



An M8 Light Armored Car is used to conduct reconnaissance during World War II circa 1944. The M8, sometimes referred to as the Greyhound, was provided to cavalry units as a reconnaissance vehicle. It could travel at speeds of 55 mph and had excellent on-road mobility, which made it especially useful for operations on the well-developed road systems of Europe. It was equipped with a long-range radio and was armed with a 37 mm gun and either a .30-caliber or .50-caliber machine gun. The M8 proved very versatile and was widely used by cavalry units for reconnaissance and to support screening missions both during World War II and for decades after the war. (Photo courtesy of War History Online, www.warhistoryonline.com)

Fighting Forward

Modernizing U.S. Army Reconnaissance and Security for Great Power Conflict

Maj. Nathan Jennings, U.S. Army

The U.S. Army is currently grappling with a critical gap in its capability to win expeditionary wars against near-peer adversaries. As the institution reorients on potential large-scale ground combat operations against opponents like Russia and China, it is forming a consensus, once again, that its corps and divisions require echeloned reconnaissance and security (R&S) forces to shape conditions in flank and deep areas for follow-on maneuver by brigade combat teams (BCTs). This necessity, which requires dedicated combined arms teams to enable freedom of action, sustain operational tempo, and preserve formation cohesion for higher tactical commands, remains an essential requirement for U.S. joint forces to penetrate, dislocate, and disintegrate adversary area denial defenses.

The Army's dearth of ground cavalry at higher tactical echelons reflects wider unpreparedness for conflicts of larger scope, intensity, and duration following prolonged counterinsurgency campaigns in the Middle East. Paralleling reorganizations of artillery, air defense, aviation, and engineer echelons, the force divested its armored cavalry regiments (ACRs) and division cavalry squadrons (DIVCAVs)—which were specifically designed to enable corps and division maneuver—between 2003 and 2011 in favor of creating standardized armored, Stryker, and infantry BCTs. As argued by Gen. Mark Milley, the Army's thirty-ninth chief of staff, these kinds of transitions have risked the institution's "ability to conduct ground operations of sufficient scale and ample duration to achieve strategic objectives."¹

The resulting capabilities gap consequently requires either acceptance of the current approach with corresponding mitigation or a substantial reorganization of the Army's R&S architecture across multiple echelons. Numerous corps and division command-post exercises, in addition to historical insights from Operation Iraqi Freedom, the Persian Gulf War, the Korean War, and the Second World War, have shown that newer surveillance and collection technologies will remain unable to fully replicate the value of forceful reconnaissance by ground cavalry formations.² Moving forward, the Army can explore several relatively cost-neutral options for addressing the problem: maintain the current R&S BCT doctrine, reorganize all BCT cavalry squadrons into modernized ACRs and DIVCAVs, convert select BCTs into modular cavalry groups, or convert select BCTs into reconnaissance-strike task forces.

Echeloning Reconnaissance and Security

Any discussion of echeloned R&S begins with recognizing differences in the means required to shape deep operations for corps and divisions and those required to enable close combat by brigades and battalions. For three- and two-star tactical commands, this has historically meant resourcing powerful, combined-arms formations with dedicated aviation and long-range fires to allow contested information collection across expanded frontages and depths.³ While brigade and battalion scouts also habitually leverage air and ground fires to increase reach and lethality, cavalry formations at higher tactical levels, as the "eyes and ears" of senior commanders, require greater enhancement to allow increased maneuver independence and tactical responsiveness.

The 1991 Persian Gulf War, for example, illustrated how cavalry at corps and division levels could echelon operations to enable the decisive defeat of an entrenched, armored opponent. In that desert conflict, the 2nd and 3rd ACRs executed aggressive reconnaissance-in-force actions ahead of the VII Corps and XVIII Airborne Corps while arrayed DIVCAVs followed to facilitate forward passage of lines and guide their respective divisions' attacks.⁴ The result was an informed approach where synchronized scouts enabled a massive and fatal envelopment of the defending Iraqi forces in southern Iraq. As stated by the VII Corps' 1991 *Operation Desert Shield/Storm After Action Report*, this experience validated that the U.S. Army's order of battle needed "armed and armored recce at every level ... battalion through corps."⁵

This enduring requirement finds expanded historical relevance in the massive offensives of the Second World War. In 1944 and 1945, as the U.S. Army advanced into France and Germany, it employed echeloned cavalry to shape forward conditions. While field armies provided corps with mechanized cavalry groups (MCGs) comprising two squadrons with wheeled

Maj. Nathan Jennings is a U.S. Army strategist and a history instructor at the Command and General Staff College in Fort Leavenworth, Kansas. He served two combat tours in Iraq, taught history at the U.S. Military Academy, and served as a strategic planner in Afghanistan. Jennings holds an MA in history from the University of Texas at Austin and an MMAS from the School of Advanced Military Studies.

vehicles and light tanks, the armored divisions each owned a mechanized squadron and the infantry divisions owned a motorized reconnaissance troop. The MCG in particular provided senior tactical commanders with a modular “pool” of reconnaissance forces that could operate while consolidated or dispersed to empower main efforts. Throughout the conflict, the Army deployed thirteen MCGs and sixteen divisional squadrons to Europe.⁶

R&S echelonment has likewise proved valuable in more decentralized campaigns. Harkening back to its frontier origins, the 11th ACR provided the III Corps and Military Assistance Command, Vietnam, with three highly mobile armored squadrons that specialized in dispersed patrolling, route security, and if required, shock attack as they fought a determined guerrilla resistance. The regiment’s unique combined-arms capabilities proved critical in repelling Viet Cong attacks in the Saigon area during the Tet Offensive in 1968.⁷ Three decades later, as the United States countered a strong insurgency in Iraq, the 3rd ACR demonstrated similar value by providing the coalition with an economy of force option for securing expansive and peripheral Iraqi areas like Al Anbar and Tal Afar.

This type of echelonment reached maximum effectiveness during the 1980s and 1990s through organic integration of air-ground cavalry teams designed to extend the operational reach and enable tempo for corps and divisions. By pairing rotary wing with ground scouts under Army of Excellence and AirLand Battle reforms, cavalry organized to conduct deep reconnaissance, lethal counterreconnaissance, and durable flank security against peer threats with increased capacity for wide-ranging maneuver. As noted by U.S. Army Armor School historian Robert Cameron, “Air scouts used their superior speed to cover long distances and warn of imminent threats,” while ground partners “maneuvered in their wake to develop situations and provide more detailed information.”⁸

Looking to build on proven ACR and DIVCAV strengths, their successors—in whatever form they take—must integrate traditional combined-arms approaches with newer cross-domain capabilities. These emergent additions, which may include cyber-electronic, informational, space, and special operations means, offer potential to empower R&S actions with vastly expanded operational reach and responsiveness.⁹ In coming decades, modernizing cavalry formations may also leverage advances in artificial intelligence, remote and autonomous platforms, hypersonic fires, powered armor, and camouflage technologies to reconceptualize information collection in a multi-domain context with correspondingly miniaturized signatures and increased lethality.

Despite these aspirations, immediate solutions to the Army’s R&S capabilities gap must be grounded in reality. This means accepting limitations that likely include no organic manned aviation in ground cavalry formations due to force-wide constraints, continued reliance on heavy armored platforms for forceful reconnaissance, logistical constraints in ability to operate deep and independently for extended durations, and most importantly, requirements for any reorganization to be relatively cost-neutral to the Army’s overall force structure. However, within these parameters, and if the institution is willing to embrace twenty-first-century innovation, there remains promising possibilities



M113 personnel carriers from E Troop, 2nd Battalion, 11th Armored Cavalry Regiment, conduct operations against North Vietnamese forces May 1970 in Kampong Cham Province, Cambodia. (Photo courtesy of Dave R. Watters, http://www.11thcavnam.com/Photos/Dave%20Watters/Dave_Watters.htm)

for re-creating a dynamic cavalry architecture to support all Army tactical echelons.

Options for R&S Solutions

Four relatively cost-neutral options for addressing the Army's R&S capabilities gap follow.

Maintain the R&S BCT initiative. This doctrinal concept, which emerged as a stopgap measure to account for the loss of ACRs, DIVCAVs, and ill-fated battlefield surveillance brigades, represents the Army's current method for enabling corps and division maneuver. According to Army Techniques Publication 3-91, *Division Operations*, a BCT is "tailored with additional assets to give it increased capabilities for information collection and sustainment" while benefiting from "a training relationship with units that have the capabilities of fire support, short-range air defense, engineers, and extended range UAS [unmanned aircraft systems]."¹⁰ Although 1st Stryker BCT, 4th Infantry Division, ably tested the concept in 2017, the experience revealed challenges in rapidly adapting standard brigades to the complicated methodologies of reconnaissance-in-force and guard missions.

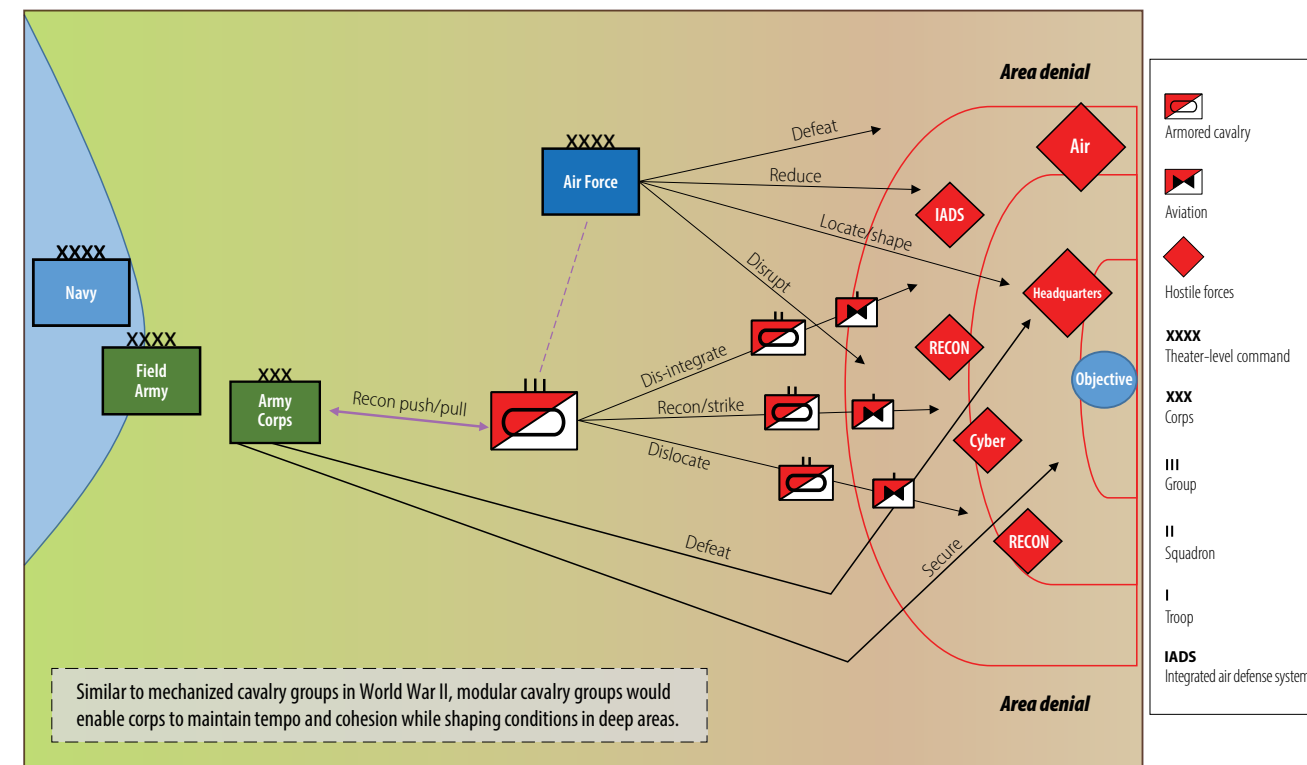
The R&S BCT initiative, despite withering criticism, nevertheless holds unrealized value for the Army as an expedient solution. It first acknowledges resource constraints on creating new units while retaining a pool of generalized armored, Stryker, and infantry BCTs for employment across a larger spectrum of contingencies that may not require forceful information collection at echelon. It also leverages time-tested doctrine and institutional

experience to empower select brigades to execute cavalry missions when provided multiyear training and augmentation programs. If executed as doctrinally intended, each corps maintains one brigade that is "organized and trained" as an R&S BCT for immediate employment on behalf of Army or joint force commanders.¹¹

Despite these prescriptions, the ad hoc solution has proved inadequate. While the excursion in 2014 demonstrated that standard BCTs require enormous lead time, training, augmentation, and integration to effectively fulfill the role, none of the Army's corps have maintained a rotation of assigned and trained R&S BCTs.¹² Furthermore, there is serious debate over whether the complexity of executing echeloned route, zone, and area reconnaissance, in addition to contested screen, cover, and guard tasks, can be fully mastered by soldiers and formations who are not permanently optimized for that mission. This leads to larger questions about the R&S BCT's realistic ability to enable timely and decisive decisions by senior tactical commanders in strongly contested environments.

Reorganize BCT squadrons into ACRs, DIVCAVs, and brigade reconnaissance troops (BRTs). This option would reflect a total reorganization of the entire BCT cavalry force to empower corps and divisions to proactively

M1A1 Abrams main battle tanks of the 3rd Armored Division move out on a mission 15 February 1991 during Operation Desert Storm. A Bradley Fighting Vehicle can be seen in the background. (Photo by Photographer's Mate Chief Petty Officer D. W. Holmes II, U.S. Navy)



(Figure by author)

Figure 1. Modular Cavalry Group

shape "deep fights" against peer threats. The recreation of modernized versions of legacy ACRs and DIVCAVs, similar to Army of Excellence reforms that echeloned scouts specifically to fight Warsaw Pact armies in Europe in the 1980s, would shift the preponderance of Army R&S ground forces to higher tactical levels.¹³ Mirroring evolutions in the 1990s that built on late Cold War echelonment, this design would leave each BCT with a BRT and each maneuver battalion with a current scout platoon to enable success in close combat.¹⁴

This type of dramatic reorganization would prioritize the increasing importance for corps and divisions to decisively and rapidly disintegrate sophisticated area-denial defenses as a prerequisite for follow-on BCT success. Similar to the scouts who enabled corps and divisions in Operation Desert Storm, modernized ACRs and DIVCAVs would conduct reconnaissance, counterreconnaissance, guard, and cover missions across expansive depths and frontages while, in theory, reducing BCT requirements for forceful information collection. Furthermore, the revitalized cavalry echelonment would leverage advanced cross-domain cooperation to allow more effective neutralization of enemy

reconnaissance-strike networks that currently threaten to stymie expeditionary air and ground maneuver.

Despite the clear benefit to senior commanders, reducing each BCT's current cavalry complement from a full squadron to a single troop would come with an obvious cost: limited ability to execute forceful, rapid, and broad information collection at the brigade level. While the recent addition of a third maneuver battalion in each BCT could partially compensate, the issue may become acute when they operate along wide frontages or lengthy corridors that could stress DIVCAV capacity to shape future conditions. The reconfiguration would essentially require corps and divisions to employ tailored battlefield frameworks, as they did under AirLand Battle doctrine, where forward ACRs and DIVCAVs converge multi-domain effects to both dominate deep areas and mitigate BCT limitations.¹⁵

Reorganize select BCTs into modular cavalry groups. A third option, which would require less force-wide reorganization, would be to convert two or three BCTs into redesigned cavalry groups with modular cavalry squadrons (see figure). Similar to the MCG of World War II, this approach could employ a flexible "pooling" concept where groups either enable



corps-level maneuver as consolidated R&S commands or potentially detach self-contained ground squadrons to support specific division operations. Building on past success, modernized cavalry groups would enjoy independent ability to conduct forceful reconnaissance, counterreconnaissance, and flank security actions with cross-domain lethality on behalf of habitually aligned corps and temporarily partnered divisions.¹⁶

This reorganization would yield many advantages once provided by the ACR/DIVCAV/BRT echelonment without incurring the worst of the costs. While a modular concept could simultaneously address the R&S capabilities gap currently afflicting both corps and divisions, it would also allow BCTs to retain their organic cavalry squadrons to enable close maneuver. By combining echelonment, the economy of design, and optionality to align both form and function, the cross-domain approach would orient the Army's tactical order of battle—from battalion to corps—toward winning contests of breadth and depth. It would also reflect a marginal shift in combat power from the main body to forward reconnaissance-strike capacity with a greater focus on fighting deep to enable sustained tempo.

However, like all resource decisions, converting select BCTs into corps-controlled cavalry groups would bring disadvantages. The most obvious drawback would be a minor reduction in the Army's overall complement of general purpose combat brigades, which are more easily adapted to a wider range of contingency operations. A second, though more manageable, issue would be potential unfamiliarity between detached cavalry squadrons and temporarily aligned divisions when coupled for operations with reduced notice. Although the groups would probably require fewer personnel than BCTs (due to replacement of most infantry companies with cavalry troops), the reorganization would likewise incur reduced ability to fight in complex terrain without significant augmentation.

Reorganize select BCTs into reconnaissance-strike task forces. A final option would be to adopt a more aspirational and forward-thinking approach to creating technologically advanced, multi-domain formations designed to survive, fight, and win in combat environments of the future. This concept would field cavalry-based teams with marginally less emphasis on heavy armor and premium ability to operate dispersed, in depth, and with greater access in joint and coalition fires.¹⁷ Similar to the emerging Multi-Domain Task Force initiative, reconnaissance-strike task forces would represent an innovative solution for

leveraging emerging technologies across all U.S. military services and operational domains.¹⁸ The potential result would be a combined arms team specifically designed to dislocate and disintegrate enemy networks with unprecedented responsiveness and operational reach.

Building on the versatility and agility of the MCG option, an advanced reconnaissance-strike concept would employ a decentralized and modular unit structure to enable joint task force efforts. Designed to operate in deep areas for greater durations with fewer logistical constraints, the formation could combine armored, light, and aerial scouts with robust inclusion of cyber, space, air, maritime, robotics, artificial intelligence, special operations, and informational specialists to allow the maximum application of cross-domain effects.¹⁹ More importantly, the experiment would provide a “blank slate” to create a ground-based R&S unit that is purpose-built to serve as the nucleus of a joint forces penetration team while fighting for information across multiple domains simultaneously.

Despite its attractiveness, this kind of futures concept would incur risk by planning an unprecedented formation based on emerging and predicted technologies. Reliance on more maneuverable platforms with reduced logistical constraints—that is, trading degrees of protection for enhanced mobility—could also incur tactical risk during contested reconnaissance operations. In terms of firepower, overreliance on joint fires and electronic warfare could invite disadvantages during counterreconnaissance actions. Yet despite potential challenges, trends in technology and warfare may nevertheless empower, and indeed compel, miniaturized and dispersed lethality. At the very least, the task force may serve as a modernization objective for adapting traditional ground forces to multi-domain operations.

Toward Fighting Forward

The U.S. Army has, as noted in *The U.S. Army Concept for Multi-Domain Combined Arms Operations at Echelons Above Brigade 2025-2045*, a “perpetual requirement to gain and maintain contact throughout all domains” while “preventing an adversary or enemy from gaining positions of advantage.”²⁰ This means addressing critical R&S gaps that threaten success in large-scale ground combat. While the Army could redouble efforts to improve its current R&S BCT concept, it could also reimagine the legacy ACR/DIVCAV/BRT structure or convert select BCTs or reconnaissance-strike forces into flexible cavalry groups.



Either way, the Army should take action to create echeloned units—with cross-domain fires in direct support—that are optimized to provide freedom of action and enable tempo across competitive landscapes.

This imperative finds expanded relevance in how the Army contributes to joint and multinational campaigns. Field Manual 3-0, *Operations*, states that the “rapid application of joint combat power may be required to enter a theater (through joint forcible entry) or to delay, impede, or halt an enemy's initial aggression and to deny an enemy its initial objectives.”²¹ This means that even as joint task forces continuously extend battlefield geometry with multi-domain effects, they need combined arms ground teams capable of fighting to gain information in increasingly expansive deep areas. Cavalry formations, if empowered with robust and practiced cross-domain capabilities, remain ideal instruments for extending ground-based operational reach to support joint campaigns of larger scope and scale.

Army R&S forces also make important tactical contributions to coalition efforts. While many NATO and bilateral allies maintain general-purpose combat brigades, very few field combined arms teams optimized to execute forceful reconnaissance and counterreconnaissance

Soldiers of the 2nd Battalion, 11th Armored Cavalry Regiment, supported by a Bradley Fighting Vehicle, cautiously advance into a bunker area 26 March 2005 during a raid on the Hateen Weapons Complex in Babil, Iraq. (Photo courtesy of the Department of Defense)

at higher tactical levels.²² This means that R&S BCTs or equivalent cavalry formations will remain a critical addition to large multinational operations that feature contested information collection at depth. In regions like East Europe, the Persian Gulf, and East Asia, where corps and divisions may have to operate across expansive contiguous and noncontiguous terrain, the coalition demand for combined arms scouts at echelon and the Army's contrasting deficiency is becoming increasingly problematic.

These considerations move beyond operational considerations and into enduring requirements to maintain institutional knowledge. The loss of ACRs and DIVCAVs, in addition to decades of counterinsurgency focus and lapses in the R&S BCT initiative, means that the Army is rapidly losing its organizational base of experience for executing R&S at expanded scale and complexity.²³ While cavalry squadrons in BCTs have retained—and

improved—tactical expertise in enabling close maneuver in recent years, their absence at corps and division levels is risking the Army's ability to aggressively shape conditions along deeper axes and wider frontages against peer adversaries in Persian Gulf War-sized conflicts.

Given the scope of the problem, potential answers to the Army's R&S shortfalls must evolve in the context of integrated doctrinal, material, and cultural solutions. Similar to how it combined Army of Excellence reforms that fielded modernized combat platforms, expanded air-ground teaming, and redesigned ACR/DIVCAV echelonment with emerging AirLand Battle concepts, forthcoming solutions must be equally forward-thinking and comprehensive.²⁴ With its emerging multi-domain operational concept, the Army now has another opportunity to modernize a purpose-built order of battle that

combines new technologies, echeloned formations, and flexible doctrine to enable success across extended battlefields of time and space.

The Army's R&S dilemma ultimately reflects an enduring requirement to bridge forceful information collection across the tactical and operational levels of war. Recognizing the increasing importance for corps and divisions to proactively influence outcomes in deep areas early and decisively, the availability of dedicated and echeloned cavalry formations with cross-domain enablers will, in part, inform the Army's preparedness to penetrate, disintegrate, and dislocate sophisticated adversary defenses. If past conflicts reveal the importance of fighting forward with combined-arms teams, the battlefields of the future will surely require the same, and the absence of dedicated solutions to pressing capabilities gaps may exact a heavy price. ■

Notes

1. "Milley: Army Not Fully Ready for Large-Scale Combat," Association of the United States Army, 7 April 2016, accessed 3 July 2019, <https://www.ausa.org/news/milley-army-not-fully-ready-large-scale-combat>.
2. David Barno and Nora Bensahel, *The Future of the Army: Today, Tomorrow, and the Day after Tomorrow* (Washington, DC: Atlantic Council, September 2016), 11.
3. Field Manual (FM) 17-95, *Cavalry Operations* (Washington, DC: Government Printing Office, 24 December 1996 [obsolete]), 1-5; William S. Nance, "Lost Sabers: Why We Need Operational Cavalry and How to Get It Back," *eARMOR* 123, no. 4 (October-December 2014): 51-55.
4. Robert S. Cameron, *To Fight or Not to Fight? Organizational and Doctrinal Trends in Mounted Maneuver Reconnaissance from the Interwar Years to Operation Iraqi Freedom* (Fort Leavenworth, KS: Combat Studies Institute Press, 2010), 316-17.
5. James A. Bynum, *Operation Desert Shield/Storm After Action Report* (Fort Belvoir, VA: U.S. Army Research Institute for the Behavioral and Social Science, 27 June 1991), slide 3FX39.
6. Cameron, *To Fight or Not to Fight?*, 71.
7. Donn A. Starry, *Mounted Combat in Vietnam* (1978; repr., Washington, DC: U.S. Government Printing Office, 2002), 73, accessed 12 July 2019, https://history.army.mil/html/books/090/90-17-1/CMH_Pub_90-17-1.pdf.
8. Cameron, *To Fight or Not to Fight?*, 293.
9. Nathan Jennings et al., "The Return of Cavalry: A Multi-Domain Battle Study," *eARMOR* 128, no. 3 (Summer 2017): 18-22.
10. Army Techniques Publication 3-91, *Division Operations* (Washington, DC: U.S. Government Printing Office, October 2014), 1-9.
11. *Ibid.*, 1-8.
12. Curt Taylor and Joe Byerly, "Raider Brigade White Paper—Fighting for Information in a Complex World: Lessons from the

13. John L. Romjue, *The Army of Excellence: The Development of the 1980s Army*, TRADOC Historical Monograph Series (Washington, DC: U.S. Army Center of Military History, 1997), 94-95.
14. FM 17-95, *Cavalry Operations*, 1-10, 1-18-1-21.
15. Rumjue, *The Army of Excellence*, 11, 94-95.
16. Joseph J. Dumas, "Modern Application of Mechanized-Cavalry Groups for Cavalry Echelons above Brigade," *eARMOR* 131, no. 3 (Fall 2018): 3-4.
17. Douglas A. Macgregor, *Breaking the Phalanx: A New Design for Landpower in the 21st Century* (Westport, CT: Praeger, 1997), 79-81.
18. Sydney J. Freedberg Jr., "New Army Unit to Test Tactics: Meet the Multi-Domain Task Force," *Breaking Defense*, 21 March 2017, accessed 5 July 2019, <https://breakingdefense.com/2017/03/new-army-unit-to-test-tactics-meet-the-multi-domain-task-force/>.
19. Jennings et al., "The Return of Cavalry," 18-22.
20. *The U.S. Army Concept for Multi-Domain Combined Arms Operations at Echelons above Brigade 2025-2045: Versatile, Agile, and Lethal*, version 1.0 (Washington, DC: U.S. Government Publishing Office [GPO], September 2018), 14, accessed 5 July 2019, <https://usacac.army.mil/sites/default/files/documents/ArmyEABConcept.pdf>.
21. FM 3-0, *Operations* (Washington, DC: U.S. GPO, 6 October 2017), 1-13.
22. Daniel Gouré, *Addressing NATO's Near-Term Capability Gaps* (Arlington, VA: Lexington Institute, June 2018), 8-9, 11.
23. Taylor and Byerly, "Raider Brigade White Paper—Fighting for Information," 17.
24. Rumjue, *The Army of Excellence*, 39-40, 85-89.