

Fighting Blind:
Why US Army Divisions Need a Dedicated Reconnaissance
and Security Force

A Monograph by
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Abstract

Fighting Blind: Why US Army Divisions Need a Dedicated Reconnaissance and Security Force, by MAJ Daniel R. Ludwig, US Army, 35 pages.

Since the Army reorganized into modular Brigade Combat Teams, US Army divisions have not had a dedicated reconnaissance and security force. This study answers the questions do US Army divisions need a dedicated reconnaissance and security force and if so how should it be organized, equipped, and trained? This study uses history, trends in warfare, and current US Army doctrine to answer the research questions.

This monograph finds that divisions need a dedicated division cavalry squadron. Left without a dedicated reconnaissance and security force divisions in World War I, such as 1st Division created scout detachments and requested observation airplanes to aid in reconnaissance and security tasks. For the rest of the 20th century the US Army experimented with the right organization, equipment and training for reconnaissance and security but every division had a dedicated reconnaissance and security force. By the 2003 invasion of Iraq, 3d Infantry Division employed a division cavalry squadron that integrated ground and air capabilities to great effect. Trends in warfare and technology show reconnaissance and security tasks will remain essential as the enemy attempts to remain hidden from US strengths in firepower. Recent combat in Ukraine highlight the lethality of the modern battlefield. The enemy of the future will continue to disperse across the battlefield and will use complex terrain such as megacities to conceal its location and preserve its combat power. Current US Army doctrine describes the need for reconnaissance and security forces in the deep area to shape the division close fight.

This study recommends that the Army should organize, equip, and train a dedicated reconnaissance and security force based on the tasks zone reconnaissance, reconnaissance in force and guard. To conduct these tasks, the Army should organize, equip, and train the force keeping in mind four characteristics that will make the force capable of the reconnaissance and security tasks divisions need. First, the organization needs to be able to fight for information and time. Second, divisions need combined ground, aerial and technical reconnaissance abilities. Third, the division reconnaissance and security force needs to move faster both in and out of contact with the enemy and faster than the enemy or the division main body. Fourth, division reconnaissance and security needs to be capable of providing the mission command over a unit capable of the reconnaissance and security tasks expected by the division.

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Acronyms

ACR	Armored Cavalry Regiment
ADP	Army Doctrine Publication
ATP	Army Techniques Publication
BCT	Brigade Combat Team
BfSB	Battlefield Surveillance Brigade
BTR	Bronetransportyor/Bonetransporter
DA	Department of the Army
FM	Field Manual
PAM	Pamphlet
R&S	Reconnaissance and Security
SBCT	Stryker Brigade Combat Team
TRADOC	Training and Doctrine Command
UAV	Unmanned Aerial Vehicle

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Introduction

3-7 Cavalry conducted reconnaissance and security tasks ahead of and on the flank of 3d Infantry Division as the division led Vth Corp's attack from Kuwait to Baghdad in 2003. 3-7 Cavalry's movements confused the enemy about 3d Infantry Division's location and intent. Before committing its subordinate brigades, 3d Infantry Division used 3-7 Cavalry's actions to confirm where the enemy was defending and in what strength. The combination of scouts, tanks, and helicopters in 3-7 Cavalry enabled a faster tempo for 3-7 Cavalry than both the enemy and the rest of 3d Infantry Division. 3-7 Cavalry's organization, equipment, and training were the result of continuous experimentation and combat experience since the interwar period. The US Army designed the organization, equipment, and training of division cavalry squadrons specifically for conducting reconnaissance and security tasks for a division. However, just two years later, the US Army turned its back on this battle proven force and eliminated division cavalry squadrons.¹

Since the Army reorganized into modular Brigade Combat Teams, US Army divisions have not had a dedicated reconnaissance and security force. The Army planned to organize Reconnaissance, Surveillance, and Target Acquisition Brigades to conduct reconnaissance and security for corps and divisions culminating in the Battlefield Surveillance Brigade.² However, in 2016 the US Army eliminated Battlefield Surveillance Brigades. Army divisions are still without a dedicated reconnaissance and security force able to conduct the range of reconnaissance and security tasks required by a division.³

¹ James G. Lacey, *Takedown: The 3rd Infantry Division's Twenty-One Day Assault On Baghdad*, 1st ed. (United States: Naval Institute Press, 2007), 44-45.

² 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: Combat Studies Institute Press, US Army Combined Arms Center, 2010), 463-465.

³ Drew Brooks, "525th Military Intelligence Brigade Unveiled on Fort Bragg," *The Fayetteville Observer*, 2014, accessed March 2, 2017, <http://www.fayobserver.com/fa19cc96-f895-59f3-accb-eb9015281b15.html>.

Part of modularization included adding a cavalry squadron to each Brigade Combat Team; however, these squadrons cannot perform the range of reconnaissance and security tasks required by a division. The Army did not organize brigade cavalry squadrons to include an air cavalry troop, which proved vital to division cavalry squadrons during both wars in Iraq. Because brigade cavalry squadrons operate within brigades, they do not train to serve in the division deep area. Furthermore, brigade cavalry squadrons are not dedicated to the division and the brigades need their cavalry squadron to conduct reconnaissance and security tasks for the brigade.

Do US Army divisions need a dedicated reconnaissance and security force and if so how should it be organized, equipped, and trained? US Army division experiences from the Great War to the wars in Iraq provide context to understand the development of a dedicated reconnaissance and security force. Since 1917, US Army divisions employed a multitude of reconnaissance and security organizations, with different equipment, and different emphasis in training. They faced a variety of enemy threats on every continent except Antarctica. After appreciating the past, considering the future of warfare is paramount to answering the question of dedicated division reconnaissance and security.

Future warfare trends and implications provide a framework for considering if a division needs a dedicated reconnaissance and security force in the future. Also, future warfare suggests how a future dedicated reconnaissance and security force should be organized, equipped, and trained. The February 2017, *US Army Functional Concept for Movement and Maneuver* describes the Army's concept of future warfare. Additionally, the ongoing conflict in the Ukraine foreshadows what a future battlefield may look like and certainly highlights potential threat tactics and capabilities.

After considering future warfare, US Army doctrine provides a theory for action to help understand how a division would employ a reconnaissance and security force. Reviewing relevant doctrine answers the question if divisions need a reconnaissance and security force. Also, doctrine provides the answer to what tasks a reconnaissance and security force will need to conduct for a division and where the division needs those tasks conducted on the battlefield.

The Army should organize, equip, and train a dedicated reconnaissance and security force for each division, based on the tasks zone reconnaissance, reconnaissance in force and guard. A purpose-designed and dedicated reconnaissance and security force should draw on 100 years of combat experiences and the implications for future warfare. A dedicated force organized, equipped, and trained focused on reconnaissance and security tasks would enable increased division tempo. From World War II through the US invasion of Iraq in 2003, US Army divisions had such a force and used it to great effect.

Evolution of Division Reconnaissance and Security Formations

US Army combat experience over the last 100 years demonstrates US Army divisions need dedicated division reconnaissance and security forces. Since at least World War I, US Army divisions wrestled with the challenge of conducting reconnaissance and security tasks. By World War II, the US Army organized divisions with a dedicated reconnaissance and security force. Infantry divisions had reconnaissance companies while armor divisions had reconnaissance battalions. These forces changed and evolved their organization, equipment, and training over time. These changes were reactions to technology, past experiences, and concepts of how US Army divisions would fight in the future. Analysis of the last 100 years also shows trends in organization, equipping, and training. This analysis informs recommendations for future organization, equipping and training a future dedicated reconnaissance and security force for divisions.

The US Army experience on the western front of World War I offered unique challenges to divisions fighting where there were no assailable flanks. This created problems for how to maneuver and problems in collecting information on the enemy. Initially, leaders of the American Expeditionary Force studied Allied force structure before organizing its force structure. One plan involved organizing two cavalry regiments of three squadrons each under every corps. Corps commanders would assign cavalry squadrons to divisions as needed; however, the American Expeditionary Force prioritized transatlantic

shipments of infantry and artillery over cavalry regiments.⁴ Of the four cavalry regiments that arrived in France, none came with their mounts. Consequently, the American Expeditionary Force assigned almost all cavalymen to non-combat duty. The French Government promised it would provide mounts for US Army cavalry regiments in France but they only provided enough for one squadron.⁵

One squadron of cavalry would not suffice for the entire American Expeditionary Force so divisions began to rely on ad hoc scout detachments and aerial reconnaissance. 1st Division experimented with creating its own scout detachments. The initiative to create such detachments came from experience in the Battle of Soissons. 1st Division created scout detachments but did not have specialized equipment to enable greater mobility, limiting their effectiveness during breakthroughs or what the American Expeditionary Force called open warfare.⁶ A second way US Army divisions conducted reconnaissance was in the air. US Army divisions had access to aerial reconnaissance. Each Army corps had a corps air group. Corps air groups had an observation airplane squadron per division assigned. Throughout the war, divisions relied increasingly on air reconnaissance.⁷ The observation airplane squadrons offered a solution because maneuver was still possible in the air domain. Using the air domain as a maneuver space

⁴ John J. McGrath, *Scouts Out!: The Development of Reconnaissance Units in Modern Armies* (Fort Leavenworth, KS: Combat Studies Institute Press, 2008), 40-42.

⁵ The 2d Cavalry Regiment received the squadron worth of mounts and put together a provisional cavalry squadron consisting of seven cavalry troops from across the regiment. The Squadron's first campaign was the St. Mihiel Offensive. The squadron worked for different division commanders throughout the war but for the St. Mihiel offensive, it was assigned to the 1st Division. During the St. Mihiel Offensive, 1st Division penetrated the Heudicourt-Nosard Line. The Squadron from 2d Cavalry then conducted a forward passage of lines and reconnoitered ahead of the 1st Division. The squadron moved mostly mounted but dismounted to reconnoiter and fight. After taking numerous prisoners, the squadron made contact with a subsequent German defensive line and waited for follow on forces to arrive and resume the defense. The Provisional Cavalry worked well in St. Mihiel once the infantry made the initial break through the German lines. Both the information in the footnote and the paragraph the footnote is found in draw on information found in the following sources. McGrath, *Scouts Out!*, 40-42; Ernest N. Harmon, "The Second Cavalry in the S. Mihiel Offensive," *Cavalry Journal* 30, no. 124 (July 1921); *Second Stryker Cavalry Regiment: History, Customs and Traditions of the "Second Dragoons,"* 12-14.

⁶ James Scott Wheeler, *The Big Red One: America's Legendary 1st Infantry Division from World War I to Desert Storm* (Lawrence, KS: University Press of Kansas, 2008), 74-77.

⁷ McGrath, *Scouts Out!*, 40-42.

had its limitations but was often the only solution available during trench warfare. A ground reconnaissance force was still necessary, and the US Army needed to find a solution before the next war.

After World War I, the US Army experimented with different organizations, equipment and training. One debate within the Army was how much to focus on reconnaissance compared to other tasks including security. The Army organized and trained its division reconnaissance units primarily to conduct reconnaissance although doctrine at the time acknowledged other tasks including counter-reconnaissance and security operations were also possible missions. A parallel debate was over what kind of equipment the cavalry should have. The Army experimented with different organization and equipment and eventually replaced horse mounted units with a mixture of wheeled and tracked vehicles. Upon entering World War II, armored divisions had a reconnaissance battalion while infantry divisions had reconnaissance companies. Equipment and organization of division reconnaissance battalions and companies varied due to fielding new equipment and organizations. However, by 1942 division reconnaissance battalions and companies were mostly equipped with jeeps and at times half-tracks, light tanks, and tank destroyers. Also, division commanders often attached forces as needed for a mission such as tanks, infantry, or engineers. Throughout the interwar period and into World War II, scouts trained to avoid direct fire with the enemy.⁸ The division reconnaissance battalion's first test in combat came during Operation Torch and the Battle of Kasserine Pass.

The 1st Armored Division and its 81st Armored Reconnaissance Battalion along with other US and UK Army divisions fought elements of the Afrika Korps during the Battle of Kasserine Pass. The 81st Armored Reconnaissance Battalion had three reconnaissance companies and a light tank company. The three reconnaissance companies primarily used jeeps to conduct reconnaissance.⁹ Initially, the 1st Armored Division tasked the 81st Reconnaissance Battalion to seize high ground to the north and south of

⁸ Cameron, *To Fight or Not to Fight?*, 47-54, 92-93.

⁹ US Army Cavalry School, *Number One: Operations of The 81st Armored Reconnaissance Battalion in Tunisia*, Cavalry Reconnaissance (Army Ground Forces, n.d.), 1.

the division axis of advance. The reconnaissance companies accomplished this task by establishing dismounted observation posts on the high ground. However, German forces discovered the observation posts and soon pushed some of them off the hills using artillery and ground attacks. The few observation posts remaining reported valuable information, helping direct artillery and anti-tank fire. Following the unsuccessful attack by 1st Armored Division, the Division tasked the 81st Armored Reconnaissance Battalion with conducting flank security. 1st Armored Division anticipated the main attack would focus north of the 1st Armored Division on an adjacent division. However, the Afrika Korps directed its main attack against 1st Armored Division. The Afrika Korps attempted to isolate the 1st Armored Division from the rest of the II Corps. In the attack and 1st Armored Division's subsequent withdrawal, A Company, 81st Armored Reconnaissance Battalion was cut off and destroyed. The rest of the 81st Armored Reconnaissance Battalion withdrew with the remainder of the Division after suffering heavy casualties. This action showed reconnaissance and security operations had to be able to fight for information. Jeeps were too light to survive and accomplish the mission. Additionally, inadequate training and lack of experience contributed to errors by junior officers and noncommissioned officers throughout the campaign.¹⁰

After World War II, the US Army reviewed operations in the European theater, commissioned the General Board, and implemented many changes. The result of the review included the fact reconnaissance units typically conducted security 50% of the time and split the remainder of their time between reconnaissance, rear area security, offense, and defense. The amount of security tasks assigned demonstrated a need for reconnaissance units to be able to fight for time and space. The board recommended light armored vehicles instead of jeeps and increasing the number of dismounted scouts. The Army created a standard scout platoon consisting of mounted scouts, dismounted scouts, light tanks, and mortars. Infantry divisions each had a reconnaissance company composed of three platoons while

¹⁰ US Army Cavalry School, *Number Two: Operations of The 81st Armored Reconnaissance Battalion in Tunisia*, Cavalry Reconnaissance (Army Ground Forces, n.d.), 1-18.

armored divisions each had a reconnaissance battalion composed of four reconnaissance companies.¹¹

The new force structure developed after World War II saw its test in combat when the Korean War broke out in 1950.

During the Korean War in late October 1950, 7th Infantry Division, as part of the Xth Corps, completed its second amphibious landing on the Korean peninsula on the east coast port of Iwon. The Republic of Korea Army had already secured the landing area by attacking overland, but the 7th Infantry Division still had to disembark from the ships before continuing their attack north to the Yalu River. As 7th Infantry Division attacked north through the mountainous terrain and cold temperatures the division became strung out over 250 miles. The 17th Infantry Regiment reached the Yalu River and captured the town of Hyesanjin on November 20th. After reaching the Yalu River, the 17th Infantry Regiment pulled back to defensible terrain and waited for something to happen. Five days later, the Chinese Communist Forces attacked the strung out 7th Infantry Division, encircling the dispersed regiments and task forces. In particular, Task Force Faith, composed of two battalions of the 32nd Infantry Regiment, suffered over 80% casualties. 7th Infantry Division fought its way back to the Hungnam Port area and established a defense at the Hangaru-ri line.¹²

A more capable reconnaissance and security force with more combat power would have helped the 7th Infantry Division by identifying Chinese Communist Forces infiltrating and bought time for the 7th Division to organize a coherent defense. 7th Infantry Division had only one reconnaissance company.¹³ This organization lacked the ability to fight for information given the threat; moreover, a company commander could not have provided the mission command necessary to coordinate a

¹¹ McGrath, *Scouts Out!*, 109-111, 148-149; Cameron, *To Fight or Not to Fight?*, 92-112.

¹² 7th Infantry Division Association, *History Of The 7th Infantry Division*, last modified 2007, accessed December 4, 2016, <http://www.7ida.us/history.asp>, 12-14; Allan R. Millett, *The War for Korea, 1950-1951: They Came from the North*, Vol. 2, 2nd ed. (Lawrence: University Press of Kansas, 2010), 284-290, 334-344.

¹³ McGrath, *Scouts Out!*, 148-149.

reconnaissance or security operation for an entire division. Both armored or infantry divisions needed a battalion-sized headquarters to provide mission command.

The lack of mobility and maneuver differential between the reconnaissance force and the supported force was another deficiency identified during the Korean War. Several years after the Xth Corps and Eighth Army's attack to the north, General James Gavin reflected on the advance to the Yalu River, writing:

Cavalry patrols should then have been on their way to the Yalu; likely concentration areas for enemy forces in North Korea should have been scouted out and the Yalu crossings kept under surveillance. With a properly composed and balanced cavalry force this would have been entirely practicable if we only had foreseen the need. Instead, the divisions of General Walker moved blindly forward, not knowing from road bend to road bend, and hill to hill, what the future held in store for them.¹⁴

General Gavin would later offer a solution for the ill equipped reconnaissance forces: air cavalry.

In reaction to the experiences of the Korean War and the increased capabilities of helicopter technology, the US Army tested and later deployed an airmobile division. The 1st Cavalry Division deployed to the Republic of Vietnam in 1965. For maneuver, the 1st Cavalry Division had three subordinate airmobile brigades and an air cavalry squadron, 1-9 Cavalry. 1-9 Cavalry had one ground cavalry troop equipped with jeeps and three air cavalry troops equipped with observation helicopters, lift helicopters, and attack helicopters. In 1970 during Operation Toan Thang 43, 1st Cavalry Division attached "H" Company, 75th Rangers and the 62nd Combat Tracking Team to 1-9 Cavalry.¹⁵

In the spring of 1970, 1st Cavalry Division planned an attack into the North Vietnamese Army support area inside Cambodia, named Operation Toan Thang 43. General Robert Shoemaker planned and commanded the operation. The purpose of the operation was to keep the North Vietnamese Army on the

¹⁴ James Gavin, "Cavalry and I Don't Mean Horses," *Harpers Magazine*, April 1954, 55.

¹⁵ US Department of the Army, *Field Manual (FM) 17-37, Air Cavalry Squadron* (Washington DC: Government Printing Office, 1969), 7-1 – 7-4; 1st Cavalry Division (Airmobile), *Combat After Action Report For Cambodian Campaign*, 1970, K-1 – K-4. The author located *Combat After Action Report For Cambodian Campaign* in the Combined Arms Research Library at Fort Leavenworth, KS.

defensive in the area by attacking into their rear area and destroying or capturing North Vietnamese supplies and disrupting command and control nodes. First, 1-9 Cavalry identified and suppressed enemy forces in the area of operations. Then an airborne brigade from the Army of the Republic of Vietnam moved by helicopter and secured key terrain. Once the Airborne Brigade took off from South Vietnam, the 11th Armored Cavalry Regiment and 3d Brigade, 1st Cavalry Division attacked into Cambodia and linked up with the Airborne Brigade. 2-47 Mechanized Infantry Battalion and 2-34 Armor Battalion seized Highway 7 to prevent the North Vietnamese from using the highway. Finally, 11th Armored Cavalry Regiment exploited initial success by attacking along Highway 7. After the initial attacks, Task Force Shoemaker and 1-9 Cavalry focused on finding and destroying supply caches in the area. 1-9 Cavalry found the largest cache of the operation before passing it off to follow on forces.¹⁶

1-9 Cavalry performed well during the Vietnam War but was not equipped or organized to fight for information on the ground and was vulnerable to ground fire. A previous commander of 1st Cavalry Division, Major General Harry W.O. Kinnard remarked upon an earlier operation, writing "...we began to realize the intelligence we gained from enemy ground fire directed against our choppers. The pilots would not be likely to agree this was a preferred way to learn of the enemy presence..."¹⁷ During Operation Toan Thang 43, 11th Armored Cavalry discovered a defensive position, which the enemy prepared to defeat a helicopter-based force such as 1-9 Cavalry. 11th Armored Cavalry Regiment defeated the enemy defense with mass artillery attacks and an armored assault.¹⁸ The artillery and armor attack was undoubtedly a better approach than flying helicopters into the area to see if the enemy shot at them. Two decades later the US Army would fight with division cavalry combining both air and ground cavalry formations to significant effect.

¹⁶ John M. Shaw, *The Cambodian Campaign: The 1970 Offensive and America's Vietnam War* (Lawrence, KS: University Press of Kansas, 2005), 69.

¹⁷ Harry W.O. Kinnard, "A Victory in the Ia Drang: The Triumph of a Concept," *Army*, September 1967, 78.

¹⁸ Shaw, *Cambodian Campaign*, 76.

In the 1980s, the US Army transformed its division structures to include both ground and air reconnaissance under one squadron. The name of the reorganization was the Division 1986. The Armor Center conducted a study and recommended each squadron have three ground troops and two air troops. Also, the Armor Center recommended equipping each ground troop with two cavalry fighting vehicle platoons and two tank platoons. Due to concerns about cost by senior leaders, the Division 1986 concept for the cavalry squadron included only two ground troops, two air troops, and no tanks. Division 1986 also increased expectations of the division cavalry squadrons to conduct reconnaissance, security and economy of force missions.¹⁹ In 1991, the Division 1986 Concept was combat tested in the Persian Gulf War.

1-4 Cavalry Squadron was the first element of the 1st Infantry Division to cross the berm into Iraq in 1991. The Army organized and equipped 1-4 Cavalry under the Division 1986 concept with the following exceptions. First, the squadron formed an aviation maintenance troop called "E" Troop to provide more oversight of aircraft maintenance and allow the air cavalry troop commanders to focus more on operations than maintenance and establishing forward arming and refueling points. Second, in the process of receiving new M1A1 tanks, 1st Infantry Division found it had nine more tanks than it planned for which it gave to 1-4 Cavalry upon arrival in Saudi Arabia.²⁰

1-4 Cavalry performed all the missions of a cavalry squadron laid out in the Division 1986 concept. Upon arriving in Saudi Arabia in January 1990, 1-4 Cavalry screened ahead of the 1st Infantry Division Support Area, located within 30 kilometers of the Iraqi border. The squadron had to screen a 70-kilometer frontage. This task would have been impossible without the combination of ground and air scouts. The ground scouts also employed ground surveillance radar, which queued ground and air scouts to identify what was moving. In this way, 1-4 Cavalry identified and defeated several Iraqi

¹⁹ John L. Romjue, *The Army of Excellence: The Development of the 1980's Army*, The TRADOC Historical Monograph Series (Washington, D.C.: Center of Military History, 1993), 94-96.

²⁰ Stephen A. Bourque and John W. Burdan, *The Road to Safwan: The 1st Squadron, 4th Cavalry in the 1991 Persian Gulf War* (Denton, TX: University of North Texas Press, 2007), 21-25.

reconnaissance patrols that ventured into Saudi Arabia.²¹ When 1st Infantry Division conducted its attack into Iraq, 1-4 Cavalry reconnoitered ahead. During pauses in operations, 1-4 Cavalry screened for 1st Infantry Division. 1-4 Cavalry enabled the 1st Infantry Division to maintain a tempo surpassing that of the Iraqi Army. Over a decade later, 3d Infantry Division and 3-7 Cavalry invaded Iraq again, repeating 1st Infantry Division's and 1-4 Cavalry's remarkable success.

Between 1991 and 2003, the US Army division and its cavalry squadron evolved its organization and equipment while keeping its training focus on being able to fight for information. The cavalry squadron had an administrative control relationship with the aviation brigade. By 2003, the division cavalry squadron consisted of a headquarters and headquarters Troop, three ground cavalry troops, two air cavalry troops and an aviation service troop. The addition of the aviation service troop made permanent the troop 1-4 Cavalry Squadron and 1st Infantry Division created during the Persian Gulf War. Each ground cavalry troop had two scout and two tank platoons. The US Army modernized its digital communication systems so Soldiers could send information digitally and gain increased awareness of where they and their fellow Soldiers were.²²

3d Infantry Division led Vth Corp's attack from Kuwait to Baghdad in 2003. 3d Infantry Division used its division cavalry squadron, 3-7 Cavalry, to conduct reconnaissance and security operations to its front and flanks. Vth Corps and 3d Infantry Division estimated relatively little resistance would be in the cities of the south such as As Samawah and Najaf. 3d Infantry Division tasked 3-7 Cavalry to determine if the enemy had withdrawn from the city and to secure key terrain for the rest of the division. 3-7 Cavalry linked up with a Special Operations Force Surveillance Team outside of As Samawah. The Special Operations Force Team reported both Republican Guard Forces and paramilitary forces were inside the town. 3-7 Cavalry reconnoitered the city and quickly made contact with a large number of paramilitary forces. Over the next several days, 3-7 Cavalry secured key terrain along routes and assisted in route

²¹ Bourque and Burdan, *Road to Safwan*, 68-77.

²² Lacey, *Takedown*, 44-45. Cameron, *To Fight Or Not To Fight?*, 353-356.

security after handing off a portion of the fight around As Samawah to 3d Brigade, 3d Infantry Division.²³ 3-7 Cavalry's operations at As Samawah and Najaf helped convince the Ba'ath Party leadership and Saddam Hussein, that 3d Infantry Division was trying and failing to seize a town between the Tigris and Euphrates River. In actuality, 3d Infantry Division maneuvered its main body to the west to move quickly north to Baghdad.²⁴

As 3d Infantry Division continued its attack through the Karbala Gap, crossed the Euphrates River and attacked Baghdad, 3-7 Cavalry guarded the northern flank of the division. The US Air Force identified and attacked a tank battalion just north of 3-7 Cavalry's guard. After the attack, 3-7 Cavalry investigated to ensure the Air Force destroyed all the enemy tanks. To their surprise, 3-7 Cavalry found that most of the tanks not only survived but were able to fire at 3-7 Cavalry. Using scouts, tanks, and helicopters, 3-7 Cavalry defeated the tanks and allowed 3d Infantry division to remain focused on its operations to seize Baghdad.

3d Infantry Division and 3-7 Cavalry performed well and adapted to the changing situation providing critical information, time and space for 3d Infantry Division. 3-7 Cavalry fought irregular forces and conventional forces. The squadron adapted to changing situations. Only experience on the ground could provide determine if the local population was friendly or hostile. 3-7 Cavalry incorporated both ground and aerial reconnaissance capabilities allowing it to cover large areas and continue to operate when the weather grounded aircraft. The tanks in 3-7 Cavalry enabled the squadron to survive initial contact when it discovered the tank battalion was not destroyed and had to fight outnumbered to prevent the tanks from disrupting the rest of 3d Infantry Division's operations.²⁵ Overall, this balanced squadron blended many of the capabilities that we need today.

²³ Lacey, *Takedown*, 44-59, 76-82, 89-102. Gregory Fontenot, E. J. Degen, and David Tohn, *On Point: The United States Army in Operation Iraqi Freedom* (Fort Leavenworth, Kansas: Combat Studies Institute Press, 2004), 123-132, 196-208.

²⁴ Lacey, *Takedown*, 83-88.

During the last 100 years of evolving organization and equipment of US Army division reconnaissance and security forces trends emerged. First, divisions need reconnaissance and security forces capable of fighting for information. The need to fight for information was clear in North Africa when divisions such as 1st Armored Division found increased lethality and tempo of operations on the battlefield meant stealthy reconnaissance was not always possible and scouts needed to be able to survive contact with the enemy. Adding tanks to reconnaissance and security forces proved effective from World War II through the 2003 invasion of Iraq. Second, ground reconnaissance is a requirement but adding air, and technical reconnaissance increases the area in which a reconnaissance and security force can operate. Organizations such as the observation airplane squadrons provided an option when conditions prevented ground operations, but some divisions still experimented with forming their ground-based scout detachments. In Vietnam and Cambodia, the air cavalry squadron offered advantages in mobility but would not have survived long against a threat with significant anti-air capabilities. Combining ground, air and technical reconnaissance capabilities allowed the division cavalry squadron to cover large areas and use complementing capabilities all within a single headquarters. Third, as General James Gavin points out, there must be a maneuver differential. Cavalry must operate faster than both the enemy and supported division. Since General Gavin wrote his article, the US Army tried to accomplish this with combinations of vehicles and aircraft. Finding the right balance is critical for effective division cavalry operations. Finally, the Army should organize division reconnaissance and security forces to provide effective mission command for the task the division expects them to carry out. The reconnaissance company did not prove effective in the Korean War, and the Army settled on a battalion-sized force during the Cold War after experimenting with battalion-sized forces since World War II for armored divisions.

Reconnaissance and security forces need to train to conduct their assigned tasks. One of the handicaps the 1st Division scout detachments overcame is the lack of training for the tasks they were

²⁵ Fontenot, Degen, and Tohn, *On Point*, 284-287, 301, 310-311; Daniel Davis, "Fighting for Information," *Armor* Vol. CXVII, no. No. 3 (2008), accessed August 27, 2016, http://www.benning.army.mil/armor/eARMOR/content/issues/2008/MAY_JUN/ArmorMayJune2008web.pdf.

assigned. The ad hoc scout detachments undoubtedly led to on-the-job training while in combat. A problem 1st Armored Division experienced in North Africa was errors made by poorly trained junior officers and noncommissioned officers. Also, reconnaissance battalions and companies trained to conduct primarily reconnaissance and did not train for the entire range of reconnaissance and security tasks. Personnel turn-over impacted unit training before the Korean War contributing to problems with employing division reconnaissance companies and battalions. The training requirement undoubtedly grew after the Division 1986 organization that integrated multiple ground and air cavalry troops under a single squadron. Air-ground integration became something every cavalryman had to prepare for. Training will need to account for several trends in technology and warfare, combined arms at lower levels being one of them.

Theory of Future Warfare

Considering trends in technology and warfare divisions need a dedicated reconnaissance and security force. *The US Army Functional Concept for Movement and Maneuver*, published in February 2017, describes implications for future war, which are: the enemy will contest all domains, the battlefield will be lethal, terrain will be complex, and all systems will be degraded.²⁶ In his 1995 book, *Envisioning Future Warfare*, former US Army Chief of Staff General Gordon Sullivan asserts there are five trends in technology and warfare. These trends will continue through the 21st century. The trends are: lethality and dispersion, volume and precision of fire, integrative technology, mass and effects, and invisibility and detectability. General Sullivan traces these trends from antiquity through the Persian Gulf War.²⁷ The ongoing Russian aggression along its periphery validates these implications by providing concrete examples of the trends and implications in action. The implications also lead to conclusions about how a US Army division should be organized, equipped and trained.

²⁶ US Department of the Army, *TRADOC Pamphlet 525-3-6, The Functional Concept For Movement And Maneuver 2020-2040* (Washington DC: Government Printing Office, 2017), 13-15.

²⁷ Gordon Sullivan and James Dubik, *Envisioning Future Warfare* (Fort Leavenworth, KS: U.S. Army Command and General Staff College Press, 1995) 11-12.

The first implication is the enemy will contest all domains. This means divisions need to prepare to fight not only on the land but also in many domains for information. A trend in warfare is forces will use dispersion and try to remain invisible for as long as possible. Reconnaissance and security forces need to be able to survive chance contact with the enemy like 3-7 Cavalry did throughout the invasion of Iraq. One way each side tries to detect one another in Eastern Ukraine is through unmanned aerial vehicles.²⁸

Reconnaissance and security formations need to operate in the air while at the same time limiting the enemy use of the air domain. April 15, 1953, was the last time the US Army lost a Soldier to enemy air attack. In the intervening decades, the US Army assumed the US Air Force would always control the sky.²⁹ However, the Air Force may not be able to achieve air superiority before ground operations begin. The Army can no longer assume the enemy will not be able to attack from the air. The ongoing proliferation of sophisticated air defense systems and unmanned aerial vehicles will make achieving air superiority more challenging and perhaps more time consuming.³⁰

Like the air domain, the US Army now needs to concern itself with activity in the Cyber domain. US Army divisions do not currently have permission or capability to conduct offensive cyber operations but, as the capabilities evolve and proliferate, cyber will be a domain the Army expects divisions to maneuver in. Cyberspace presents many opportunities for reconnaissance. Soon, the internet will have over 50 billion devices on it. Many of the devices connected to the internet can take pictures and videos. Accessing sensors connected to the internet would provide significant intelligence; however, information overload will be a problem in analyzing all the information collected.³¹

²⁸ Philip A. Kraber, "Lessons Learned" *From The Russo-Ukrainian War Personal Observations* (The Potomac Foundation, 2016), accessed November 4, 2016, <https://prodev2go.files.wordpress.com/2015/10/rus-ukr-lessons-draft.pdf>, 12-16.

²⁹ Peter Grier, "April 15, 1953," *Airforcemag.Com*, last modified 2011, accessed March 16, 2017, <http://www.airforcemag.com/MagazineArchive/Pages/2011/June%202011/0611april.aspx>.

³⁰ *TRADOC Pamphlet 525-3-6, The Functional Concept For Movement And Maneuver 2020-2040*, 10; Kyle Mizokami, "Weapons of War: The Five Deadliest Air Defense Missiles," *The National Interest* (July 29, 2014), accessed February 14, 2017, <http://nationalinterest.org/feature/weapons-war-the-five-deadliest-air-defense-missiles-10969>.

The second implication is the battlefield will be lethal. Two trends identified by General Sullivan support this implication. First, the volume and precision of direct and indirect fire will continue to increase. Second, increased lethality leads to increased dispersion on the battlefield.³² This is not a recent revelation. Prussian Army officer Wilhelm von Scherff identified the theory of the empty battlefield after his experience in the Franco-Prussian War. The theory states that combatants will disperse more as weapons become more lethal to mitigate the increased effects of modern weapons.³³

Lethal battlefields and the trend of empty battlefields have several consequences for reconnaissance and security forces. General Sullivan identifies a trend toward invisibility meaning our adversaries will remain hidden for as long as possible and avoid US Army strengths.³⁴ This means the enemy will disperse weapons systems and units over wider areas and complex terrain. Increased dispersion means the ability to cover wide areas relatively quickly is increasingly important.³⁵ The Army can use aerial and technical reconnaissance and surveillance to cover large areas relatively quickly but proliferation of enemy air defense systems makes this a challenge. In addition, technical reconnaissance units lack the ability to secure themselves so commanders must couple ground reconnaissance units with technical reconnaissance units to be effective. Finally, because battlefields are increasingly lethal, reconnaissance and security formations need to be survivable themselves.

Finding the right balance of survivability and mobility is critical. Vehicles need armor but not to a point where they cannot cross local bridges or fit down alleyways. Recent combat in eastern Ukraine demonstrates lightly armored vehicles such as BTRs are not survivable when maneuvering in contact with

³¹ Chief of Staff of the Army Mark A. Mark A. Milley, "Dwight David Eisenhower Luncheon Association of The United States Army," *Ausa.Org*, last modified 2016, accessed October 10, 2016, <https://www.ausa.org/events/ausa-annual-meeting-exposition/sessions/dwight-david-eisenhower-luncheon>.

³² Sullivan and Dubik, *Envisioning Future Warfare*, 11-13.

³³ James J. Schneider, "The Theory of the Empty Battlefield," *The RUSI Journal*, volume 132, no. 3 (1987), 37.

³⁴ Sullivan and Dubik, *Envisioning Future Warfare*, 11-12, 20-22.

³⁵ *TRADOC Pamphlet 525-3-6, The Functional Concept For Movement And Maneuver 2020-2040*, 11-13.

the enemy. However, the light armored vehicles are good for transporting large numbers of Ukrainian Soldiers while out of direct fire contact. Tanks in Eastern Ukraine are maneuvering and surviving contact with the enemy. However, tanks are vulnerable to anti-tank guided missiles.³⁶ Active defense systems offer a possible solution to direct-fire guided missiles but the US Army has not fielded any of these systems yet.³⁷ Mobility will enhance survivability but reconnaissance and security formations cannot count on mobility alone as the 81st Armored Reconnaissance Battalion found out at the Battle of Kasserine Pass.³⁸ Being mobile includes movement both in contact and out of contact, in open terrain and complex terrain.³⁹

In the future enemies will seek to mitigate our strengths by operating in complex terrain. Increased urbanization and the growth in both the size and number of megacities provide ample complex terrain for the enemy to fight in. Two drivers are increasing urbanization of the world population and the enemy desire to offset US military strengths.⁴⁰ Although the US Army has operated in urban terrain since

³⁶ Kraber, "Lessons Learned," 15, 17-18, 22-27; Lester W. Grau and Charles K. Bartles, *The Russian Way of War*, accessed December 10, 2016, http://nsiteam.com/social/wp-content/uploads/2017/01/TheRussianWayOfWar_low.pdf, 182-185, 190-201.

³⁷ TRADOC Pamphlet 525-3-6, *The Functional Concept For Movement And Maneuver 2020-2040*, 10-13; Kris Osborn, "Army Accelerates Active Protection Systems Technology," *Defense Systems*, October 13, 2016, accessed February 14, 2017, <https://defensesystems.com/articles/2016/10/13/activeprotection.aspx>; John Gordon IV et al., *Comparing U.S. Army Systems with Foreign Counterparts: Identifying Possible Capability Gaps and Insights from Other Armies*, 2015, Rand Corporation, 5.

³⁸ US Army Cavalry School, *Cavalry Reconnaissance, Number One*, 1.

³⁹ In addition, indirect fire is increasingly lethal. Eighty-five percent of casualties in Eastern Ukraine come from artillery. In July 2014, Russian artillery targeted two Ukrainian mechanized infantry battalions. Russian artillery was both accurate and high enough volume to destroy both Ukrainian battalions including vehicles, equipment and Soldiers in less than 3 minutes. The Russian Army is continuing to develop the range of its rocket artillery, increasing from 20 kilometers to 45 kilometers. Kraber, "Lessons Learned," 15, 17-18, 22-27; Grau and Bartles, *The Russian Way of War*, accessed December 10, 2016, http://nsiteam.com/social/wp-content/uploads/2017/01/TheRussianWayOfWar_low.pdf, 182-185, 190-201.

⁴⁰ Milley, "Dwight David Eisenhower Luncheon Association of The United States Army," <https://www.ausa.org/events/ausa-annual-meeting-exposition/sessions/dwight-david-eisenhower-luncheon>; Michael Bailey et al., *Megacities And The United States Army Preparing For A Complex And Uncertain Future*, 2014, accessed November 4, 2016, <https://www.army.mil/e2/c/downloads/351235.pdf>, 3-5. Megacities are cities with greater than 10 million inhabitants.

the Revolutionary War, megacities are different environments challenging maneuver and providing opportunities for intelligence collection.⁴¹

Megacities present challenges for divisions to maneuver and operate in. Divisions will not be able to isolate megacities physically or even psychologically because inhabitants will significantly outnumber friendly forces.⁴² Identifying all avenues of approach including surface, sub-surface and super surface will challenge divisions. Second, maneuver through megacities will be severely limited. Mounted maneuver by heavy combat vehicles will be difficult in slums. Many megacities have large slums with dubious standards for roads and public works. Lagos, Nigeria for example has slums floating on a lagoon. The urban terrain of megacities may also limit aerial maneuver because of limited landing zones and hazards such as power lines. Third, underground tunnels such as subways and sewer systems present challenges to maneuver. Enemy forces may try to use the systems to move unobserved or to cache equipment and supplies. Friendly forces maneuvering underground will have difficulty communicating and coordinating with each other and back to their headquarters. Finally, the large population and robust communication systems may present a challenge of information overload for reconnaissance and security forces. Human intelligence, signals intelligence, and open source intelligence are all concentrated in megacities.⁴³ A technical reconnaissance team will have to focus its collection efforts and will still likely have massive amounts of data to sort through. The current problem is how to analyze large volumes of information quickly. The ability to analyze large amounts of data, develop relevant and timely intelligence, and communicate it to the commander and staff will be crucial to reconnaissance and security forces.

⁴¹ Bailey, *Megacities and The United States Army*, 8; Milley, "Dwight David Eisenhower Luncheon Association of The United States Army," <https://www.ausa.org/events/ausa-annual-meeting-exposition/sessions/dwight-david-eisenhower-luncheon>.

⁴² Bailey, *Megacities and The United States Army*, 8, 19. For example, Lagos, Nigeria is an urban area over 25% larger than Rhode Island with a population of over 25 million people.

⁴³ *TRADOC Pamphlet 525-3-6, The U.S. Army Functional Concept For Movement And Maneuver*, 10-13; Bailey, *Megacities And The United States Army*, 8, 19.

The fourth implication is all systems will be degraded. This implication relates to the enemy challenging in all domains. Near-peer adversaries will try to isolate and disrupt US Army strengths, creating windows of opportunity. The Russian Army investment in electronic warfare technology and force structure and the ongoing war in Eastern Ukraine exemplify this implication. As part of its “New Look” reforms each Russian Army maneuver brigade now includes an electronic warfare company capable of jamming communications, global positioning system, and radio controlled fuses. Previously, the Russian Army held electronic warfare companies at a higher level.⁴⁴ In Eastern Ukraine, the Russian military used jamming vehicles to cut the link between Unmanned Aerial Vehicle (UAV) and their controllers causing them to crash.⁴⁵

Divisions need dedicated assets at their level to conduct reconnaissance and security in environments where systems may be degraded. The ability of near-peer threats to degrade US Army systems necessitates the need for reconnaissance and security forces at each level including division. US Army divisions cannot rely on higher headquarters for assets when systems are degraded. The video feed of a theater-level unmanned aerial vehicle may not make it to a division headquarters subjected to electronic attack. A division may even have a breakdown in communication with a corps headquarters negating the corps level reconnaissance and security capability. Likewise, the division reconnaissance and security formation needs to be capable of operating independently on the battlefield. In addition to a robust sustainment capability, reconnaissance and security forces need to be able to integrate ground, air, and technical assets. They also need to be able to conduct rapid analysis of the information collected and be able to communicate the most critical information back to the division staff and commander.

Trends in technology and warfare and the implications for future warfare lead to conclusions for organizing and equipping a division reconnaissance and security force. A division reconnaissance and

⁴⁴ Grau and Bartles, *The Russian Way of War*, 41-43, 241-252; Lester W. Grau and Charles K. Bartles, “Air Defense And Electronic Warfare,” 2017, 15. This document is a Power Point Presentation in author’s possession.

⁴⁵ Kraber, “Lessons Learned,” 15.

security force needs robust dismount teams to fight for information in large urban areas such as megacities. These forces will need vehicles that balance survivability against increasingly lethal fires while maintaining an advantage in movement and maneuver. Vehicles too large and heavily armored will not provide the mobility needed in urban areas. Vehicles equipped with active defense systems are one answer. Division reconnaissance and security forces should integrate air and technical means as organic elements within the formation. This will help allow access to a wide range of information available such as through Open Source Intelligence, Signals Intelligence and Human Intelligence. Collection of this information will assist in the division maneuvering in cyberspace as well as land and air.

Division reconnaissance and security forces will need to train to use all of these technologies and dissimilar systems. Clearly, air-ground integration remains an important aspect of training. However, training the integration of technical reconnaissance units and systems is also important. Using new technical collection systems requires specialized Soldiers, mostly from the military intelligence community. Operating in ambiguous environments when the enemy is jamming communication and subordinate leaders are operating while dispersed creates training demands. Leaders need to be comfortable applying combat power and coordinating with supporting and adjacent organizations with limited communication back to a parent headquarters. This will test our ability to practice mission command. Currently, the disparate ground, air, and technical reconnaissance units do not routinely train together unless local commanders direct it. Organizing technical reconnaissance teams into the reconnaissance and security force would help make integration training and employment more routine. US Army doctrine for ground, air, and technical reconnaissance units working together already exists. We just need to organize and train this way.

Doctrine

US Army doctrine provides a theory for action based on both past US Army experiences and how the Army's concept of the future of warfare. US Army doctrine describes the need for divisions to shape the battlefield for their subordinate Brigade Combat Teams through reconnaissance and security

operations in the division deep area. The Army uses the battlefield framework deep-close-support to delineate where the division and its subordinate Brigade Combat Teams are responsible for planning and executing operations. Divisions are responsible for planning and executing deep operations while Brigade Combat Teams plan and execute the division close fight. The current operating environment requires divisions to employ an integrated force of ground, air, and technical reconnaissance in the deep area. Divisions need a reconnaissance and security force capable of fighting for information and of defeating the enemy advanced guard. During the Army force structure transformation between 2000 and 2016, both divisions and corps lost dedicated reconnaissance and security organizations.⁴⁶ Divisions must now organize their own reconnaissance and security force from subordinate brigade combat teams.

Division reconnaissance and security operations typically occur in the division deep area. Although a subordinate brigade combat team may answer division information requirements, identify a division target, or conduct a security task in their assigned area of operations, this is part of the brigade responsibility not a division responsibility. Divisions are responsible for articulating the division collection plan and resourcing brigades to execute the plan in their assigned areas. In November 2016, the Army published a new version of ADP 3-0, *Operations* restating the operational framework of deep-close-support areas. This operational framework evolved from deep-close-rear and later deep-close-security. The concept behind this framework remains relatively unchanged despite slight differences in naming and definition. The description of this framework in the most recent version of ADP 3-0 states the deep area is the area not assigned to subordinate maneuver forces and where the commander influences the enemy's ability to commit forces in a coherent manner. The close area is the area assigned to subordinate units. The support area is the area where primarily support functions occur.⁴⁷ The deep area

⁴⁶ US Department of the Army, *Army Techniques Publication (ATP) 3-91, Division Operations* (Washington DC: Government Printing Office, 2014), 8-6; Cameron, *To Fight or Not to Fight?*, 465-466.

remains under division responsibility while the close area is the responsibility of subordinate maneuver commanders. The deep area is where the division shapes the fight for subordinate maneuver units.⁴⁸

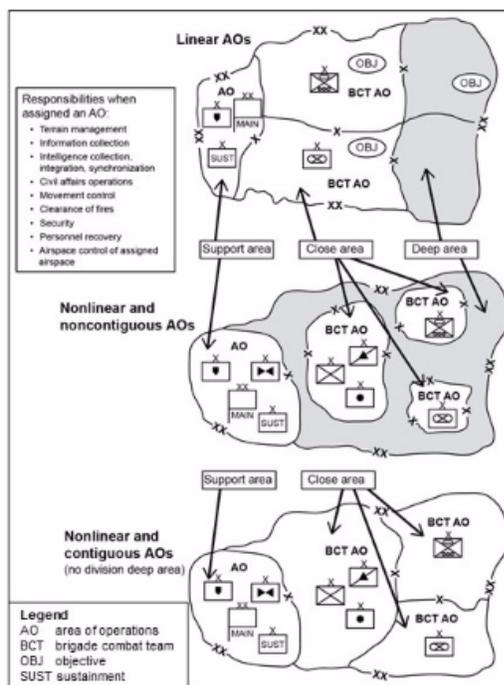


Illustration 1. Example of Deep-Close-Support Area Framework. Army Techniques Publication (ATP) 3-94.2, *Deep Operations*, (Washington, DC: Government Printing Office, September 2016), 1-3.

Although the Army updated its doctrine, divisions still struggle to plan and coordinate deep operations. During the wars in Iraq and Afghanistan, the Army focused on counter-insurgency operations. The Army conducted counter-insurgency operations primarily at the small unit level, below division size. As the role of US forces in Iraq and Afghanistan changed into an advise and assist capacity, the US Army refocused on defeating near-peer threats. This change in emphasis put renewed effort into division level operations. In September 2016, the Army published ATP 3-94.2, *Deep Operations* to update and clarify the doctrine for deep operations at the division and corps level. In recent warfighter exercises conducted

⁴⁷ Defining the deep area by saying subordinate maneuver forces do not operate there is overly restrictive since commanders will likely try to influence uncommitted enemy forces through a combination of ground and air maneuver and fires. The author believes ground maneuver within the deep area by reconnaissance and security forces owned by the division does not change the deep area. US Department of the Army, Army Doctrine Publication 3-0, *Operations* (Washington DC: Government Printing Office, 2016), 10-11.

⁴⁸ ADP 3-0, 10-11.

by the Mission Command Training Program, trainers identified a trend in division staff having difficulty planning, coordinating, and synchronizing deep operations. Specifically, divisions struggle to plan and coordinate fires, reconnaissance, and security operations in deep areas effectively.⁴⁹

Divisions undertake a variety of operations in the deep area but they are all focused on one purpose. “The purpose of deep operations is to prevent the enemy from employing uncommitted forces or capabilities in an effective manner.”⁵⁰ This is how the division shapes the fight for the brigades. The operations undertaken are primarily a combination of reconnaissance, and security tasks enabling fires and other actions shaping the fight. The *Deep Operations* manual lists them as: information collection, target acquisition, ground and air maneuver, fires, cyber electromagnetic activities, and information operations.⁵¹

Divisions need to be capable of conducting four forms of reconnaissance and integrating the fifth form, special reconnaissance. FM 3-90-2 describes the tasks and characteristics associated with the forms of reconnaissance. The five forms of reconnaissance are zone reconnaissance, route reconnaissance, area reconnaissance, reconnaissance in force, and special reconnaissance. Divisions need to coordinate with special operations forces within and adjacent to their area of responsibility but otherwise do not need to concern themselves with special reconnaissance.⁵² Zone reconnaissance encompasses both area and route reconnaissance tasks since these are sub-tasks within zone reconnaissance. This leaves zone reconnaissance and reconnaissance in force for further consideration.

The task zone reconnaissance is of particular interest for divisions for several reasons. When the enemy situation is vague, divisions conduct zone reconnaissance before committing forces. The

⁴⁹ Edward Bohneemann, *MCTP FY14 Trends in a Decisive Action WFX*, n.d., 11-12, 25. This document is in author’s possession.

⁵⁰ US Department of the Army, *Army Techniques Publication (ATP) 3-94.2, Deep Operations* (Washington DC: Government Printing Office, 2016), 1-4.

⁵¹ ATP 3-94.2, 1-4.

⁵² ATP 3-91, 8-1 – 8-2.

reconnaissance force collects information about the enemy and terrain. Zone reconnaissance includes route reconnaissance and area reconnaissance within the designated zone. Zone reconnaissance is normally more time consuming and potentially more resource intensive than area or route because of the usually higher demand for information resulting from a vague situation. Another consideration is zone reconnaissance requires the unit conducting the task to operate within the zone assigned as opposed to an area recon, which does not have such a requirement. Units conducting a zone reconnaissance will need indirect fire to support them if enemy is within the zone. In addition, integrating technical reconnaissance and surveillance assets can help in detection of enemy units and equipment. Integrating aviation into a zone reconnaissance plan will help the reconnaissance organization cover large zones however they cannot collect all types of information commanders may require.⁵³

Like zone reconnaissance, reconnaissance in force requires the ability to fight. Of all the reconnaissance tasks, it is the only task explicitly designed to make direct and indirect fire contact with the enemy. Divisions conduct reconnaissance in force in order to find out enemy strengths and weaknesses when other means of information collection are not possible. Because the reconnaissance organization is intentionally making direct and indirect fire contact with the enemy, an extraction plan or a plan to exploit success is necessary. Because of the requirements of a reconnaissance in force, divisions normally task battalion-sized and larger organizations with this mission. However, the more ambiguous the enemy's situation, the more combat power is need for a successful reconnaissance in force.⁵⁴ It is also prudent to have a well-integrated information collection plan to identify enemy nodes such as command centers, artillery positions, and the location of reserves.

In addition to reconnaissance, divisions need to plan security operations in order to deny enemy reconnaissance and prevent the enemy from surprising the division. There are five security tasks local

⁵³ US Department of the Army, *Field Manual (FM) 3-90-2, Reconnaissance, Security, and Tactical Enabling Tasks Volume 2* (Washington DC: Government Printing Office, 2013), 1-7 – 1-9.

⁵⁴ FM 3-90-2, 1-7 – 1-10.

security, area security, screen, guard, and cover. All units conduct local security involving activities taken to secure your own unit. Commanders normally assign area security tasks in the support and close area to provide means for commanders to secure supply bases and lines of communication. Commanders assign screen, guard, and cover to protect the main body. These tasks require increasing amounts of combat power and achieve greater levels of protection for the main body. Screen requires the least combat power while offering the least protection while a cover requires the most combat power while offering the most protection. As commanders dedicate more combat power to security tasks they are taking combat power away from the close fight. Divisions require only a battalion-sized force to screen or conduct a flank or rear guard. FM 3-90-2 recommends a brigade combat team sized force to conduct an advanced guard.⁵⁵ In addition, divisions need a reinforced brigade combat team to perform a cover. Currently, only one brigade combat team in the Army has the task to train for a guard or cover mission.⁵⁶ In addition, because of the need for mobility infantry brigade combat teams are normally not suitable for guard and cover operations as they would need large amounts of reinforcements and do not possess the inherent differential in maneuverability to complete the tasks.⁵⁷

Division security forces should be capable of conducting a guard and if augmented conduct an advanced guard. First, the task of guard includes all the tasks associated with a screen. In addition to providing early warning and defeating enemy reconnaissance forces, a guard force must be able to fight for time and information to include defeating or fixing the lead elements of the enemy main body. Guard forces use both direct and indirect fire to accomplish their mission. To do this guard forces must use indirect fires from the protected force.⁵⁸ Second, a security force can employ both offensive and

⁵⁵ FM 3-90-2, 2-4 – 2-5.

⁵⁶ 1/4 Stryker Brigade Combat Team, *1/4 SBCT Reconnaissance and Security Excursion Running Brief* (2016). *1/4 SBCT Reconnaissance and Security Excursion Running Brief* is a Power Point in author's possession.

⁵⁷ ATP 3-91, 8-10 – 8-11.

⁵⁸ FM 3-90-2, 2-10 – 2-19.

defensive guards in any direction to protect the main body unlike a screen. Third, divisions can more easily resource a guard force than a covering force because of the larger force and capability requirements of a cover force. Covering forces must operate independently of the main body in order to accomplish their tasks. The below table provides an estimate for what sized security force is needed at each echelon. The Army published the table in 2013, so it still shows Battlefield Surveillance Brigades but these units no longer exist in the Army.

Table 1. Typical size of security forces for a given mission and echelon

Echelon	Security mission			
	Screen	Advance guard	Flank/rear guard	Cover
Battalion/task force	Platoon	CO/TM		
Brigade combat team	CO/TM	BN TF	CO/TM	CAB (+)/ BN TF(+)
Division	BFSB recon squadron CAB/BN TF	BFSB recon squadron (+) BCT	BFSB recon squadron (+) CAB/BN TF	BFSB recon squadron (+) BCT(+)
Corps	CBT AV BDE CAB/BN TF BCT	Division ABCT/SBCT	Division ABCT/SBCT CAB/BN TF	Division (+) ABCT (+)
Echelons above corps (joint force land component/numbered Army)	CBT AV BDE ABCT/SBCT	Division (+) corps	CBT AV BDE ABCT/SBCT	Division (+) corps
ABCT armored brigade combat team AV aviation BCT brigade combat team BDE brigade BN TF battalion task force		BFSB battlefield surveillance brigade CAB combined arms battalion CBT combat CO/TM company/team SBCT Stryker brigade combat team		

Source: Data from *Field Manual (FM) 3-90-2, Reconnaissance, Security and Tactical Enabling Tasks volume 2*, (Washington, DC: Government Printing Office, March 2013), 2-5.

Since the Army published the latest version of *Division Operations* in October 2014, the Army eliminated almost all of the dedicated reconnaissance and security force structure above brigade combat team level. Prior to modularization in the mid-2000s, each division had a division cavalry squadron that performed reconnaissance and security tasks.⁵⁹ In addition, before modularization, corps had armored cavalry regiments, which performed reconnaissance and security tasks for corps. In 2011, the Army

⁵⁹ Cameron, *To Fight or Not to Fight?*, 465-466.

converted the last armored cavalry regiment into a Stryker Brigade Combat Team.⁶⁰ The Army replaced armored cavalry regiments with battlefield surveillance brigades. Like armored cavalry regiments, battlefield surveillance brigades were primarily responsible for reconnaissance to a corps, but divisions could request them. In fact, *The United States Army Functional Concept for Movement and Maneuver* published in 2010 states divisions routinely employ battlefield surveillance brigades.⁶¹ However, the Army eliminated all battlefield surveillance brigades in 2016.⁶² Along with the elimination of battlefield surveillance brigades, the Army eliminated long-range surveillance companies. With the elimination of battlefield surveillance brigades, the Army is now experimenting with the concept of reconnaissance and security brigade combat team. The reconnaissance and security brigade combat team concept is for the Army to designate a brigade combat team to train and organize itself to conduct reconnaissance and security tasks for a corps. As part of the concept, the brigade combat team will receive additional attachments of aviation, artillery and enablers. III Corps and 1st Stryker Brigade Combat Team (SBCT), 4th Infantry Division are currently testing this concept. After training reconnaissance and security tasks for a year, the Army will test this concept when 1/4 SBCT completes a training rotation at the National Training Center in Fort Irwin, California.⁶³ There are other concepts to fill the role once held by the battlefield surveillance brigade for the corps; however, no concept is as far along as the reconnaissance and security brigade combat team.⁶⁴ This still leaves a gap in dedicated reconnaissance and security organization for divisions.

⁶⁰ Heather Graham-Ashley, "3rd ACR transitions to Strykers, changes name," November 30, 2011, accessed November 9, 2016, https://www.army.mil/article/70060/3rd_ACR_transitions_to_Strykers__changes_name.

⁶¹ US Department of the Army, *TRADOC Pamphlet 525-3-6, The US Army Functional Concept For Movement And Maneuver 2016-2028* (Washington DC: Government Printing Office, 2010), 10.

⁶² ATP 3-91, 8-5.

⁶³ 1/4 Stryker Brigade Combat Team, *1/4 SBCT Reconnaissance and Security Excursion Running Brief* (2016).

⁶⁴ Cavalry Group Organization (revised V.2 and COA 3), September 2016. Cavalry Group Organization (revised V.2 and COA 3) is a white paper in author's possession.

Reviewing doctrine offers insights into organizing and equipping a division reconnaissance and security force. The force must be capable of fighting for information, time, and space in the division deep area. This means the reconnaissance and security force must have its own logistics to support such operations. The requirement to fight for information comes from the key tasks expected zone reconnaissance, reconnaissance in force, and guard. Again, ground reconnaissance will be the dominant force in order to conduct all-weather reconnaissance and security while being able to fight. However, air and technical reconnaissance will significantly increase the ability of the reconnaissance and security force to cover large areas and prioritize areas of interest for the ground forces through reconnaissance management techniques such as queuing, mixing, and redundancy. Although air assets can aid in at least a portion of the mobility differential, the ground element also needs a mobility differential to get into the division deep area and have time to conduct its mission. Finally, as table 1 shows a Battalion or Squadron-sized force is most appropriate to provide mission command for a division reconnaissance and security force.

ATP 3-91, *Division Operations* recommends three different courses of action for divisions to conduct reconnaissance and security operations. However, these courses of action each have a flaw. First, *Division Operations* recommends divisions can direct each of their subordinate brigades to answer division information requirements within their area of responsibility. The problem with this course of action is no force is responsible for shaping the division deep area. By definition, divisions do not assign brigade combat teams to this area.⁶⁵ Shaping the fight through reconnaissance and security is critical to determine the outcome of battles.⁶⁶ The first course of action is not viable if there is a division deep area. The second course of action is for the division to task a subordinate brigade to answer the division information requirements and conduct security tasks. This means the assigned brigade combat team

⁶⁵ ADP 3-0, 10-11.

⁶⁶ David G. Perkins, "Multi-Domain Battle: Joint Combined Arms Concept For The 21st Century Association of The United States Army," *Ausa.Org*, last modified 2016, accessed November 23, 2016, <https://www.ausa.org/articles/multi-domain-battle-joint-combined-arms-concept-21st-century>.

would act as a reconnaissance and security brigade combat team for the division. Brigade combat teams do not train to conduct reconnaissance and security tasks. Furthermore, a division would dilute the close fight if it were to execute this course of action. The third course of action is to detach a cavalry squadron from a subordinate brigade combat team to work directly for the division answering division information requirements and conducting security tasks.⁶⁷ Depending on the situation, a detached cavalry squadron may not provide the necessary capability to answer the division information requirement and conduct security tasks. In addition, by detaching a subordinate brigade's cavalry squadron the division would be denying the brigade's ability to conduct reconnaissance and security.

US Army divisions need a dedicated reconnaissance and security force. The three courses of action proffered in *Division Operations* are flawed. The courses of action do not take into account the organization and training required for the tasks expected by a division. Another option is for a division to request a reconnaissance and security force from a corps. This assumes there is a R&S BCT available. US Army Forces Command is experimenting with a corps reconnaissance and security force by changing the training tasks and adding to the organization of 1/4 SBCT. This method is still undergoing trials. It is unclear if a R&S BCT would be available or would be able to send a smaller element to conduct reconnaissance and security for a division. For these reasons, the US Army should assign division cavalry squadrons to each division.

Organizing, Equipping, and Training a Division Cavalry Force

The Army should design a division reconnaissance and security force to conduct reconnaissance and security tasks for the division in the division deep area. The tasks a division needs to conduct are: zone reconnaissance, reconnaissance in force, and guard. To conduct these tasks, the Army should organize, equip, and train the force keeping in mind four characteristics that will make the force capable of the reconnaissance and security tasks divisions need. First, the organization needs to be able to fight for

⁶⁷ ATP 3-91, 8-5.

information and time. Second, divisions need combined ground, aerial, and technical reconnaissance abilities. Third, the division reconnaissance and security force needs to move faster both in and out of contact with the enemy and faster than the enemy or the division main body. Fourth, division reconnaissance and security needs to be capable of providing the mission command over a unit capable of the reconnaissance and security tasks expected by the division.

US Army experience in the last 100 years shows the need for a reconnaissance and security force being able to fight for information and time. Post World War II analysis showed reconnaissance units engaged in security operations even more frequently than reconnaissance.⁶⁸ US Army experience proved the need to fight for information again in 2003 when 3d Infantry Division marched north to Baghdad. Doctrine also requires division reconnaissance and security forces to be able to fight for information. Units conducting zone reconnaissance, reconnaissance in force, and a guard will encounter enemy forces. As the volume and precision of fires increase this means the reconnaissance and security force needs to be more resilient. This means reconnaissance and security forces will likely need tanks integrated into the organization.

Divisions need combined ground, aerial and technical reconnaissance abilities. US Army experience in Iraq proved the value of both ground and air reconnaissance working together. The Army later experimented with the Battlefield Surveillance Brigade, which combined ground and technical reconnaissance abilities. However, the Battlefield Surveillance Brigade was short lived because the ground reconnaissance element was not capable of fighting for information. Ground forces are the primary means of conducting reconnaissance and security but adding aerial and technical reconnaissance assets makes the ground reconnaissance more effective at covering larger areas and concentrating effects. As invisibility and detectability technology continues to improve, integrating technical reconnaissance means will increase in importance. With increased technical reconnaissance collection comes the

⁶⁸ United States Forces General Board, European Theater, *Study Number 49: Mechanized Cavalry Units*, 1946, 6-8. This report is available through the Combined Arms Research Library at Fort Leavenworth, KS and the US Army Center of Military History.

requirement for analyzing large quantities of information quickly. Division reconnaissance and security forces will need an organic analysis capable to process all the information they collect.

Division reconnaissance and security forces need to move faster both out of contact and in contact with the enemy than the enemy or the division main body. General Gavin identified this after the Korean War. During the Vietnam War, the US Army experimented with an airmobile division and air cavalry. Airmobile divisions were mobile but had limitations when confronting an enemy with significant air defense capabilities. Further, weather and terrain could limit the effectiveness of an organization based on helicopters. Recent experiences in the Ukraine show the increasing lethality of direct and indirect fires limit the ability of light armored vehicles to maneuver in contact with the enemy. The US Army needs to balance the requirement of being able to maneuver in contact with the enemy and being mobile and sustainable. Lightly armored vehicles such as the Stryker infantry-carrying vehicle will have problems maneuvering in contact with the enemy. Heavily armored vehicles such as the Abrams tank may be too heavy for bridges and hard to support for a unit operating in the division deep area, complex terrain, and austere environments.⁶⁹ Possible solutions to this problem include a light tank, active defense systems on vehicles, and mixing capabilities within the formation. Mixing capabilities is the method first used in World War II where jeeps, halftracks, and light tanks worked together in the reconnaissance battalions. Division 1986 mixed armored vehicles with helicopters proving very successful in both the Persian Gulf War and the 2003 invasion of Iraq.

Finally, division reconnaissance and security forces need to be capable of providing the mission command over a unit capable of the reconnaissance and security tasks expected by the division. A battalion or squadron-sized unit is capable of providing the mission command needed for a division reconnaissance and security force. In World War I, the American Expeditionary Force expected corps to

⁶⁹ Kendall D Gott, *Breaking The Mold Tanks In The Cities*, 1st ed. (Fort Leavenworth, KS: Combat Studies Institute Press, 2006), IX-XI; Kyle Mizokami, "The U.S. Army Wants A New Light Tank", *Popular Mechanics*, 2017, accessed January 2, 2017, <http://www.popularmechanics.com/military/weapons/a22337/us-army-new-light-tank/>.

assign cavalry squadrons to divisions as needed. When the American Expeditionary Force could not get the number of mounts needed for each division they created one provisional squadron.⁷⁰ During World War II and the Korean War, armored divisions had reconnaissance battalions. These formations proved more capable than the infantry division's reconnaissance companies did. After the Korean War, all divisions received a battalion sized reconnaissance and security force.⁷¹ Considering the tasks and formation size requirements in Table 1, a battalion or squadron-sized force could perform most of the tasks required by a division.⁷²

A dedicated reconnaissance and security force will have unique training requirements. The integration of ground, air, and technical reconnaissance creates a unique environment for leaders to manage these different capabilities. In addition, division staffs need to train how to employ a division reconnaissance and security force. Finally, the mission essential task list for a division cavalry squadron would be different from a cavalry squadron assigned to a brigade combat team.

The first challenge of a division reconnaissance and security force is integrating the different methods of reconnaissance. Fortunately, the US Army has several schools such as the Army Reconnaissance Course and the Cavalry Leader Course that cover issues of integrating air units; however, institutional schools are only one part of Soldier and Leader training.⁷³ Unit training is an important part of developing capabilities and certifying units are ready to deploy. Ample time should be spent training not only the basic tasks of operating assigned equipment but also in integrating equipment and capabilities into overall mission accomplishment.

⁷⁰ McGrath, *Scouts Out!*, 40-42.

⁷¹ Cameron, *To Fight or Not to Fight?*, 96-98, 154-156.

⁷² FM 3-90-2, 2-5.

⁷³ "Army Reconnaissance Course," *US Army Maneuver Center of Excellence*, last modified 2017, accessed March 10, 2017, <http://www.benning.army.mil/armor/316thCav/ARC/>; "Cavalry Leader's Course," *US Army Maneuver Center Of Excellence*, last modified 2016, accessed March 10, 2017, <http://www.benning.army.mil/Armor/316thCav/CLC/>.

The second challenge will be how the division staff integrates the reconnaissance and security force into their training prior to deployment. Over 10 years have passed since the last division cavalry squadron left US Army formations. Currently, US Army divisions focus their training against a near-peer threat unless otherwise directed because of an upcoming assignment to a different mission. The War Fighter Exercises and staff training exercises provide a great opportunity to integrate all the formations a division expects to employ. Reconnaissance and Security forces need to be part of the division's plan because divisions will likely employ these forces into the division deep area. Division needs to plan and coordinate these missions and integrate them with other units operating in the deep area.⁷⁴

The reconnaissance and security force should have a mission essential task list reflecting the tasks a division will likely assign them. First, divisions will likely assign the reconnaissance tasks zone reconnaissance and reconnaissance in force. Second, divisions will likely assign the tasks screen and guard. As already discussed, screens are similar to a guard except the guard force must defeat the enemies advanced guard. The guard is a difficult task to train because it could be moving or stationary and there are many ways to execute the several types of guards. The tasks of zone reconnaissance, reconnaissance in force, screen and guard should be the mission essential tasks for a division reconnaissance and security force.

Conclusion and Recommendations

History, trends in warfare, and US Army Doctrine all show the need for a dedicated division reconnaissance and security force. Left without a dedicated reconnaissance and security force divisions in World War I, such as 1st Division created scout detachments and requested observation airplanes to aid in reconnaissance and security tasks. For the rest of the 20th century the US Army experimented with the right organization, equipment, and training for reconnaissance and security but every division had a dedicated reconnaissance and security force. By the 2003 invasion of Iraq, 3d Infantry Division employed

⁷⁴ Edward Bohnemann, *MCTP FY15 Key Observations: Decisive Action Exercises*, 2016, 24. This document is in author's possession.

a division cavalry squadron that integrated ground and air capabilities to great effect. Trends in warfare and technology show reconnaissance and security tasks will remain essential as the enemy attempts to remain hidden from US strengths in firepower. Recent combat in Ukraine highlight the lethality of the modern battlefield. The enemy of the future will continue to disperse across the battlefield and will use complex terrain such as megacities to conceal its location and preserve its combat power. Current US Army doctrine describes the need for reconnaissance and security forces in the deep area to shape the division close fight.

Having established that divisions need a dedicated reconnaissance and security force to operate in the deep area to shape the division fight, this force needs to be capable of accomplishing zone reconnaissance, reconnaissance in force, and guard. To complete the reconnaissance and security tasks the Army should organize, equip, and train a division cavalry squadron with four attributes. First, the division cavalry squadron needs to be capable of fighting for information. This means the inclusion of tanks. Second, the reconnaissance and security force will be predominantly ground-based but needs to integrate air and technical reconnaissance capabilities. This means the inclusion of both manned and unmanned aerial capabilities. The integration of these capabilities will allow the division cavalry squadron to operate efficiently over the distances required by the division. Third, the division cavalry squadron needs to move faster than the enemy and the division main body while in direct and indirect fire contact with the enemy. Helicopters are certainly faster than most vehicles, but all elements of the formation need to have a tempo differential over other forces. Finally, a division cavalry squadron should be a squadron-sized force to provide mission command over the diverse and dispersed forces required to conduct reconnaissance and security tasks for a division.

A division cavalry squadron will require training to complete the tasks a division would expect. The US Army already has institutional schools to provide training. However, division cavalry squadrons need to conduct unit training focused on integrating all of the capabilities of the force. In addition, division staffs need to train how to employ a division cavalry squadron in the deep area.

In conclusion, divisions need a dedicated division cavalry squadron. Currently US Army divisions do not have such a force despite what our history, ongoing trends in warfare and our own doctrine shows us. Currently all work arounds to this problem are inadequate. General-purpose forces such as Brigade Combat Teams lack the organization, equipment and training to complete the tasks required. The current development of the R&S BCT also does not hold much promise for a division unless enough R&S BCTs are available to divisions. Indeed, organizing enough R&S BCTs would likely result in the same amount of squadrons as dedicating one squadron to every division. The Army should determine if it is more effective to create several R&S BCTs or a division cavalry squadron in each division. In the meantime, there is a gap and currently no organization can fill this gap. US Army divisions need a cavalry squadron.

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