The Division's Fight for Information: Ground Reconnaissance in a Mechanized World

A Monograph

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Abstract

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For the past several years, the US Army's proficiency in counterinsurgency operations expanded, arguably at the expense of other competencies. As the Army transitions back towards division-level operations, the need for timely and accurate information provided by reconnaissance and security assets will be greater than ever. While the division commander has numerous dedicated aviation assets at his disposal, noticeably absent in the current organizational structure is a dedicated ground element. Unlike its aviation counterpart, a ground reconnaissance unit can occupy terrain, a capability that is vital for a commander's ability to exploit battlefield opportunities. The experiences of the 82d ARB in World War II and 1-4 CAV in Desert Storm illustrate the necessity of a ground reconnaissance force. By emphasizing reconnaissance and security training and education in the division's subordinate units, the commander has options in the absence of a dedicated element.

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Acronyms

ABCT	Armored Brigade Combat Team
ACR	Armored Cavalry Regiment
AD	Armored Division
ADP	Army Doctrine Publication
ARB	Armored Reconnaissance Battalion
ATP	Army Training Publication
BCT	Brigade Combat Team
BFV	Bradley Fighting Vehicle
CAB	Combat Aviation Battalion
CAV	Cavalry
CFV	Cavalry Fighting Vehicle
FM	Field Manual
IBCT	Infantry Brigade Combat Team
ID	Infantry Division
MCTP	Mission Command Training Program
METL	Mission Essential Task List
TRADOC	Training and Doctrine Command
UAS	Unmanned Aerial Surveillance

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Introduction

The morning was cold and wet, with the stench of death heavy in the air. The post-battle carnage was not unusual: smoke rising to the heavens, demolished buildings, and corpses scattered on the ground. For the victorious, soon movement would begin again. Moreover, at the highest level of command, the joy of victory proved short-lived. Like many decisions in the conduct of war, the next movement had profound ramifications for an army. The commander, having missed much of the battle, understood the challenge before him. While his army's victory afforded him a temporary calm, the terrain before him was not advantageous. The burning village stood at the edge of a river, and the road leading out of town climbed an embankment that afforded an attacker cover and concealment during an advance. Committing too many forces across the small bridge risked isolation, especially with the reports of enemy positions on the opposite side of the embankment. The leader understood where he wanted to go, yet did not have a clear picture of what lay ahead for his army. On this morning, he rode out with a small escort to gain situational understanding. The morning's stillness was shattered as the leader and his escort came under fire, ambushed by a small patrol. The encounter was brief but fateful. For the first time in decades of war, the commander barely escaped capture, if not death. Shaken, he returned to his army, his reconnaissance effort a failure. Convinced the way forward was not passable, Napoleon Bonaparte gave the order to return to France along the same route his Grand Armee set out on six months earlier. This decision would, in effect, doom the Grand Armee. Of the estimated 680,000 soldiers that participated in Napoleon's Russia campaign in 1812, fewer than a sixth would see France again. What Napoleon did not know was that the small element that ambushed him was all that stood between his army and a southern route that offered supplies to his army.[1]

[1] Richard K. Riehn, *1812: Napoleon's Russian Campaign* (New York: Wiley, 1991), 330–333.

Napoleon is remembered as arguably one of the greatest military commanders to ever live. His battlefield tactics were revolutionary for the day and became a model for future armies around the world. Nevertheless, his failure to conduct reconnaissance in a manner that shaped his approach while at the small village of Maloyaroslavets is puzzling. F. Quinn notes that the encounter with the Cossacks may have shaken Napoleon's confidence and resolve.[2] In any event, Napoleon did not send a large force to fight for information and, as such, based his follow-on decisions off of the only minimal information he had.

Commanders make decisions and accept the appropriate level of risk involved in each mission. Napoleon, for his part, understood risk, often gambling on seemingly impossible engagements that yielded impressive results.[3] Commanders today are no different, constantly balancing risk versus reward. The division commander in the modern US Army commands thousands of soldiers, a hefty responsibility. The American soldier is the army's most precious resource; the decisions made by a commander has an unavoidable impact on that resource. The commander makes his decisions for the good of the mission and accepts prudent risk through his decision-making process.[4] In order to make the right decisions, the commander must weigh all the available options. However, to understand his options, he must understand both the enemy and the terrain. As Prussian war theorist Carl von Clausewitz noted, "I am not in control: he dictates to me as much as I dictate to him."[5] Modern doctrine mandates that a commander and his

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[2] F. Quinn, "Not Waterloo: This Was the Moment Napoleon Met His Match," *The National Interest,* August 11, 2018, accessed January 7, 2018, https://nationalinterest.org/blog/buzz/not-waterloo-was-moment-napoleon-met-his-match-28447.

[3] Geoffrey Wawro, "Foreword," in *Napoleon and the Operational Art of War: Essays in Honor of Donald D. Horward*, ed. Michael Leggiere (Leiden: Brill, 2016), ix.

[4] US Department of the Army, *Army Doctrine Publication (ADP) 6-0, Mission Command* (Washington, DC: Government Printing Office, 2012), 5.

[5] Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 77.

staff use the "operations process" during planning and execution in order to integrate the various tasks and enablers into the plan.[6] The commander drives the process by understanding the problem, visualizing a solution, describing his vision for execution, and directing the execution. He leads the process while assessing the effectiveness of the plan. Reconnaissance allows the commander to better understand the problem.

The battlefields of today and tomorrow are complex. As Napoleon fought on several fronts in both regular and irregular conflicts with multiple domains to consider, the commanders of today must deal with the same and more. The Army's operations manual, Field Manual (FM) 3-0, conceptualizes the "conflict continuum," which describes the scale from peace to war.[7] At the most extreme end of one side of the scale are large-scale combat operations, defined as "major operations and campaigns aimed at defeating an enemy's armed forces and military capabilities in support of national objectives."[8] Large-scale combat operations consist of offensive, defensive, and stability tasks conducted simultaneously or independently. Tactical enabling tasks such as reconnaissance and security operations supplement the primary tasks. All tactical enabling tasks are employed to shape the battlefield and support the primary task.[9]

Division commanders do not have an organic reconnaissance and security asset at their disposal in today's army.[10] As such, they must rely on other means to collect ground intelligence

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[6] US Department of the Army, *Army Doctrine Publication (ADP) 5-0, The Operations Process* (Washington, DC: Government Printing Office, 2012), 2.

[7] US Department of the Army, *Field Manual (FM) 3-0, Operations* (Washington, DC: Government Printing Office, 2017), 1–1.

[8] Ibid.

[9] Ibid., 5–9.

[10] US Department of the Army, *Army Techniques Publication (ATP) 3-91, Division Operations* (Washington, DC: Government Printing Office, 2012), 8–5.

to inform and shape their decisions. The doctrinal manual that provides an overview for division operations, Army Training Publication (ATP) 3-91, *Division Operations*, states that the division commander may request ground reconnaissance and security assets from the next higher headquarters, the corps, or task one of the brigade combat teams (BCT) to conduct the necessary operations.[11] Of the options presented by ATP 3-91, none come without a level of risk and cost.

The division commander should plan to conduct reconnaissance and security operations with his internal resources since he competes with adjacent units for assets from higher. The first option recommended by ATP 3-91 is to task one of the subordinate BCTs. This option requires that the BCT be trained and certified on reconnaissance and security tasks. It also requires the commander to assume risk by either removing a maneuver unit from his offensive or defensive scheme of maneuver or by giving them a follow-on task after the reconnaissance or security mission. The second option presented by ATP 3-91 is to rely on aviation assets for the reconnaissance or security mission. The division commander has as part of his organization the Combat Aviation Brigade (CAB), which includes both an attack reconnaissance squadron (ARS) and an unmanned aerial surveillance system (UAS) known as the "Grey Eagle." As with any aviation asset, the systems' ability to fly depends on, among other things, the weather. Additionally, aviation systems are not able to fly low enough to give the commander a precise on-the-ground picture of the situation. These limitations may require the commander to seek other options for reconnaissance and security operations.

In the absence of a dedicated reconnaissance unit, division commanders across the army are experimenting with various ideas regarding the employment of ground reconnaissance and security assets. The Mission Command Training Program provides divisions the opportunity to test options in "warfighter" exercises, but to date, there is not a universal solution. Issues such as

[11] US Army, *ATP 3-91* (2012), 8–5.

command relationships and sustainment issues arise based on the method the commander chooses to execute. Regardless of the solution, one thing is clear: division commanders will likely need ground reconnaissance and security assets to inform their decisions in large-scale combat operations.

This monograph provides case studies of how commanders of combined arms divisions in both World War II and the Gulf War employed their ground reconnaissance and security assets. Both conflicts resemble the complex challenges commanders face in large-scale combat operations, as defined by the 2017 FM 3-0, *Operations*. Doctrine and organization serve as the evaluation criteria for the units discussed, as those items evolve with the changing environment. Tenets such as logistics and fire support, as part of the mission organization, will receive minimal attention. Finally, in comparing the use of reconnaissance and security assets in both vignettes to recent examples from the Mission Command Training Program, this monograph then offers suggestions for employing ground reconnaissance assets in the current operational environment.

Reconnaissance and Security Doctrine Today

The concepts of reconnaissance and security operations are not new. The first US Army *Field Service Regulations*, published in 1905, discussed the employment of reconnaissance in several places, highlighting the relationship of the mission to the cavalry.[12] For hundreds of years, the cavalry consisted horsemen, mounted soldiers who moved with speed, mobility, and decisiveness on the battlefield. Alexander the Great used the cavalry as an exploitation force that would strike at the opportune moment.[13] Napoleon himself utilized his cavalry in this manner as

[12] General Staff, U.S. Army, *Field Service Regulations* (Washington, DC: Government Printing Office, 1905), 39.

[13] Roman Jarymowycz, *Cavalry From Hoof to Track* (Westport, CT: Praeger Security International, 2008), 16.

well, notably winning the Battle of Borodino in 1812 with a cavalry attack.[14] Because of the speed and mobility afforded by the cavalry, they were the prime options to move forward and gain situational awareness of enemy intent, locations, and dispositions. A great example is Brigadier General Zachary Taylor's use of cavalry to confirm rumors of General Santa Ana's approach preceding the Battle of Buena Vista in 1847 as part of the Mexican-American War.[15]

The usage of the horse cavalry continued all the way into World War II. The horse cavalry unit was, for all intents and purposes, mounted infantrymen and required little regarding sustainment outside of food and water. Cavalry units today are vehicular. From the light armored trucks used in the Infantry Brigade Combat Teams (IBCT) to the M2A1 "Abrams" tanks assigned to the Armored Brigade Combat Teams (ABCT), cavalry squadrons can cover great distances and are limited only by restricted terrain and fuel.

FM 3-0 identifies reconnaissance and security operations as tactical enabling tasks.[16] Commanders assign reconnaissance tasks to gather information about the enemy or terrain to inform his understanding of the problem.[17] FM 3-0 further notes that reconnaissance relies more on human beings rather than technical options. This reliance implies the use of ground elements. At the division level, reconnaissance tasks are primarily route, zone, area, and reconnaissance in force. A reconnaissance in force mission is generally reserved for battalion-sized or larger elements, while smaller formation may execute the other tasks.[18] Security tasks are operations

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[14] Jarymowycz, *Cavalry From Hoof to Track*, 83.

[15] Peter Guardino, *The Dead March: A History of the Mexican-American War* (Cambridge, MA: Harvard University Press, 2017), 147.

[16] US Army, *FM 3-0* (2017), 5–9.

[17] Ibid., 5–10.

[18] Ibid., 5–11.

that provide early warning of enemy attacks and provide the commander with time and space to react.[19] While similar to reconnaissance, security operations focus on the friendly force while reconnaissance operations focus on the enemy and the terrain. Some security tasks require the executing unit to engage the enemy either by artillery fire or by attacking them directly. As such, the commander takes care to provide the assigned force with enough resources to execute the task.

Division operations manuals such as ATP 3-91, note that an operation's success requires reconnaissance and security operations.[20] FM 3-94, published in 2014, further notes that in operations such as a movement to contact, the enemy's location may be concealed in dense terrain, requiring human intelligence provided by ground reconnaissance to locate him.[21] Division commanders adhere to the reconnaissance fundamentals of ensuring continuous reconnaissance, not keeping assets in reserve, orienting on the objective, retaining freedom of movement, gaining and maintaining enemy contact, and developing and reporting the situation accurately and rapidly during planning.[22] Similarly, when planning security operations, doctrine outlines the fundamentals such as providing the early and accurate warning of enemy movement, providing reaction time and maneuver space, orienting on the force or facility to be secured, performing continuous reconnaissance, and maintaining enemy contact.

Ground reconnaissance units provide the division commander with options. First, ground reconnaissance elements can lead the main maneuver force to an enemy's vulnerable point on the

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[19] US Army, *FM 3-0* (2017), 5–13.

[20] US Army, *ATP 3-91* (2012), 8–1.

[21] US Department of the Army, *Field Manual (FM) 3-94, Theater Army, Corps, and Division Operations* (Washington, DC: Government Printing Office, 2014), 7–11.

[22] US Department of the Army, *Field Manual (FM) 3-98, Reconnaissance and Security Operations* (Washington, DC: Government Printing Office, 2015), 5–1.

ground.[23] Second, they can develop the situation even when in contact with the enemy. Finally, they provide the commander with the ability to understand the situation in any terrain, regardless of environmental conditions. As such, doctrine mandates that all units can and should conduct ground reconnaissance.[24]

Reconnaissance and security operations are not reserved solely for cavalry units in modern doctrine. While cavalry units are assigned reconnaissance and security tasks as part of their mission essential task list, or METL, infantry and armor maneuver units train those tasks, though to a lesser extent.[25] Considering this flexibility, the size of the organization the division employs (historically) for the reconnaissance and security task mission matters.

Today's Divisional Organization

The current division includes a vast assortment of combat power and capabilities. The combat power of a contemporary combined arms division consists of a blend of tank and mechanized infantry battalions organized into the ABCT.[26] A division commander may be responsible for two to five brigades in addition to a mission-specific set of multifunctional brigades (see Figure 1).[27] Divisions such as the 1st Infantry Division and 3rd Infantry Division use a basic format that consists of two ABCTs with supporting elements. Armored-based

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[23] US Army, *ATP 3-91* (2012), 8–3.

[24] Ibid., 8–3.

[25] US Army Armor School, *The United States Army Armor Training and Leader Development Strategy 2017 -2018*, 2017, 53.

[26] Headquarters, Department of the Army G3/5/7, "Armored Brigade Combat Team," *www.army.mil*, last modified December 1, 2016, accessed November 21, 2018, http://www.army.mil/standto/2016-12-01.

[27] US Army, *ATP 3-91* (2012), 1–2.

divisions, such as the 1st Cavalry Division, have three ABCTs. The 1st Armor Division expects to finalize the transition to three ABCTs in 2019.[28]

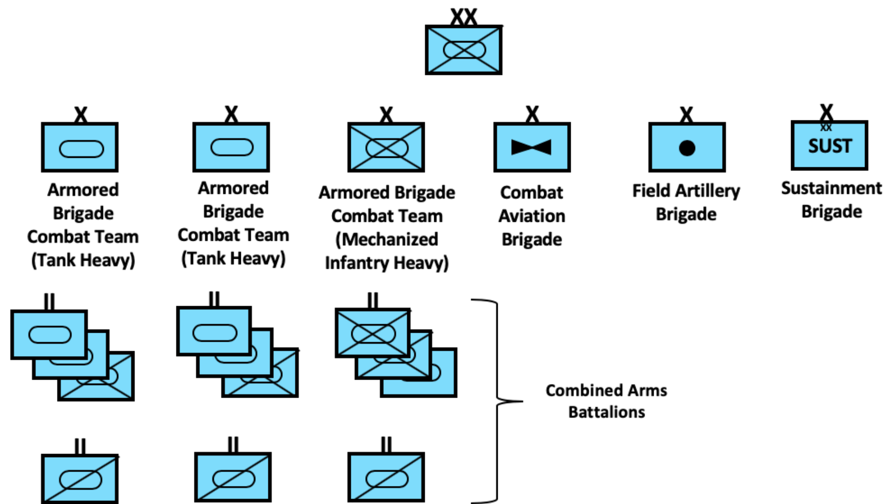

Figure 1: A Generic Division. Created by author.

The standard ABCT includes three combined arms maneuver battalions, one reconnaissance squadron, an artillery battalion, an engineer battalion, and a support battalion, which sustains the entire brigade (Figure 2).[29] Each maneuver battalion has three companies, each comprised of platoons with mixtures of Abrams tanks and Bradley Fighting Vehicles (BFV). Tanks serve as the backbone of the units' firepower, while the BFV serves as a mobile transport

[28] 1st Armored Division Public Affairs Office, "Fort Bliss-Based 1st Stryker Brigade Combat Team to Be Converted to an Armored Brigade," Army.mil, last modified September 20, 2018, accessed October 5, 2018, https://www.army.mil/article/211405/fort_bliss_based_1st_stryker_brigade_combat_team_to_be_converted_to_an_armored_brigade.

[29] HQDA G3/5/7, "Armored Brigade Combat Team."

vehicle for infantry squads to get to the battlefield. The Bradley has several variations. Cavalry units field a variant equipped with surveillance equipment specialized for cavalry units.[30]

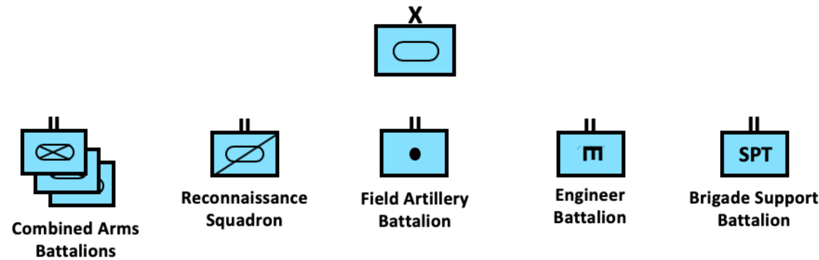

Figure 2: The Modern ABCT. Created by author.

The standard reconnaissance squadron consists of three ground troops with Bradley fighting vehicles and an armor company (Figure 3).[31] This unit is typically supported logistically by a Forward Support Company from the parent brigade's Brigade Support Battalion. Logistics plays a major role in the squadron's operational reach as the addition of the forward support company allows for sustained operations to a point.

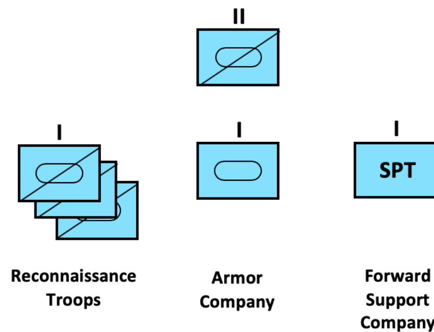

Figure 3: The Modern Cavalry Squadron. Created by author.

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[30] "M3 Bradley Armored Reconnaissance Vehicle," *Military Today*, accessed November 25, 2018, http://www.military-today.com/apc/m3_bradley.htm.

[31] US Department of the Army, *Army Techniques Publication (ATP) 3-20.96, Cavalry Squadron* (Washington, DC: Government Printing Office, 2016), 1–8.

Reconnaissance and security operations are invariably linked. Today's doctrine lists them together in the same manual, FM 3-98, *Reconnaissance and Security*.[32] In the absence of the dedicated division element, division commanders require a solution to accomplish reconnaissance and security tasks. Large-scale combat operations in historical battles demonstrate the general expectations of reconnaissance and security-focused units. The units examined in the following case studies conducted operations at a time when division cavalry units existed as part of the division organization. Examining these units will assist in understanding what the division commander expected of them. For example, what capabilities did the units provide that were unique? Did their mission remain in the reconnaissance and security realm, or did it expand?

Mechanized Reconnaissance in World War II

If Napoleon is considered a legend in his own right, then his American equals may include such names as Ulysses S. Grant and George. S. Patton, Jr. Each general lived in times of great unrest and went through their share of hardships. One of Patton's greatest challenges before World War II was training the US Army's first true armored unit, the 2nd Armored Division (AD).[33] General Jacob Devers, the commander of 6th Army Group, noted that Patton "knew more than any other American how to run, maintain, repair tanks, organize and train tank units, and employ them in combat."[34] Patton's training included a 600-mile road march and participation in

[32] US Army, *FM 3-98* (2015), 1.

[33] Steven Smith, *2nd Armored Division: "Hell on Wheels"* (Hersham, Surrey: Ian Allan Publishing, 2003), 6.

[34] James Scott Wheeler, *Jacob L. Devers: A General's Life* (Lexington, KY: University Press of Kentucky, 2015), 158.

the wargame exercises known as the Tennessee Maneuvers, the Louisiana Maneuvers, and the Carolina Maneuvers.[35] The maneuvers, planned by Lieutenant General Leslie McNair, was designed to test not only the doctrine of the day, but also the newly-formed armored divisions themselves.[36] It was during these training exercises that the 2nd AD received the nickname "Hell on Wheels" thanks to their dominance in the field against the opposition.[37] Throughout the maneuvers, Patton and his fellow commanders learned valuable lessons regarding the synchronization of infantry, armor, and reconnaissance.[38] While Patton left 2nd AD before taking it to combat, his training and preparation of the division improved its readiness and ability to conduct complex large operations. When war broke out in 1942, the 2nd AD entered the ring. Through the next three years, the 2nd AD would participate in some of the best-known operations of the war, including Operation Torch, Operation Husky, and Operation Cobra. An analysis of the 2nd AD's use of reconnaissance and security operations may inform contemporary division commanders about the use of ground reconnaissance assets.

World War II Reconnaissance and Security Doctrine

In 1944, the US Army's operations manual was FM 100-5, titled *Field Service Regulations, Operations*.[39] Given that the manual was published on June 15, 1944, a week after

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[35] Smith, *2nd Armored Division: "Hell on Wheels,"* 9-10.

[36] Mark T. Calhoun, *General Lesley J. McNair: Unsung Architect of the US Army* (Lawrence, KS: University Press of Kansas, 2015), 222.

[37] Smith, *2nd Armored Division: "Hell on Wheels,"* 10.

[38] Christopher Gabel, *The US Army GHQ Maneuvers of 1941* (Washington, DC: Center of Military History, 1992), 121.

[39] War Department, *Field Manual (FM) 100-5, Field Service Regulations, Operations* (Washington, DC: United States Government Printing Office, 1944), ii.

D-Day, it is difficult to determine the impact the new regulations had on operations in Europe. Most organizations trained and operated under the previous operations manual, FM 100-5, published in May of 1941. Cavalry units in armored formations additionally trained under the guidelines outlined in 1941's FM 2-10, *Cavalry Field Manual: Mechanized Elements*, and FM 2-15 *Cavalry Field Manual: Employment of Cavalry*, along with 1942's FM 17-10, *Armored Force Field Manual: Tactics and Techniques*.[40]

To grasp the evolution of pre-World War II doctrine, an understanding of the environment is necessary. Doctrine is by nature only as current as the publication date; as the environment changes, so do the tactics and procedures on the ground. Before World War II, discussions regarding replacing the horse regiments with tank formations were widely debated. Patton, then a colonel, was among those who supported the horse cavalry.[41] Patton once wrote that "under many circumstances horse cavalry and horse drawn artillery are more important than ever."[42] Both FM 2-10 and FM 2-15, published in 1941, discussed the use of horses in cavalry formations. In 1941, ground reconnaissance was the sole responsibility of those in the cavalry branch.[43] These elements operated with horses and light armored vehicles, but as more armored divisions were activated, the horse regiments disappeared. As the Army placed an increased emphasis on armored formations, it phased out the use of horses. In his autobiography, Brigadier General Albin Irzyk, a battalion commander in 4th AD during the war, observed that, in 1942,

[40] War Department, *Field Manual (FM) 100-5, Field Service Regulations, Operations* (Washington, DC: Government Printing Office, 1941), 41.

[41] George F. Hofmann, *Through Mobility We Conquer: The Mechanization of U.S. Cavalry* (Lexington, KY: The University Press of Kentucky, 2006), 89.

[42] Wheeler, *Jacob L. Devers: A General's Life*, 159.

[43] John J. McGrath, *Scouts Out! The Development of Reconnaissance Units in Modern Armies* (Fort Leavenworth, KS: Combat Studies Institute Press, 2008), 55.

"those in high places had recognized that there was no place for a horse regiment in the still-to-be war fought war in Europe."[44] McNair, for his part, deemed the horse cavalry "no longer viable" following the maneuvers of 1941. By 1942, the last of the horse cavalry vanished.[45]

Armored units going to war in 1942-44 used 1941's FM 100-5 and 1942's FM 17-10 to inform their training and preparation. The operations manual, FM 100-5, identified both aviation and ground assets as methods for reconnaissance. Aviation assets provided a greater depth of the situation, while ground assets were noted for their ability to maintain contact with the enemy under any conditions. The commander was directed to execute reconnaissance at the earliest available time to allow for the flow of information.[46]

FM 17-10 outlined the importance of reconnaissance elements, noting that the division commander should base his plans in a fluid environment on the situational understanding provided by reconnaissance.[47] The reconnaissance battalion existed to provide the required information to the commander and was prepared to fight for that information if needed. It was vital, however, for the reconnaissance battalion to avoid any combat actions that would require the division to commit assets to achieve success. Doctrine further indicates that when assigning missions other than reconnaissance to the dedicated battalion, the commander must balance the worth between the proposed mission and the potential loss of information.[48] When the updated

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[44] Albin F. Irzyk, *He Rode Up Front for Patton* (Raleigh, NC: Pentland Press, 1996), 9.

[45] Gabel, *The US Army GHQ Maneuvers of 1941*, 189.

[46] US Army, *FM 100-5* (1941), 44.

[47] War Department, *Field Manual (FM) 17-10, Armored Force Field Manual, Tactics and Technique* (Washington, DC: Government Printing Office, 1942), 277.

[48] Ibid., 279.

FM 100-5 was published following D-Day, little changed concerning the reconnaissance fight and the cavalry's role in it.[49]

The armored and mechanized cavalry’s handbooks for conducting operations in 1944 were FM 2-10 and FM 2-15. Both manuals reiterated guidance put forth in FM 100-5 and broke conduct of operations down to the platoon level. These manuals informed training and preparation for war. Before and during the war, the Cavalry School instructed soldiers on stealth operations.[50] Rather than engaging an enemy, the reconnaissance element was to bypass smaller groups and observe them to determine their movements. FM 2-15’s guidance to the reconnaissance detachment concerning actions on making conduct with the enemy was the source of this instruction.[51] Further, given the mechanized capability, the expectation was to cover great distances in a short period to provide timely information to the commander. This doctrinal guidance set the stage for the organization of reconnaissance battalions in World War II.

Armored Divisional Organization in World War II

In preparing for and going to war in 1942, reconnaissance units existed at all echelons. At the operational level, Army and Corps commanders had at their disposal “mechanized cavalry groups,” which became the largest reconnaissance organization fielded in World War II.[52] Their sole purpose was of a reconnaissance nature. As such, they were equipped with enough firepower to fight for information as required but not intended for direct combat missions. Studies

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[49] Matthew Morton, *Men on Iron Ponies: The Death and Rebirth of the Modern U.S. Cavalry* (DeKalb, IL: Northern Illinois University Press, 2009), 144.

[50] Hofmann, *Through Mobility We Conquer*, 301.

[51] War Department, *Field Manual (FM) 2-15, Cavalry Field Manual: Employment of Cavalry* (Washington, DC: Government Printing Office, 1941), 98.

[52] McGrath, *Scouts Out! The Development of Reconnaissance Units in Modern Armies*, 98.

conducted following the war found that, though designed for reconnaissance missions only, corps commanders typically assigned these brigade-sized elements defensive, special operations, and security missions.[53] Since the formation was not designed for those missions, augmentation was always required.

Divisions such as the 2nd AD were organized for war in 1942 with six tank battalions subordinate to two armor regiments, and three infantry battalions under an infantry regiment (Figure 4).[54] In addition to the regiments, the armored division included a battalion-sized division reconnaissance element with no less than 800 assigned soldiers.[55] According to doctrine, the division headquarters included two combat commands under the command of a brigadier general. These combat commands, referred to as Combat Command A and Combat Command B, existed in a tactical setting to assist in controlling groups during marches and combat.[56] The doctrinal groupings of the combat commands varied based on the situation; for example, FM 17-10 outlined options for advance marches, offensive actions, and withdrawals. The organization of these commands was based on the commander's discretion and could change based on the mission. The reconnaissance battalion operated as either a single unit under the division commander's control, or as individual companies assigned to the combat commands. Additionally, each division maintained a tank group with three tank battalions as a reserve.[57]

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[53] McGrath, *Scouts Out! The Development of Reconnaissance Units in Modern Armies*, 100.

[54] Mary Lee Stubbs and Stanley Conner, *Armor-Cavalry* (Washington, DC: Office of the Chief of Military History, 1969), 61.

[55] Jim Dan Hill et al., "The Organization of Ground Combat Troops," *The American Historical Review* 53, no. 3 (April 1948): 321.

[56] US Army, *FM 17-10* (1942), 311.

[57] Ibid., 361.

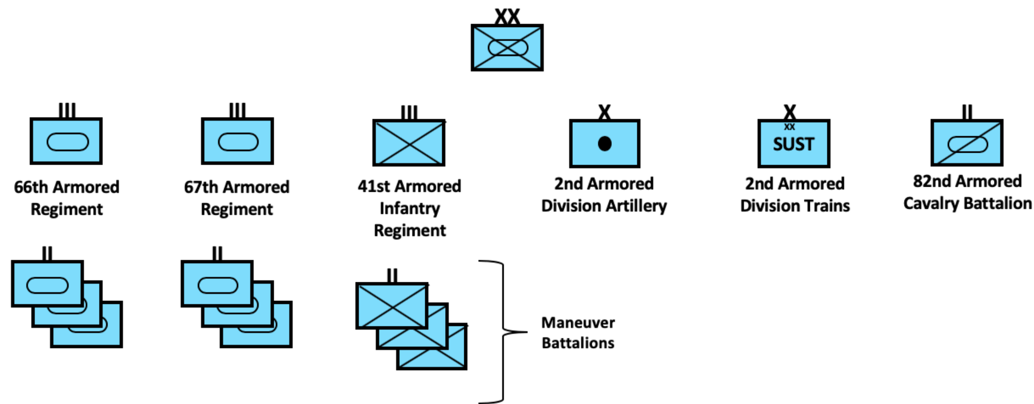

Figure 4: The 2nd AD in World War II. Created by author.

Following the Army's reorganization of the armored division in 1943, the reconnaissance battalion was renamed the "Cavalry Reconnaissance Squadron" in most divisions.[58] The 2nd and 3rd ADs, however, proved an exception and retained their pre-1943 structure throughout the war.[59] Though changes occurred, the organizational structure of the reconnaissance battalion remained similar in design.[60] As part of the 2nd AD, the 82d Armored Reconnaissance Battalion (ARB) retained the "battalion" designation. Assigned to the standard battalion were four reconnaissance troops, a 75-mm assault gun troop, and a light tank company (Figure 5). The battalion's equipment consisted of light tanks, armored cars, and jeeps.[61] Given the mobility and the indirect fire support provided by the 75-mm gun troop, the regular reconnaissance battalion in 1944 could conduct both reconnaissance and security missions for the division as necessary.

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[58] Morton, *Men on Iron Ponies: The Death and Rebirth of the Modern U.S. Cavalry*, 143.

[59] Ibid., 142.

[60] McGrath, *Scouts Out! The Development of Reconnaissance Units in Modern Armies*, 104.

[61] Ibid., 105.

Notable, however, is the explicit guidance in 1942's FM 17-10, *Armored Force Field Manual: Tactics and Technique*, that stated “under no circumstances will the reconnaissance battalion be considered a security detachment such as an advance guard of the division.”[62]

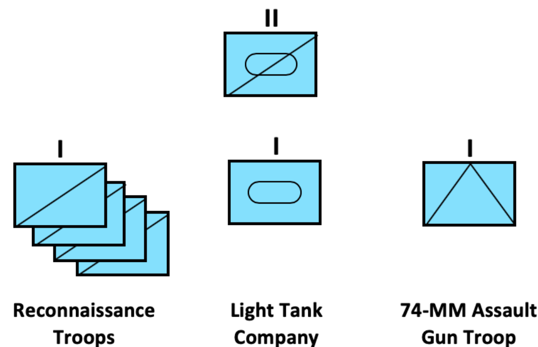

Figure 5: The Basic World War II Reconnaissance Squadron. The 82d ARB would look similar, but depending on the mission would include attachments or detachments. Created by author.

After the invasion of France took place in 1944, the Army classified armored divisions into two categories: “heavy” and “light.”[63] The light divisions, 13 in total, removed a tank regiment to balance the battalions with the infantry battalions. The heavy divisions, namely 2nd and 3rd AD, retained the 1942 structure.

Historical Narrative

The 2nd AD deployed to the European Theater of Operations under the 1942 organizational structure, which it retained throughout the war. By the time the division landed at Normandy, it had seen combat in Africa and Sicily. The reconnaissance battalion, the 82d ARB, was used in several capacities during combat, including offensive and defensive actions. During

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[62] US Army, *FM 17-10* (1942), 279.

[63] Stubbs and Conner, *Armor-Cavalry*, 62.

Operation Cobra, the breakout from Normandy, the 82d ARB served as a cohesive unit, tasked with not only reconnaissance and security missions, but with offensive and defensive tasks.

Operation Cobra took place seven weeks after the Normandy landings and involved multiple units. First Army, commanded by Lieutenant General Omar Bradley, was assigned the mission of creating the breakthrough to allow Patton's Third Army to exploit the gap. During this operation, 2nd AD was assigned to VII Corps, whose mission was to penetrate a portion of the enemy defensive line. The 2nd AD's mission was to exploit the breakthrough created by aerial bombing and artillery, covering the movement of its adjacent units.[64] To support this, the division commander, Major General Edward Brooks, required information on the enemy's strength. The mission of the 82d ARB was to conduct reconnaissance in zone, which according to 1942 doctrine meant to gain information about an enemy in an assigned area or responsibility.[65] Additionally, the unit protected the division's flanks and maintained contact with the adjacent units on the left and right.[66] Specifically, the 82d ARB's key tasks included identifying enemy disposition, composition, and movement; holding the line along the Sienne River; and liaising with 3rd AD. Because the battalion was not partitioned out to the Combat Commands, Lieutenant Colonel Wheeler G. Merriam, the battalion commander, had the freedom to choose the manner of execution to meet Major General Brook's information requirements.

A month following the Cobra breakout, 2nd AD moved to exploit the success of the previous operations. Per the division After Action Report, the month of August 1944 saw the

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[64] 82nd Armored Reconnaissance Battalion, *After Action Report: 82nd Armored Reconnaissance Battalion, June 44 Thru May 45* (n.p.:n.d.), 186. Hereafter cited as "After Action Report: 82nd Armored Reconnaissance Battalion." Available at US Army Ike Skelton Combined Arms Research Library Digital Library.

[65] US Army, *FM 100-5* (1941), 43.

[66] 82nd Armored Reconnaissance Battalion, *After Action Report: 82nd Armored Reconnaissance Battalion,* 183.

division task organized under VII Corps and XIX Corps at various points in time. These organizational changes did not affect how Major General Brooks aligned the 82d ARB, as it continued to operate as a cohesive unit under Lieutenant Colonel Merriam. The only exceptions were the occasional taskings to provide a company to a Combat Command or regiment on a temporary basis, such as the attachment of B Company to the 67th Armored Regiment during the period immediately following the breakout.[67] During that period, B Company performed the reconnaissance mission as would be expected.

August unfolded in three phases. Phase 1 was the Vire-Domfront offensive lasting from 1 to 15 August. Phase 2 included the Tourovre-Elbeuf offensive lasting from 20 to 26 August. Phase 3 comprised the Beauvais-Montdidier pursuit, lasting from 29 August to the end of the month.[68] Each phase entailed its unique information requirements and, in some cases, additional action by the reconnaissance unit.

During the first phase period, 2nd AD exploited the success of the breakthrough by destroying enemy elements around the towns of Vire and Domfront. Operating in German-held territory, Major General Brooks required information on potential avenues of approach and enemy locations. Early in the period, the 82d pushed forward to secure trafficable routes, making contact with the enemy in the process. On 7 August, the 82d ARB encountered enough resistance that it was forced to break contact and find another route for the advancing elements of the division.[69] A day later, the battalion conducted an area reconnaissance in advance of Combat

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[67] 82nd Armored Reconnaissance Battalion, *After Action Report: 82nd Armored Reconnaissance Battalion*, 161.

[68] VII Corps, *The History of the VII Corps, U.S. Army, Covering Operations in France, from 1-31 August, 1944* (n.p.:n.d.), Report 186-1. Hereafter cited as "The History of VII Corps." Available at US Army Ike Skelton Combined Arms Research Library, Ft. Leavenworth, Kansas.

[69] 82nd Armored Reconnaissance Battalion, *After Action Report: 82nd Armored Reconnaissance Battalion, June 44 Thru May 45*, 161. Available at US Army Ike Skelton Combined Arms Research Library, Ft. Leavenworth, Kansas.

Command B to support its attack on an enemy position.[70] In this instance, the reconnaissance element served as a covering force to allow the attack to proceed without additional interference. While information about the enemy may have been gathered during the operation, the mission was one of security, not an independent reconnaissance operation. During that night, the 82d ARB identified the enemy shifting positions, immediately giving Major General Brooks an opportunity to conduct a preemptive attack to counter a developing German counter offensive.[71]

On 10 August, the division moved into a temporary defensive position. To prevent a counterattack from the enemy, the 82d ARB moved to defend a position along the Varnne River, which included destroying bridges in the vicinity to prevent an enemy crossing.[72] The decision to move the 82d ARB into a defensive mission at this point stemmed from the fact that Combat Command A was attached to XIX Corps during this period, leaving 2nd AD short on combat forces. By destroying the bridges near 82d's position, the assumed risk was minimized. Further, Major General Brooks still maintained his ability to pull them from the location and return them to a reconnaissance role when required.

Given the shortage of forces, Major General Brooks opted to move the 82d ARB to a primary combat role on 11 August. Lieutenant Colonel Merriam, augmented with additional tank, infantry, and field artillery assets, received the mission to seize the town of Domfront.[73] The After-Action Report labeled the assignment a "reconnaissance in force" mission, though it

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[70] VII Corps, *The History of the VII Corps*, 186-4.

[71] Mark J. Reardon, *Victory at Mortain: Stopping Hitler's Panzer Counteroffensive* (Lawrence, KS: University Press of Kansas, 2003), 169.

[72] 82nd Armored Reconnaissance Battalion, *After Action Report: 82nd Armored Reconnaissance Battalion*, 161.

[73] Ibid.

entailed less information collection and more offensive action. Per the doctrine of the time, however, "reconnaissance in force" meant the conduct of a "local attack with a limited objective."[74] Before the action, 2nd AD moved under the control of XIX Corps, reuniting with Combat Command A, thus returning to full strength.

The period of 20 to 26 August witnessed the 2nd AD in an offensive advance that took them 95 miles.[75] The 82d ARB returned mostly to its reconnaissance and security mission, acting as a covering force for the two Combat Commands during assaults on enemy objectives. Additionally, the 82d ARB conducted unilateral patrols forward of the main lines to collect information, taking enemy prisoners along the way. The final mission of the phase given to the battalion was to move to the town of Bougtherouide in a reconnaissance drive.[76]

The final phase period of August saw the 2nd AD moved temporarily under the control of XV Corps in order to pursue the withdrawing Germans.[77] The 82d ARB's role in the division's operations remained one of reconnaissance. As the division advanced, the 82d ARB remained in front, establishing and maintaining contact with the enemy while taking prisoners.

Throughout its time in combat, the customary movement formation of the 2nd AD was Combat Command A on the right, Combat Command B on the left, and the 82d ARB as the vanguard in a reconnaissance role.[78] Through two months in combat in the European Theater of Operations, the division covered much ground. As the 82d ARB led the way for much of the

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[74] US Army, *FM 100-5* (1941), 45.

[75] VII Corps, *The History of the VII Corps*, 186-9.

[76] 82nd Armored Reconnaissance Battalion, *After Action Report: 82nd Armored Reconnaissance Battalion*, 162.

[77] VII Corps, *The History of the VII Corps*, 186-11.

[78] Smith, *2nd Armored Division: "Hell on Wheels,"* 41.

drive, the unit represented the first Allied force to cross into Belgium. In all, the battalion received numerous unit citations for its achievements, including the Presidential Unit Citation.[79] Additionally, three soldiers were awarded the Distinguished Service Cross, the award second in prestige only to the Medal of Honor.

Implications

The 82d ARB represented one of two World War II division reconnaissance squadrons that spent at least 20% of its time conducting actual reconnaissance missions; over a recorded period of 334 days, 75 of those involved conducting reconnaissance-related tasks.[80] Additionally, units like the 82d ARB went to war under a doctrinal construct that was not feasible. The doctrine that units trained and operated with during World War II was understandably flawed given the emerging technology and the growing complexity of the battlefield. Doctrine's call for reconnaissance detachments to conduct stealth operations was unrealistic, as was the expectation that reconnaissance units would only conduct reconnaissance missions.[81]

As seen with the 82d ARB, the option to avoid contact with the enemy proved unrealistic. During August 1944, nearly every mission the 82d ARB conducted included some degree of enemy contact. Through a month of operations that ranged from traditional reconnaissance operations to full offensive assaults, the 82d ARB demonstrated that the reconnaissance unit should be one that is as prepared to fight as much as gather information.

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[79] William Merriam and Robert Smith, *History of the 82nd Reconnaissance Battalion*, 1954. Available at US Army Ike Skelton Combined Armed Research Library Digital Library.

[80] Hofmann, *Through Mobility We Conquer*, 384.

[81] Ibid., 310.

A key lesson learned by the World War II Army was the lack of emphasis in doctrine on security operations.[82] While the After-Action Reports for 2nd AD and the 82d ARB described many actions as "reconnaissance," the intent behind a good number of the missions was to provide reaction time and space for the division commander, making them security missions more than reconnaissance missions. As observed with the 2nd AD, units assigned a reconnaissance role were just as likely to conduct security missions. Further, the doctrine's insistence on reconnaissance units avoiding contact ignored the fact that in the fight for information, the friendly unit did not always dictate the action. Commanders must therefore ensure that the reconnaissance unit is appropriately equipped to fight for information as may be required.

The purpose of a reconnaissance element is to provide the commander with information that enables him to make informed decisions that mitigate risk. The case study of the 2nd AD in World War II provides a couple of ways to employ ground reconnaissance assets to support decision-making. First, the reconnaissance element was almost always out front. In one instance, it conducted zone reconnaissance to discover a way forward for the division. While this is something that contemporary aviation assets could do as well, the advantage of a ground element is its ability to verify trafficability of the route, something that is vitally important for a mechanized force. This capability enables the commander to decide on the direction of the attack and, if multiple options are available, select the one that provides the best chance of success. Second, the reconnaissance element could conduct reconnaissance in force operations that morph into an offensive assault. Reconnaissance units conducting offensive operations went against the doctrine of the day, but provided that commander with options when the opportunity presented itself. By giving the 82d ARB additional assets, the division commander enabled them to find and report on the enemy, then engage them at the division commander's discretion. This option

[82] McGrath, *Scouts Out! The Development of Reconnaissance Units in Modern Armies*, 145.

empowered the division commander with the ability to focus his main combat power elsewhere while diminishing the enemy's capability. The advantage of a ground unit conducting this operation, rather than an aviation unit, was the ground unit's ability to seize and retain terrain.

In summary, World War II witnessed the full implementation of the mechanized force in combat. The doctrine evolved as the war progressed to reflect lessons learned on the battlefield, as did the organization of the units. Several review boards took place following the war to capitalize on new technology and new techniques, reflecting a greater understanding of what was required to fight for information and security.[83] When Desert Storm broke out in 1991, the US Army had gone through several new iterations of operations manuals and reconnaissance doctrine publications. What remained consistent, however, was the commitment to a division-level ground reconnaissance force.

Mechanized Reconnaissance in the Gulf War

Much changed in doctrine the years following the Second World War. Conflicts in Korea and Vietnam, mixed with Cold War preparations, left the US Army with a new outlook on the conduct of war. Notably, the 1973 Arab-Israeli war demonstrated to Army leaders such as General William DePuy that the future of war was fast and lethal due largely to the speed of mechanized warfare.[84] DePuy authored doctrine focused on the defense of Europe, but less than a decade later needed a revision, as General Donn Starry, the Training and Doctrine Command (TRADOC) chief from 1977-1981, observed.[85] He made updating doctrine his top priority, while

[83] McGrath, *Scouts Out! The Development of Reconnaissance Units in Modern Armies*, 145.

[84] Brian McAllister Linn, *The Echo of Battle: The Army's Way of War* (Cambridge, MA: Harvard University Press, 2007), 202.

[85] Mike Guardia, *Crusader: General Donn Starry and the Army of His Times* (Havertown, PA: Casemate Publishers, 2018), 145.

simultaneously developing a new division framework focused on the heavy division.[86] New doctrine introduced the term “operational art” and, with it, a focus on not just the close battle, but the deep fight as well.[87] New technology enabled new abilities, and doctrine and the organizational structure reflected such. In 1991, the Army had the opportunity to bring the new tactics, techniques, and procedures developed over the previous decade to battle. As part of that test, the 1st Infantry Division (ID), known as the “Big Red One,” deployed to the Persian Gulf as part of VII Corps in the conflict that became known as Desert Storm. The division’s success on the battlefield helped shape the way forward in the ongoing search for combat proficiency.

Desert Storm Reconnaissance and Security Doctrine

The keystone doctrine on warfighting when Operation Desert Storm began was the 1986 FM 100-5, *Operations*. This publication built on the concepts developed and introduced in the 1982 edition of FM 100-5, including the tenets of AirLand Battle doctrine, namely initiative, agility, depth, and synchronization.[88] The 1982 edition of FM 100-5 was a departure from the attrition warfare doctrine, and introduced concepts based on maneuver warfare.[89] Initiative referred to the ability to force the enemy to conform to the friendly units will while maintaining the operational tempo.[90] The initiative rested on individual soldiers and subordinate leaders to independently act on an opportunity. Agility referred to the ability to act faster than the adversary,

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[86] Guardia, *Crusader: General Donn Starry and the Army of His Times*, 145–148.

[87] Jarymowycz, *Cavalry From Hoof to Track*, 205.

[88] US Department of the Army, *Field Manual (FM) 100-5, Operations* (Washington, DC: Government Printing Office, 1986), ii.

[89] Linn, *The Echo of Battle: The Army’s Way of War*, 209.

[90] US Army, *FM 100-5* (1986), 15.

while depth referred to "the extension of operations in space, time, and resources."[91] Finally, synchronization referred to the ability to arrange operational activities to produce the maximum effect on the enemy.[92] Each tenet also applied to reconnaissance and security tasks. For example, much of the information provided by those forward contributed significantly to the commander's ability to synchronize operations. Reconnaissance and security elements provided the commander with flexibility, including both critical information delivered in time to adjust the plan as needed or security that allowed the commander time to make decisions. Depth allowed commanders to maintain momentum in operations; reconnaissance elements forward contributed to the overall picture in depth that allowed commanders to make decisions enabling battlefield success.

AirLand Battle also introduced the close, deep, and rear framework of the battlefield. Close operations were those actions conducted once direct contact with the enemy occurs, while deep operations included those that shaped the battle outside of the close area.[93] Rear operations supported actions in the close fight and the deep fight as required. The challenge for the division commander and his staff at the time was to properly synchronize the three operational areas to ensure overall success on the battlefield.

The maneuver units identified in FM 100-5 were light infantry, mechanized infantry, motorized infantry, armor, cavalry, and aviation. As with World War II units, in theory, each element was tasked to conduct reconnaissance and security operations, though some were better trained and equipped than others. FM 100-5 continued the earlier doctrinal theme regarding the cavalry's role with respect to reconnaissance operations, going as far as to say that

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[91] US Army, *FM 100-5* (1986), 16.

[92] Ibid., 17.

[93] Ibid., 37.

reconnaissance and security operations were the cavalry's "basic tasks."[94] The manual further noted that aviation air cavalry could recon or screen a more extensive area over a shorter period.

The most significant difference between the 1986 version of *Operations* and the World War II doctrinal construct was its emphasis on security operations and its almost symbiotic relationship to reconnaissance operations. The manual further emphasized speed and initiative; reconnaissance then provided information for the commander to make decisions while security preserved the unit's freedom of action.[95]

In 1990, divisions deploying to the Persian Gulf followed the 1990 FM 71-100, *Division Operations*. With FM 71-100, the division constituted the cornerstone of the AirLand Battle doctrine, and the manual noted that the fight was "won or lost by the division integrated fight."[96] FM 71-100 further dictated that units must adhere to the fundamentals of maintaining the maximum force forward, orienting on the direction and movement of the objective, the rapid development of the situation and reporting, retaining freedom of maneuver, and gaining and maintaining contact with the enemy.[97] As the units assigned the reconnaissance mission may be required to fight for information, proper consideration to unit size and capability proved critical. Further, like the units of World War II, those assigned reconnaissance missions were likely to conduct security missions as well.

Security operations focus on fundamentally providing reaction time and space for the commander. FM 71-100 asserted that any element may conduct security operations, while

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[94] US Army, *FM 100-5* (1986), 42.

[95] Ibid., 32.

[96] US Department of the Army, *Field Manual (FM) 71-100, Division Operations* (Washington, DC: Government Printing Office, 1990), 1–1.

[97] Ibid., 1–18.

adhering to the additional fundamentals of orienting on the main friendly body, performing continuous reconnaissance concurrently, providing an early and accurate warning, and maintaining contact with the enemy.[98] Significantly, FM 71-100 nested with *Operations* in its paring of reconnaissance and security operations. Security tasks like screen, guard, and cover all contained some element of intelligence gathering. While smaller units may conduct screen and guard missions, FM 71-100 stated that a covering force for a division was a brigade-sized element and required additional support from enablers like artillery and engineer units.[99]

In 1990, the division cavalry squadron was a part of the organization design. Its primary purpose was the conduct of reconnaissance and security operations in the close area as a cohesive unit working directly for the division commander.[100] FM 71-100 mandated that the division cavalry squadron must be able to conduct not only core reconnaissance missions, but guard and cover missions as well as the missions of other battalions as necessary.[101] Other specified tasks included acting as a liaison between two maneuver elements, filling gaps between units, facilitating passage points for maneuver units through reconnaissance zones, and providing security for rear operations.

Armored Divisional Organization in Desert Storm

When the Army adopted AirLand Battle doctrine, it coincided with technological advancement. Known as the “Big Five,” the fielding of the M1 Abrams main battle tank, the

[98] US Army, *FM 71-100* (1990).

[99] Ibid., 1–19.

[100] Ibid., 2–5.

[101] Ibid., 1-1.

BFV, the Blackhawk and Apache helicopters, and the Patriot missile system were among the most significant implementations in the Army to date.[102] Though the Army did not end with the complete "Division 86" structure that General Starry initially envisioned, it did make advancements to the heavy armored divisions.[103] When Operation Desert Storm began, the divisional combat organization included a divisional cavalry squadron. Like the cavalry reconnaissance squadron of World War II, the divisional cavalry squadron acted as a dedicated unit equipped for not only reconnaissance operations but also for security operations. Unlike the World War II ARB, the design of the divisional cavalry squadron did not include tanks because of the assumption that the armored cavalry regiments (ACR), similar to the mechanized cavalry groups of World War II, would receive economy-of-force missions requiring the combat power tanks provided.[104]

In 1991, the standard division cavalry squadron consisted of two troops of three platoons each. The platoons fielded six M3 Bradley Cavalry Fighting Vehicles (CFVs). Additionally, each troop included a mortar platoon with three armored personnel carriers with mounted 81mm mortars. The squadron also had aviation elements in the form of two aviation troops, each with observation and attack platforms to augment their observational reach and strike capabilities.[105] The cavalry squadron thus was designed for speed and agility against similar fighting vehicles. The absence of tanks in the formation, however, meant that its ability to fight for information was limited without augmentation. The aviation assets offset the lack of firepower, but were subject to

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[102] James King, "Large-Scale Combat Operations: How the Army Can Get Its Groove Back," Modern War Institute at West Point, last modified June 2018, accessed January 6, 2019, https://mwi.usma.edu/large-scale-combat-operations-army-can-get-groove-back/.

[103] Guardia, *Crusader: General Donn Starry and the Army of His Times*, 148.

[104] McGrath, *Scouts Out! The Development of Reconnaissance Units in Modern Armies*, 165.

[105] Ibid.

intangibles that could affect their employment, such as weather. Regardless, this formation afforded the division commander multiple assets with which to conduct reconnaissance and security missions.

When the ground war officially began, the 1st ID organized as an armored formation composed of six tank battalions and three mechanized infantry battalions organized into three brigade formations. The division also boasted a division cavalry squadron that was organized within the aviation brigade (Figure 6).[106] In most combat situations, the division commander assumed control of the division cavalry squadron.

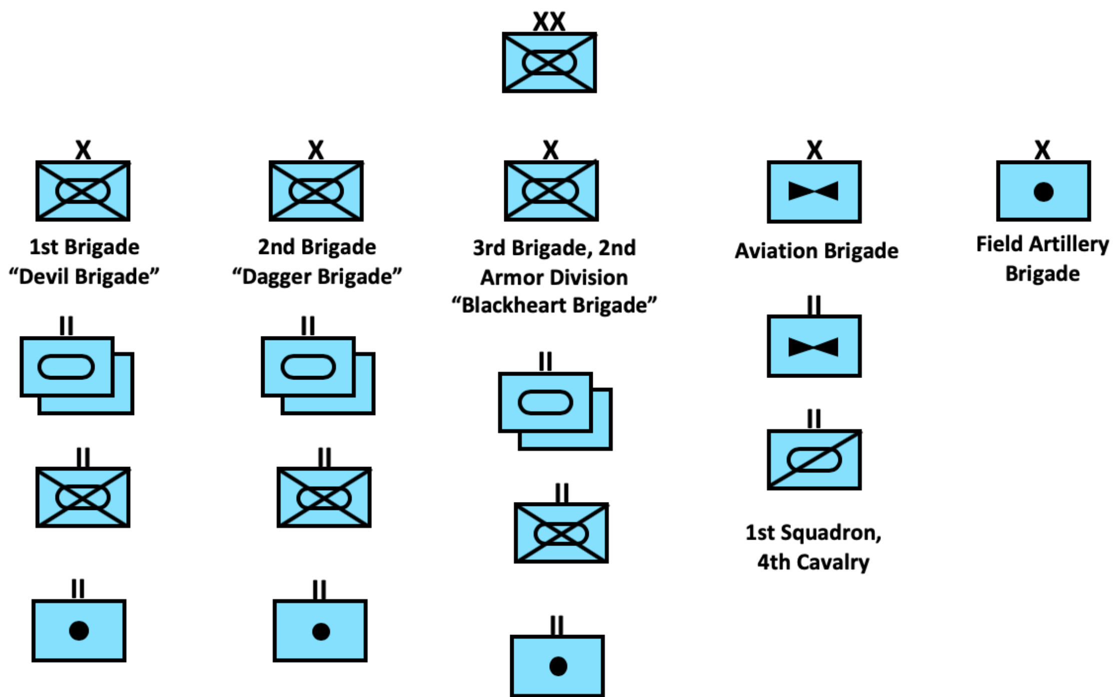

Figure 6: The 1st Infantry Division in Desert Storm. Created by author.

[106] Thomas D. Dinackus, *Order of Battle: Allied Ground Forces of Operation Desert Storm*, (Central Point, OR: Hellgate Press, 2000), 4A-6.

The task organization of the Big Red One's cavalry squadron, 1st Squadron, 4th Cavalry, (1-4 CAV) heavily deviated from the organizational design. Rather than keeping the light structure, the division added nine M1A1 Abrams battle tanks to the unit. The addition of tanks allowed the squadron to restructure its two troops, with one having three tanks and one having six, thereby boosting firepower in the organization (Figure 7). The aviation element of the squadron remained in line with the standard organization.[107] In all, the division commander had a multi-functional unit as capable of fighting for information as it was conducting offensive operations.

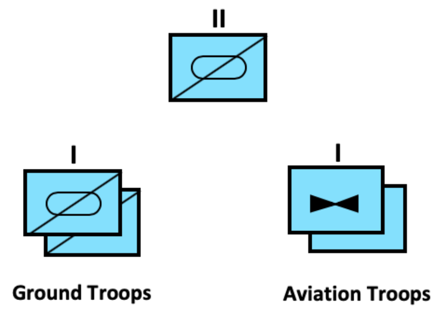

Figure 7: 1st Squadron, 4th Cavalry in Desert Storm. Created by author.

Until Iraq invaded into Kuwait, all training for divisions and squadrons remained focused on reinforcing units in Europe.[108] Training included rotations at the National Training Center, staff exercises at the Battle Command Training Program (today's Mission Command Training Program), gunnery exercises, and soldier readiness activities. When the division officially received their deployment notice, training and preparation reached a high level, though the

[107] Dinackus, *Order of Battle: Allied Ground Forces of Operation Desert Storm*, D10–D11.

[108] Stephen Bourque and John Burdan, *The Road to Safwan: The 1st Squadron, 4th Cavalry in the 1991 Persian Gulf War* (Denton, TX: University of North Texas Press, 2007), 15.

training remained fundamentally the same. Among the cavalry's challenges was the integration of the non-organizational tanks, which the squadron did not receive until arriving in Saudi Arabia.[109]

Historical Narrative

The Gulf War's ground campaign began in earnest on 24 February 1991. For the first time since World War II, an armored corps would conduct operations in combat as a maneuver headquarters.[110] Of the divisions assigned to Lieutenant General Frederick Franks, Jr., the VII Corps commander, only the 1st ID would deploy from the United States; the other two US combat divisions were forward in Germany.[111] 1st ID may have been chosen in part been due to the relationship forged between Franks and Major General Thomas Rhame, the 1st ID commander, during a Battle Command Training Program exercise in the fall of 1989.[112]

After arriving in Saudi Arabia in January 1991, the Big Red One prepared to execute its mission during the advance: a breach of the Iraqi defenses followed by a forward passage of lines with the following unit.[113] By 1 February, the division had established a forward base in preparation for the coming offensive. As part of the defensive posture, 1-4 CAV, commanded by Lieutenant Colonel Robert Wilson, began executing security missions, screening forward of the perimeter.[114] This mission served to protect the growing supply base and deter Iraqi scouts probing the Saudi border.

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[109] Stephen Bourque, *Jayhawk! The VII Corps in the Persian Gulf War* (Washington, DC: Government Printing Office, 2002, 23.

[110] Ibid., 26.

[111] Ibid., 27.

[112] Ibid., 14.

[113] Ibid., 110.

[114] Ibid., 128.

Major General Rhame's use of the cavalry varied based on the situation. In mid-February, he created Task Force Iron to conduct counter-reconnaissance in advance of the breach and to conduct deception operations in the zone. Its primary purpose, once the operation commenced, was to create lanes in the Iraqi border berm.[115] The reconnaissance squadron took part in the task force along with an infantry battalion, aviation battalion, and fires battalion.[116] In this configuration, the task force collected information on enemy intent and capability and had enough firepower to engage in a high-intensity fight if required.

In part due to the open desert terrain, divisions attacking into the enemy-held territory were able to maneuver in mass. The Big Red One, having completed its initial mission, received orders on the afternoon of 25 February to move forward to assist in the destruction of the Iraqi Republican Guard. Much like the battlefields of World War II, divisions moved in unison according to the direction of a corps commander. On the mid-morning of 26 February, 1 ID moved towards a passage point with the 2nd ACR, which had succeeded in locating the Republican Guard. The 1st ID would pass through the 2nd ACR and destroy the remaining enemy units.

The VII Corps plan called for the 2nd ACR to push forward to make contact with the enemy but not become decisively engaged.[117] The 2nd ACR succeeded in routing an entire Iraqi battalion as part of what may be considered a corps-directed reconnaissance-in-force mission. Now, 1st ID would make contact with the 2nd ACR and conduct a passage of lines, then immediately engage the enemy. Rhame, utilizing a doctrinal division movement formation, sent

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[115] Gregory Fontenot, *The 1st Infantry Division and the U.S. Army Transformed: Road to Victory in Desert Storm, 1970-1991* (Columbia, MO: University of Missouri Press, 2017), 212.

[116] Bourque, *Jayhawk! The VII Corps in the Persian Gulf War*, 155.

[117] Ibid., 330.

1-4 CAV forward to make contact with 2nd ACR and prepare to pass the division through. While not a reconnaissance mission per se, the standard practice in a movement was to have the lead element screen ahead of the main body. As this mission often fell to the cavalry, so, too, did link-up operations. Once contact occurred, Rhame changed the plan because of unanticipated conditions. Initially, 1-4 CAV was to guide the maneuver brigades forward after making contact with 2nd ACR. Given the light organizational composition of the cavalry squadron, Rhame decided to pass the brigades directly through the 2nd ACR rather than through lanes created by 1-4 CAV forward of 2nd ACR's line.[118]

Rhame used the cavalry in a security role during the division's 26-27 February attack on Objective Norfolk, which took place in the open desert area around the intersection of the Iraqi Pipeline in Saudi Arabia road and desert trails. While the maneuver brigades focused on the destruction of the Iraqi positions, 1-4 CAV established a screen line north of the division's main body to prevent enemy attacks on the division flank.[119] Given his orders to not decisively engage the enemy, Lieutenant Colonel Wilson initially pulled back from a discovered Iraqi position, but returned later to complete the assault.[120] His decision represented decentralized initiative, as the Iraqi combat power in the area could have impacted the division's main body actions. While by doctrine a screening force "gains and maintains enemy contact and reports enemy activity, destroys or repels enemy reconnaissance and impedes and harasses the enemy with long-range fires," Wilson's assessment of the risk demonstrated the unit's flexibility and the role of

[118] Bourque, *Jayhawk! The VII Corps in the Persian Gulf War*, 331–332.

[119] Fontenot, *The 1st Infantry Division and the U.S. Army Transformed: Road to Victory in Desert Storm, 1970-1991*, 329.

[120] Ibid., 350.

decentralized initiative.[121] In all, 1-4 CAV succeeded in destroying several tanks, infantry fighting vehicles, artillery assets, and logistics assets.[122]

Following the division's attack, Franks ordered a pursuit mission against the Republican Guard. The cavalry continued in a security role, screening in advance and on the flank of the division's main body as it moved towards a new objective, Objective Denver, east of the last position. A break in communications resulted in the squadron becoming separated from the division, though Wilson continued to push to his limit of advance rather than wait for the division to return to communications range. This decision, another example of decentralized initiative, occurred as a result of seeking to fulfill the corps commander's intent of reaching Objective Denver to prevent an enemy withdrawal north.[123]

As morning approached on 28 February, a cease-fire emerged, bringing hostilities to a standstill. The final significant actions took place on 1 March when the division seized the Safwan airfield. Rhame ordered a reconnaissance of the airfield and, if conditions warranted, its seizure. With the cease-fire in place, the mission took place without incident with little intel on the enemy capability and intent, mirroring the early reconnaissance missions of World War II, that is, the fight for information.

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[121] US Army, *FM 71-100* (1990), 1–18.

[122] 1-4 CAV Operations Staff, "Riders on the Storm: A Narrative History of the 1-4 CAV's Campaign in Iraq and Kuwait - 24 January - March 1991," *Armor* (June 1991): 16.

[123] Bourque, *Jayhawk! The VII Corps in the Persian Gulf War*, 376.

Implications

For the Army, the results of the Gulf War seemed to validate the AirLand Battle doctrine and proved the service was on the correct path as a whole.[124] From an organizational standpoint, the 1990-91 cavalry squadron was, for the most part, adequately equipped to conduct the reconnaissance and security missions assigned to it. While some missions, such as the seizure of Safwan airfield, required augmentation, most missions succeeded without additional resources. Given the logistical capabilities of the division, rarely was the squadron delayed. The organizational blend of ground troops and aviation troops afforded Rhame necessary flexibility, and the addition of tanks to the ground troops supplied the additional firepower necessary to seize small objectives, like those on the Objective Norfolk screen line.

There are two key takeaways from the passage of lines between 1st ID and 2nd ACR. First, in a high-intensity fight with an aggressive enemy, the attacking division relied on the information regarding the enemy's capability and intent to make decisions. Rhame's decision was a result of intelligence gathered by 2nd ACR, VII Corp's reconnaissance asset. Second, limitations existed in 1-4 CAV's ability to make contact with the enemy and hold a line to pass the maneuver brigades forward. Given the availability of only two ground troops with limited tanks, the squadron would have relied heavily on aviation assets to destroy enemy armor as deep as possible or risk potential failure. Even with the tank augmentation, in a close fight with a peer equipment threat, the squadron was limited in the types of engagements it could undertake.

As a security element, the cavalry often received missions to conduct adjacent unit coordination with outside units. Adjacent unit coordination also involved filling gaps between the units. Depending on the adjacent unit's strength at the unit boundary, the gap could be of concern. During the actions on Objective Norfolk, 1-4 CAV's tanks were the main reason for the success

[124] Linn, *The Echo of Battle: The Army's Way of War*, 220.

in not only filling the gaps left by a weakened adjacent unit but in destroying smaller objectives without requiring the division to move combat power to it.[125]

Current Trends and Recommendations

Divisions in today's Army train at the Mission Command Training Program, or MCTP, the successor to the Battle Command Training Program of the Gulf War ear. While the training is virtual, it gives the division or corps commanders and their staffs an opportunity to exercise their procedures and train against a realistic enemy in any terrain. The training also serves as a proving ground to test theories about complex problems, including the conduct of ground reconnaissance in today's environment.

The removal of a dedicated division cavalry unit has left a gap in capabilities for the division commander, specifically the lack of ground reconnaissance employment. Trends from the MCTP reveal that divisions do not plan for ground reconnaissance; instead, they rely on unmanned aerial vehicles to handle all things reconnaissance.[126] Additionally, trends show that the Combat Aviation Brigade is used in a reconnaissance and security manner to enable more combat power to participate in the decisive operation. While some units have augmented the aerial reconnaissance squadron with ground troops, there still exists a gap in understanding as to the unit's purpose in terms of reconnaissance and security operations.[127]

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[125] Bourque and Burdan, *The Road to Safwan: The 1st Squadron, 4th Cavalry in the 1991 Persian Gulf War*, 158.

[126] Kimo Gallahue, *Mission Command Training in Unified Land Operations: FY17 Key Observations* (Fort Leavenworth, KS: Center for Army Lessons Learned, 2018), 38.

[127] Kimo Gallahue, *Mission Command Training in Unified Land Operations: FY16 Key Observations* (Fort Leavenworth, KS: Center for Army Lessons Learned, 2017), 47.

A second trend from the warfighter exercises centers on the challenges with planning and conducting reconnaissance beyond the coordinated fire line.[128] The coordinated fire line is the marker beyond which indirect and direct fires are permitted without additional coordination.[129] This area is referred to as the deep area in the current FM 3-0 and is unassigned to subordinate units.[130] Understanding the situation as it develops in the deep area is key to a successful operation because the deep area's named areas of interest are tied to information requirements driving decision-making. Recent trends suggest that divisions' inability to apply answers to information requirements result in less decisive decisions from the commander.[131] Often, the inability to meet intelligence requirements is due to, among other things, the sole reliance on Grey Eagle unmanned platforms.

Other trends suggest education and experience plays a factor in the reconnaissance struggle. Reconnaissance operations are conducted to meet the commander's critical information requirements. As part of the information collection mission, the commander issues his guidance to the reconnaissance unit in the form of his "commander's reconnaissance guidance." This guidance is critical to the unit's ability to plan and includes such elements as the mission's focus, tempo, engagement and disengagement criteria, and displacement criteria.[132] Each element requires an understanding of the environment and the commander's intent. Trends at the combat

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[128] Paul Roberts, "Reconnaissance Beyond the Coordinated Fire Line," *Military Review* (August 2018): 31.

[129] US Department of the Army, *Army Doctrine Publication (ADP) 1-02, Terms and Military Symbols* (Washington, DC: Government Printing Office, 2018), 1–24.

[130] US Army, *FM 3-0* (2017), 1–34.

[131] Roberts, "Reconnaissance Beyond the Coordinated Fire Line," 37.

[132] US Department of the Army, *Field Manual (FM) 3-98, Reconnaissance and Security Operations*, 4–3.

training centers suggest that units experience challenges with the application of the commander's reconnaissance guidance, including the struggle to convey the relevant information to the commander. These struggles may be attributed to lack of experience in application or a gap in the education of practitioners at various echelons.

The previous historical case studies offer several valuable implications for the contemporary US Army division. First, the division must task organize a ground reconnaissance formation. Doctrine specifies a ground-based formation, but the historical experiences of the 82d ARB and 1-4 CAV suggest that the ground units constitute combat multipliers, not only in the reconnaissance and security fight but also in their ability to transition to maneuver units. Contemporary units for reconnaissance and security missions should have a mixture of infantry fighting vehicles and tanks and be supported by an aviation element. Infantry fighting vehicles empower the commander with the option of placing dismounted elements on the ground and allow the unit to reach areas otherwise restricted to vehicles. If a transition to defensive or offensive operations is required, properly equipped dismounted troops create an additional threat to enemy armored formations. Tanks in the formation allow the commander to fight for information against an armored threat. Further, tanks make the transition to offensive or defensive operations much more feasible. Finally, a supporting aviation element extends the observable reach of the reconnaissance unit and offers additional firepower should the ground unit require it. The division cavalry organization established by 1-4 CAV in Desert Storm served as a model for the Army’s last division cavalry squadron. In its last design, the division cavalry squadron consisted of three troops with two CFV platoons and two tank platoons and a mortar section. The squadron retained the aviation element as well, with two troops of attack helicopters.[133] In today’s

[133] McGrath, *Scouts Out! The Development of Reconnaissance Units in Modern Armies*, 167.

formation, with advances in unmanned aerial vehicles, the addition of attack helicopters as an organic part of the unit is perhaps unnecessary. The division commander retains flexibility if he maintains control of the aviation assets and uses them in a support role to the reconnaissance unit as necessary.

Second, the mission essential task list for divisions must be updated to emphasize training reconnaissance operations at lower echelons. The standard armored brigade mission essential task list outlines the need to conduct a movement to contact, an attack, an area defense, area security, and expeditionary deployment operations.[134] The infantry and Stryker brigade task lists are similar, adding the task "Conduct Air Assault Operations," while maintaining the others outlined for armored brigades. The task to conduct reconnaissance is subordinate to the first four enumerated, thereby lessening the priority. In its current listing, units may or may not train reconnaissance tasks in a manner that allows them to conduct these operations in combat. While non-specialized units may never be as proficient in the conduct of reconnaissance, traditional line units, with additional training and education, can perform the function. In large scale combat operations with a contested air domain, the ability of the aviation brigade to fly is dependent on several conditions, yet the ability for a maneuver element to move forward to gain information on the enemy may be less contested. Reconnaissance tasks should become a primary task for BCTs as the need to fight for information may become the difference in victory or defeat.

The third recommendation in considering future options is a modification in education. The art of conducting reconnaissance operations transcends observing the enemy and reporting back. The executing unit must understand the commander's reconnaissance guidance and the commander's intent behind the mission. The reconnaissance guidance provides the executing unit

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[134] US Army Armor School, *The United States Army Armor Training and Leader Development Strategy 2017 -2018*, 53.

the parameters within which they operate. The elements of focus, tempo, engagement, disengagement, and displacement each have options below them that can alter the approach of the mission. The commander's reconnaissance guidance and its subsequent terms are unique to the cavalry squadron and may be unfamiliar to a line unit.[135] A thorough understanding of the terms is required for the reconnaissance commander to execute the mission according to the division commander's intent. Education provides the understanding necessary for success.

Maneuver officer education is a fluid process, the complexity of which is not the topic of this essay. However, a gap exists in education for maneuver officers with regards to reconnaissance and security application. Currently, the basic officer training course for an armor officer requires attendance to the three-week Cavalry Leaders Course, a program designed to train students on reconnaissance and security doctrine and procedures.[136] There is no published mandate for infantry officers to attend the course, though the school is open to all branches. By requiring both infantry and armor officers to attend the three-week course, gaining units will have access to officers trained in the application of reconnaissance and security. Senior leaders have begun to recognize the shortfall in education, mandating that leaders moving to cavalry units attend the requisite schools.[137] While this mandate is a good initial remedy, a more encompassing solution may be to require all leaders to attend the specialty school or to incorporate the curriculum into the already-established basic or advanced course. By providing universal

[135] Anthony Capozzi, "Enhanced Disciplined Initiative to Enable Mission Success: Commander's Reconnaissance Guidance," *Armor* (Summer 2018); 30.

[136] "Fort Benning | Cavalry Leader's Course," US Army Fort Benning and the Maneuver Center of Excellence, accessed December 4, 2018, https://www.benning.army.mil/Armor/316thCav/CLC/index.html.

[137] General Robert Abrams, "FORSCOM Command Training Guidance (CTG) - Fiscal Year (FY) 2017," June 16, 2016, 7. Available at www.forscom.army.mil.

reconnaissance and security education, the subordinate leaders will be fully equipped to undertake any mission assigned and help fill the gap this monograph identified.

Finally, identifying the unit to serve in the reconnaissance capacity early on will allow them to train on the appropriate tasks. When units determine their priorities in training, the mission essential task list is the beginning point. However, the commander determines the training priorities. If a line unit is assigned the mission, then enough time must be allocated to their specialized training. Should they fail to prepare properly, the unit is instantly at a disadvantage, and this puts the division at a heightened level of risk.

Conclusion

In 1812, Napoleon Bonaparte fielded the largest army the European world had seen to that point.[138] He went to war against a near-peer foe, one who was determined to avoid defeat but was far from numerically superior. Despite his experience and numerical advantage, through a series of choices and circumstances, the emperor returned to France defeated. From his failure to exploit tactical success in a pursuit, to his fateful decision to return on his original axis of advance, Napoleon's application of reconnaissance failed him. Though the tactics and technology have evolved through the centuries, the need for a set of eyes forward informing the commander of the situation remains.

This monograph evaluated how ground reconnaissance and security operations were successfully conducted in previous large-scale combat operations to inform and recommend options for the future. The stories of the 82d ARB in World War II and 1-4 CAV in Desert Storm

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[138] Alexander Mikaberidze, "The Limits of Operational Art: Russia 1812," in *Napoleon and the Operational Art of War: Essays in Honor of Donald D. Horward*, ed. Michael Leggiere (Leiden: Brill, 2016), 280.

show how specialized and trained units met the demands of both doctrine and the commander's information requirements. They additionally identified some shortfalls. Their experiences indicate that the unit chosen to conduct ground reconnaissance must be capable of fighting for information and, when required, transition to offensive or defensive tasks without requiring additional assets from the division. A unit sent forward without the proper capabilities is a liability rather than an asset. A unit requiring additional assets due to its inability to complete the designated mission risks de-synchronizing the division's mission, potentially leading to the division's failure in combat. If Clausewitz is correct, and victory is only temporary, then the only advantage the commander has is his ability to see what is coming.[139] That is the role of the reconnaissance and security mission.

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[139] Clausewitz, *On War*, 90. Clausewitz notes that hostilities cannot end "so long as the enemy's will has not been broken."

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