoretical; they are informed by real-world experiences that directly impact how leaders approach challenges in the field. While some updates may take time, the process does not always take three years. A key part of this modernization is the focus on warrant officer PME, ensuring that these specialized leaders are trained to meet the demands of modern multidomain operations.

Additionally, data literacy has become an essential component of PME, preparing leaders to operate effectively in data-rich, complex environments. By integrating data literacy into PME, TRADOC ensures that future leaders can interpret and act on data quickly, a critical skill in decision-making across multiple domains.

## Addressing Innovation and Risk Management

Innovation has always been at the heart of the Army's success. In the face of an increasingly complex global threat environment, the Army must continue to innovate not only in technology but also in how it organizes, trains, and leads its soldiers. TRADOC's goal under I-TiC is

to capture and scale innovation across the force while managing the risks associated with rapid transformation. The Army cannot afford to stagnate, but it also must ensure that the pace of innovation does not overwhelm the force or undermine its current readiness.

One key area where innovation is being driven forward is through the Line of Departure platform, with the Harding Project serving as the impetus to spark professional dialogue and discourse among leaders.<sup>5</sup> By linking innovators with end users, Line of Departure provides a structured platform for facilitating these discussions, ensuring that ideas generated within the force are practical, grounded in real operational needs, and quickly implemented. This approach bridges the gap between theory and practice, ensuring that soldiers on the ground are equipped with solutions that address their immediate challenges.

Innovation also requires balancing risk. As new systems, doctrine, and organizational structures are introduced, there is always the potential to overextend the force or push changes too rapidly. The Army must manage these risks by carefully prioritizing its initiatives. Leaders must focus on what is most important and achievable, ensuring that resources and attention are concentrated on initiatives that will have the greatest impact on readiness and operational capability.

In recent years, TRADOC has adopted a more methodical approach to risk management, ensuring that innovations are aligned with strategic objectives and phased in gradually to avoid overwhelming the force.



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For example, innovations introduced through programs like the counter-small unmanned aircraft system (C-sUAS) initiative have been successful because they were implemented with a clear focus and timeline, allowing for proper integration without disrupting overall operations. The success of the C-sUAS program highlights TRADOC's ability to foster innovation while managing the associated risks, ensuring that the Army remains agile, adaptable, and ready for the challenges of modern warfare.

Ultimately, TRADOC's role is to ensure that the Army stays ahead of emerging threats by fostering a culture of innovation while also mitigating the risks associated with rapid change. Innovation cannot come at the cost of readiness, and the challenge for TRADOC is to strike the right balance—capturing new ideas and technologies, scaling them across the force, and ensuring that soldiers can incorporate these innovations without feeling overwhelmed by the pace of transformation.

## Urgency and Focus

The global security landscape is evolving in ways that demand swift and decisive action from the Army. From the war in Ukraine to China's growing influence, these events underscore the need for the Army to accelerate its transformation efforts. The battlefield of the future will not wait for us to catch up. We must anticipate, adapt, and respond faster than our adversaries. That sense of urgency is embedded in I-TiC, where TRADOC plays a critical role in ensuring that the Army remains agile, responsive, and focused on the right priorities.

But with transformation comes the need for clarity. The Army must remain laser-focused on what it can influence and control while working in tandem with joint and coalition partners to address larger, systemic challenges. TRADOC's role is to focus on the aspects of transformation that it directly shapes—doctrine, organization, training, and leadership—while collaborating with other Army entities and joint forces to solve issues that fall outside its purview.

The urgency also lies in ensuring that transformation is not only a top-down initiative but also something that permeates every echelon of the Army. Soldiers on the ground must feel the effects of transformation in their day-to-day operations. The challenge

for TRADOC is not just in driving large-scale institutional change but in making sure that this change translates into tangible, practical improvements for soldiers in the field. The true test of transformation is how well it equips soldiers to perform their missions.

In short, TRADOC's focus remains clear: it must ensure that the Army can meet the challenges of the future while ensuring that the force remains combat-ready today. This balancing act requires both urgency and discipline, ensuring that transformation efforts are sustained and that they deliver measurable results where they are needed most.

## Conclusion

The Army stands at a pivotal moment in its history. The challenges it faces today are as complex and unpredictable as they have ever been. However, TRADOC is at the heart of Army transformation through I-TiC, ensuring that the institutional Army is not only aligned with today's operational demands but is also prepared for the battles of tomorrow.

As we move forward, the lessons learned from I-TiC will inform the Army's next phase of transformation. The transition into *deliberate transformation* and *concept-driven change* will build on the foundation laid today, ensuring that the Army is constantly evolving and improving. These phases will continue to refine the Army's organizational structures, leadership development, and training methods, aligning with the strategic imperatives of the future.

Through its contributions to doctrine, organization, training, and leadership, TRADOC adapts to the evolving needs of the Army, playing a critical role in ensuring the institutional Army remains aligned with operational demands. Through its focus on responsiveness, adaptiveness, and efficiency, TRADOC ensures that the institutional Army is always prepared to support the operational Army, providing it with the leadership, training, and doctrine it needs to succeed in any environment. This transformation is not just about the future—it is about ensuring that the Army is ready, capable, and dominant today.

Looking ahead, the work of transformation will continue, but the Army is already on the right path. The foundation laid through I-TiC will ensure that the Army remains agile and capable of outpacing any adversary, now and in the years to come. ■

## Notes

1. Quick-Fire is a rapid doctrinal update system used by TRADOC to integrate real-time feedback from soldiers and units, ensuring lessons learned from operations and training are quickly disseminated and applied across the Army. Observations can be submitted directly through the CALL Quick-Fire Observation Portal at <https://armyeitaas.sharepoint-mil.us/>; see also Eric Hillner, "Quick-Fire Observations: Rapidly Resolving Issues and Informing the Force," Army.mil, 19 January 2024, [https://www.army.mil/article/273050/quick\\_fire\\_observations\\_rapidly\\_resolving\\_issues\\_and\\_informing\\_the\\_force](https://www.army.mil/article/273050/quick_fire_observations_rapidly_resolving_issues_and_informing_the_force).

2. Science and Technology Report TR-MSG-086-Part-II, *Guideline on Scenario Development for (Distributed) Simulation Environments* (Brussels: NATO, January 2015), <https://apps.dtic.mil/sti/tr/pdf/ADA623040.pdf>.

3. Mark Pomerleau, "Army Developing Next Generation of Command and Control for All Units, Echelons," DefenseScoop, 30 May 2024, <https://defensescoop.com/2024/05/30/army-developing-next-generation-command-control-for-all-units-echelons/>.

4. Army Regulation 525-24, *U.S. Army Cyberspace and Electromagnetic Warfare Operations* (Washington, DC: U.S. Government Publishing Office [GPO], 12 July 2023); Field Manual 3-12, *Cyberspace and Electromagnetic Warfare* (Washington, DC: U.S. GPO, forthcoming); "Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT)," Program Executive Office Simulation, Training and Instrumentation, accessed 13 November 2024, <https://www.peostri.army.mil/Weapon-Systems/-PM-CT2/PdM-FTS/IEWTPT/>.

5. Line of Departure, accessed 29 October 2024, <https://www.lineofdeparture.army.mil/>.