

CAVALRY DOCTRINE

By the time the United States entered the Second World War many advocates of cavalry such as Brigadier General Adna R. Chaffee and Major Robert T. Grow had already laid down the prescriptions and doctrines that should be utilized and followed for successful cavalry operations on the modern battlefield. If one looked at the new type of mobilized warfare that was being waged in Europe, it was immediately realized that a fast, lightly armed and armored units would not be able to survive for a prolonged period of time if it attempted to fight it out with superior combined arms elements. It was established as early as the late 1930's that cavalry units should be employed as the eyes and ears of its larger parent unit to which it was attached. It should be able to probe the front and flanks of the enemy to gather information and intelligence as to its strength and positions and report that information to a higher command. It should not be used in a direct assault to take enemy positions, nor should it be used as a defensive stop gap because it could not offer much of a defense in depth. After its reconnaissance duties were complete, it should be withdrawn and employed elsewhere using the same doctrine. When not utilized in this method it could be used in counter reconnaissance roles and to protect the flanks and rear of friendly units. In 1940 Brigadier General Adna R. Chaffee wrote, "like all cavalry, the defensive fight sacrifices the most valuable characteristics of mechanized cavalry, its mobility in offense. Just as soon therefore as its objectives have been reached and movement has stopped, it should be relieved by troops of better defensive characteristics or those able to exert a slow and steady pressure rather than a quick and driving attack". The ability to cover ground was an outstanding asset of mechanized cavalry. It could travel between 25-35 miles per hour on good roads, covering 180 miles on an average days march. At night, without lights it traveled from 10-18 miles per hour, depending on the terrain conditions and weather. Because this mobility is one of its major justifications, it should be carefully guarded. Its mobility is not effective unless it is constant and continuing, during which prompt and quick decisions must be made. Between mid 1940 and 1941, the cavalry strength of the active duty army more that quadrupled from slightly fewer than 13,000 to over 53,000. By May of 1945 it reached 91,948.¹

There were thirteen Mechanized Cavalry Groups and one unattached Mechanized Cavalry Reconnaissance Squadron in the ETO during the war. These units were assigned to armies and habitually attached to corps, most of these attached were in effect largely permanent. Corps frequently further attached these units for operations only, especially to infantry divisions. Thirteen Mechanized Cavalry Reconnaissance Squadrons fought in the ETO as organic units of armored divisions and two Armored Reconnaissance Battalions as organic units of armored divisions and 42 Mechanized Cavalry Reconnaissance Troops fought in the ETO as organic units of Infantry Divisions. While performing offensive, defensive and security missions, it was normal for a Mechanized Cavalry Group to be reinforced by a battalion of field artillery, a

¹ Army Lineage Series Armor-Cavalry, Page 73, Office of the Chief of Military History, Washington, D.C. by Mary Lee Stubbs and Stanley Russell Connor, 1969.

battalion of tank destroyers and a company of engineers. It was established in 1945 that cavalry units were handicapped by the inadequate number of troops available to perform dismounted duties; additional men were sorely required but not available. Even though this created a contradiction between cavalry doctrine and what was actually required during combat situations in Europe. Doctrine stated that the “dismounting” of cavalry results in the sacrifice of mobility and may lead to a complete loss of contact with the enemy. The mounted mobility of mechanized cavalry was superior on roads. This mobility occasionally suffered once the reconnaissance squadron was forced to travel cross country as its abilities were limited by the performance of its primary vehicle the M8 armored car.² Major General Frank A. Keating, commanding officer of the 102nd Infantry Division stated in 1945 that mechanized cavalry as we know it is not properly organized or equipped to perform its missions. The reconnaissance elements needed to be more mobile and contain a greater increase of infantry elements. It must be able to fight dismounted for information. The present type of armored vehicles cannot be employed against modern defenses and should not be expected to do so. In addition their road bound qualities and limited turn around range makes them totally unsuitable and requires major improvements.

To further examine this study; it was realized that mechanized cavalry units had been instilled with the mission of reconnaissance and the doctrines that accompanied these missions with a minimum of fighting resulted many units to initiate operations with a mental obstacle towards offensive combat. In 1943, Lt. Colonel Jay C. Whitehair, a critic of the combat commander and his misuse of the reconnaissance troop stated that staff officers should be required to learn its capabilities and limitations. Whitehair felt that one only needed to observe a few maneuvers to realize that many officers regard a troop as a small armored division, heavy with sustained firepower, supply facilities and shock action. It has been used for seizing and holding objectives which were already held by a strong enemy force.³

To better understand the original function of mechanized cavalry, excerpts from “Employment of Mechanized Cavalry” are observed and prescribe the following; Mechanized cavalry units are organized, equipped and trained to perform reconnaissance missions employing infiltration tactics, fire and maneuver. The main role of the reconnaissance squadron was to obtain information as required by higher authority and to get it to the interested party in time to be useful. They engage in combat only to the extent necessary to accomplish the assigned mission. Reconnaissance units on reconnaissance missions contribute to the security of the main force by reporting the locations of enemy forces and by giving timely warning of ground and air attacks. Information and warnings are transmitted directly to units whose security is threatened and to higher headquarters. Direct communication between cavalry and tank destroyer units is essential so that tank destroyer commanders will have early information of tank concentrations and movement. Any echelon may monitor a radio net of a lower unit to intercept information.

² The General Board United States Forces, European Theatre, Mechanized Cavalry Units, Study Number 49, 1945.

³ Cavalry- Employment of Mechanized Reconnaissance Elements, May 1943 by Lt. Colonel Jay C. Whitehair.

Mechanized cavalry units have excellent mobility and communications as well as firepower. Cavalry deliberately avoided increasing armored protection as such an increase would decrease that very important commodity. They perform distant, close and battle reconnaissance within zones or areas or along designated routes or axis. Units may be employed dismounted on reconnaissance missions when the use of the vehicles is impracticable. The zone assigned will vary with the size of the unit, the routes available to the enemy, the effect of terrain, and weather on visibility and movement, the information desired by the higher commander and the facility with which reserves can be moved within the zone.

The frontage for a platoon reconnoitering a zone should not exceed four miles. A troop with one platoon in reserve initially can reconnoiter a zone 10 miles in width, while a squadron with one reconnaissance troop and a light tank company in reserve can cover a zone approximately 25 miles wide. For a two squadron group the normal frontage is approximately 40 miles. When performing detailed reconnaissance of a zone, cavalry elements can advance at the rate of 10 miles per hour over open terrain under favorable conditions. In unfavorable circumstances or when the enemy resistance is encountered which cannot be bypassed and must be removed, the reconnaissance unit's rate of advance may be reduced to that of dismounted reconnaissance. When the latter situation can be foreseen the higher commander must reinforce his reconnaissance elements appropriately for an operation which closely approximates that of an advance guard.

During missions when speed is essential, enemy opposition negligible, roads available, and details unimportant the rate of advance may be limited only by the speed of the vehicles. The time interval by which reconnaissance elements precede the main force during an advance must be determined prior to each mission. All factors which may affect the rate of advance of reconnaissance must be considered before missions are assigned. Night reconnaissance is less effective than daylight scouting and is limited ordinarily to dismounted patrolling and the observation of routes and the employment of listening posts. The operations of mechanized cavalry and aviation are complimentary. Air support provides information which facilitates the execution of ground reconnaissance missions and conserves ground elements.

Two or more reconnaissance squadrons attached to a group headquarters and headquarters troop constitutes a cavalry group. The cavalry group is organized, trained and, equipped to perform reconnaissance and protective missions for a corps or larger unit. The role of the group headquarters is to supervise the training of attached squadrons and to command them tactically. Administrative control of attached squadrons is limited to general supervision.⁴

Doctrines are explained and described explicitly in all written and verbal instruction. Its strength is inadequate for sustained offensive and defensive combat. This fact must be borne in mind constantly by officers charged with the assignment of missions. The mechanized cavalry reconnaissance unit has an important mission to perform when the higher unit is on the

⁴ Employment of Mechanized Cavalry 1944, Pg. 1-4, Fort Riley, Kansas, Document # N-17689.1

defensive. In general the methods of obtaining information while on the defensive do not differ from those employed in other types of operations. The reconnaissance elements, reinforced as necessary should maintain contact with the enemy. It may be ordered to perform counter reconnaissance missions, either by movement or stationary that would prevent the enemy from reconnoitering a particular area by destroying him, turning him away or by delaying movement towards the troop concentrations. Dismounted, it patrols on its own immediate front and may be employed for special patrolling, especially when the distance between the opposing positions is considerable.

During employment mechanized cavalry utilized all of its available facilities for rapid communications to inform the parent unit of the terrain and enemy situation. During this period the combat conditions could change constantly. As a result the cavalry commander had to evaluate his situation while on the move and make decisions and subsequent plans with limited personal reconnaissance. By necessity, commanders also were forced to employ shortcuts and time savers in both thought and actions taken to avoid the issuance of lengthy orders and to issue fragmentary direct orders for speed and clarity.

Inevitably as advance guard reconnaissance elements closed with the enemy, they would withdraw to the flanks of the advance where they would function as combat patrols and allow stronger forces such as infantry and armor to deal with mobile or defensive opposition.

The mishandling of independent cavalry units in Europe during the Second World War was initiated by Army and Corps commanders who lacked the understanding of cavalry doctrine, its capabilities and limitations, a transgression committed by many a G-2 and G-3 as well. Too few understood what may or may not be demanded of mechanized cavalry. Combat records indicate that commanders who had mechanized cavalry elements at their disposal rarely used them for reconnaissance. A cavalry squadron reinforced with adequate firepower was too tempting an asset for commanders to use solely for reconnaissance. Instead they employed them on combat missions held them in reserve or used them for rear area security or control.⁵ As early as the Normandy campaign, cavalry units were used not only for the prescribed missions such as reconnaissance, security and flank protection, they were also employed for offensive tasks. Even though their mission was to be performed with a minimum amount of fighting, direct assault on a town or terrain feature was not an unusual assignment for many cavalry units. During 1943 the addition of an assault gun troop to the reconnaissance squadron was constituted. This addition gave the squadron its own direct artillery support, however it could hardly be expected to accomplish much with the M1A1 75mm pack howitzer. This additional firepower was utilized to add additional power into the reconnaissance unit; it was never intended to be exploited by being employed as an assaulting force. One reconnaissance platoon had the ability to provide more firepower than an entire infantry company. However mechanized cavalry was inferior to infantry in rifle and automatic rifle strength. Nevertheless it could not maintain this rate of output for a prolonged period of time; it would eventually exhaust its ammunition resources.

⁵ The General Board United States Forces, European Theatre, Mechanized Cavalry Units, Study Number 49, 1945.

The prescribed combat load for a Cavalry Troop was as follows: 1,500 rounds per light machine gun, 24 rounds per 60mm mortar and 16 rounds per 37mm gun. Cavalry supply trains, as a rule did not deploy in close proximity to the squadron, procedure dictated that it locate itself to the rear of where the squadron was operating. During combat these elements deployed and concealed themselves outside the limits of operations and were responsible for their own defense. The support platoon affords protection when present. Vehicles of the train are equipped with radios to provide communications within the train and with troop headquarters. Automatic weapons are provided on vehicles for antiaircraft defense and bazookas against enemy tanks. This would leave the reconnaissance troops, assault gun troop and the tank company in a rather poor condition as far as ammunition and fuel replenishment was concerned. Just as important was the fact that once an objective was taken, the cavalry unit would have to be replaced by units such as infantry and medium tanks so that the objective could be held on to. Cavalry units would not be able to provide an extended defense against a determined attack. The Germans were well known for their tendency to immediately counter attack to retake recently lost positions. A cavalry squadron would not be able to hold off a combined arms attack such as the Germans were capable of mounting during the fighting in Normandy.

Many experienced combat commanders and officers concluded that the mission that was assigned to mechanized cavalry, reconnaissance with a minimum amount of combat was unsound. They believed its mission should be combat. They also felt that the future role of mechanized cavalry should be the traditional role of a heavily armed and lightly equipped combat force, and that capability of this force, particularly that normally operating under a corps to perform that role should be exploited.⁶ The problem with this strategy was the fact that mechanized cavalry was neither equipped nor trained to perform such missions. By 1944 cavalry squadrons were equipped as follows: three reconnaissance troops, consisting of 27 M8 armored cars. An assault gun troop consisting of 6 to 8 M8 HMC with a 75mm pack howitzer and a light tank company with 17 M5A1 light tanks.⁷ An adequate TO & E for performing reconnaissance duties, flank protection, screening and maintaining contact with larger units. However difficulties arose as soon as these units were used for offensive combat, including attack and aggressive pursuit or attempting to hold on to positions in a defensive manner without the proper support. In many cases especially during defensive combat cavalry units were committed for long periods of time without relief. Cavalry often suffered from a lack of reserves and the inability to provide depth to its positions; to reinforce an action or to relieve troops that have been committed for long periods of time. Most cavalry officers felt that offensive operations should only take place as a last resort and when appropriate units were not available to perform the task. The TO & E should also indicate that it is not designed for sustained combat operations. Furthermore, it was not economical to utilize these specially trained reconnaissance

⁶ Army Lineage Series Armor-Cavalry, Page 73-74, Office of the Chief of Military History, Washington, D.C. by Mary Lee Stubbs and Stanley Russell Connor, 1969.

⁷ These were the main combat elements; support elements also included the ¼ ton jeep, M3 series halftracks, 2 ½ ton trucks and the Dodge ¾ truck series vehicles.

troops for routine combat missions.⁸ Mechanized cavalry did have the mobility equal to the German ground reconnaissance elements however in many cases it could not match its firepower. The allied forces that came ashore on D Day were already out gunned when compared to the Germans. To add insult to injury the Germans also possessed better armor protection, at least on the Panther and Tiger tanks. A mismatch of substantial proportions occurred when cavalry arrived in the ETO to discover that the battlefield demanded more firepower, mobility and protection for combat missions.⁹ With this information in hand corps and division staff should not have assumed that the squadron or troop was capable of sustained combat and attempt to employ it as an armored unit.¹⁰ The TO&E of German reconnaissance units were similar to their U.S. counterparts, jeeps (Kubelwagen, the German equivalent), halftracks and in some cases light tanks and anti aircraft weapons of the 20mm and 37mm variety. However by 1944-45 the Germans began incorporating fully tracked armored vehicles into their reconnaissance units. Invariably U.S. reconnaissance elements would encounter an opponent that could bear superior firepower on the battlefield. What ground commanders did not realize was that the reconnaissance elements were an extension of the combat intelligence organization and that its personnel were trained to observe and report essential information back to the parent unit.

To understand the difficulties which the 14th Cavalry Group faced we must first appreciate and examine the cavalry doctrine with which cavalry units went into combat in Europe with. By March of 1942, the cavalry arm lost its voice in Army leadership. After this period any doctrinal revisions were the responsibility of the Army Ground Forces lead by General Lesly Mc Nair. Also in 1942, all cavalry units except cavalry divisions became mechanized; this decision by Generals Marshall and McNair insured that cavalry units deployed to Europe would do so as mechanized only.¹¹ All non-divisional mechanized cavalry regiments were broken up in 1943 to form separate groups and squadrons. The reorganization coincided with a new war department principle governing the employment of mechanized cavalry. This restructuring had an adverse affect on the morale and administrative efficiency of these units in the field. This hindrance was somewhat confirmed by the fact that mechanized cavalry reconnaissance squadrons normally operated under their corresponding groups. Furthermore the reorganization facilitated the ability of squadrons to operate on detached missions. The units were organized and equipped to perform reconnaissance missions employing infiltration tactics, fire and maneuver. The directive also specified that the units were to engage in combat only to the extent necessary to accomplish missions. Except for cavalry divisions, therefore the official cavalry mission in general was reconnaissance, a doctrine that held for the remainder of the

⁸ Military Review January 1945, "Considerations for the Employment of Mechanized Cavalry" by Lt. Colonel William T. Bird.

⁹ Adaptation to Change: U.S Army Cavalry Doctrine and Mechanization, 1938-1945 by Lt. Colonel Dean A. Nowowiejski, 1994.

¹⁰ Military Review January 1945, "Considerations for the Employment of Mechanized Cavalry" by Lt. Colonel William T. Bird.

¹¹ Ibid

war.¹² However by June of 1944, these doctrines were quickly outdated and could only be employed on the European continent with great difficulty. Lessons learned in Italy were either ignored or brushed aside. Most mechanized cavalry units were not equipped or trained to carry out many of the duties that were assigned to them. War Department Field Manuals FM 2-20, Cavalry Reconnaissance Troop Mechanized dated February 1944 and FM 2-30 Cavalry Reconnaissance Squadron dated August 1944 contained doctrine and information, which was both naïve, and obsolete. Mechanized Cavalry units in Europe conducted not only reconnaissance roles but were assigned various types of missions as follows: Defensive combat including delaying actions and holding key terrain features until the arrival of stronger forces, 33%. Special operations including acting as mobile reserve providing security and control of rear areas and operating as army information services, 29%. Security for other arms, including blocking, screening, protecting flanks, maintaining contact between larger units and filling gaps, 25%. Offensive combat including attack, pursuit and exploitation, 10% and reconnaissance, 3%. Instead of investigating why commanders were misusing cavalry elements the Army decided to better equip squadrons to accomplish these additional missions. This breakdown reveals that reconnaissance, the principal task was rare and defensive combat was the norm. Clinton Meadows, commanding E Troop of the 18th Squadron echoes what has already been established; the mission of a Mechanized Cavalry Squadron is to act as the eyes and ears for army ground troops. They are equipped with lightly armored, very mobile and heavily armed combat vehicles. Communication is entirely by voice and CW radio with no field phone.

The situation for mechanized cavalry did not improve as the months of October and November passed. By this point the Allies were experiencing a distressing manpower shortage. The Allied advance through France, Belgium and into the borders of Germany had taken its toll on American combat troops. The typical American Division north of the Ardennes was operating at 70 percent effective strength, as well as suffering 64,000 casualties during the November battles in which the infantry experienced from exposure, frostbite and trench foot as well as respiratory diseases reaching as Bradley later recalled “the crisis stage”.¹³ Obviously this concern was not greatly publicized but had been kept undisclosed and only whispered about at division and corps level. Eisenhower and SHAEF commanders were pleading Washington to make available more troops to the European theatre. The response to all requests was that despite the recent losses, manpower in the European Theatre exceeded departmental quotas and that Eisenhower was to make do by combing out the bloated Comm-Z components.¹⁴ The month of November and early December were especially grim in the number of casualties. Divisions had been bled dry in First Army’s attempt to take the Heurtgen Forest. Also shocking was the casualties suffered from weather related afflictions. These difficulties coupled with the fact that during the first two weeks of December, aerial reconnaissance was not as productive as it could have been because of the unfavorable weather conditions, which at times produced poor

¹² Army Lineage Series Armor-Cavalry, Page 71-72, Office of the Chief of Military History, Washington, D.C. by Mary Lee Stubbs and Stanley Russell Connor, 1969.

¹³ Eisenhower at War 1943-1945, Page 525-526 by David Eisenhower.

¹⁴ Ibid, Page 555 by David Eisenhower.

visibility. The circumstances under which cavalry units had to endure became bleak. Not only fulfilling the typical reconnaissance role but to a greater extent being used as a substitute for the lack of armor and Infantry replacements. Cavalry squadrons and groups often finding themselves taking on defensive and offensive combat missions as a result of the deficiency in manpower. This would allow the depleted rifle companies time to rest and absorb new replacements. This strategy was carried out frequently, however it was a risk. In fact at one point Lt. General Raymond S. McClain, while commanding the 19th U.S. Army Corps used a cavalry squadron to cover the 30th Infantry sector while the division was withdrawn for rest and replacements. This squadron was holding the entire front of the divisions sector for a period of time.¹⁵ Reports from the 36th Infantry Division in Italy stated that because of a wide frontage, it was necessary at times to assign armored and reconnaissance units to cover gaps within infantry defensive areas. This was not an ideal employment of armored and reconnaissance units, especially at night. However under the circumstances they were the only units available for the purpose.¹⁶ Many commanders looked at mechanized cavalry as a small armored division with substantial firepower, capable of prolonged offensive operations. Nothing was further from the truth.

Cavalry undertaking reconnaissance responsibilities usually required additional combat elements to penetrate enemy forces. Infiltration alone is not adequate in all cases. Attack and reconnaissance were considered one in the same and it was often necessary to attack a covering enemy force in order to create a situation which would reveal the actual strength of the enemy.¹⁷ Cavalry units were reinforced with infantry, tank destroyers, artillery and engineers to accomplish many of its assigned missions. Such attachments were required to brush aside enemy resistance and move rapidly forward into the enemy's rear areas. Cavalry squadrons were the basic tactical unit to accomplish this operation. Vigorous patrolling of enemy positions would attempt to convince the enemy that U.S. positions were held in force. However within the 14th Cavalry Group sector defensive outposts had been spread so wide that even aggressive patrolling could not convince the German units opposite the cavalry positions that the sector was occupied by strong forces. Persistent patrolling on the part of the Germans was also able to confirm a lightly held front line. An additional word on patrolling; cavalry doctrine stated that all commanders must constantly surround themselves with small patrols which should work as far into enemy territory as humanly possible. During the Tunisian campaign one particular division sent patrols of 10-12 men deep into German territory at night where they maintained themselves for several days. As a result very important intelligence information had been obtained. The mission of patrolling is difficult to perform if done correctly. Men not properly trained and without the proper attitude were considered worthless on these missions. Cavalry commanders felt that it was almost impossible to overemphasize this in training. As one division commander

¹⁵ Military Review, 1969, "One of the Greatest-A Study in Leadership" by Lt. Colonel Albert N. Garland.

¹⁶ Experiences with the 36th Infantry Division in Italy, by Maj. Fred L. Walker U.S. Army.

¹⁷ Defining the Core of Competencies of U.S. Cavalry by Major J. Bryan Mullins, School of Advanced Studies U.S. Army Command and General Staff College, Fort Leavenworth, Kansas.

stated, “As long as the Germans out-patrolled us, they had the initiative. As soon as we began to out-patrol them the initiative became ours.”

A typical reconnaissance troop consisted of six officers and 143 enlisted men. When you deduct the Liaison group maintenance and administrative personnel the strength drops to one officer and 28 enlisted men in each of the three platoons. Add the troop headquarters and the troop is left with five officers and 97 enlisted men for missions. Among the five officers and 97 enlisted men were 15 NCO's (platoon, section and squad leaders) 1 communications chief, 27 radio operators, 30 drivers and 18 mortar gunners and assistants, a total of 91. 96% of the combat troop were specialists and not easily replaced. These troops also trained in reconnaissance, mounted and dismounted, scouting and patrolling. Reports that were generated from the ETO stated that reconnaissance by untrained troops was not effective.

Although the cavalry squadron from a group had the added fire support from its assault gun troop, not available within infantry divisions, it should not have been assumed that the squadron was capable of sustained firepower and heavy shock action. It should not have been used liberally as an armored unit. It was recommended by cavalry leaders that the need for offensive combat clearly outweigh the need for efficient reconnaissance because the combat life of mechanized cavalry was likely to be a short lived one. Unlike mechanized cavalry held at corps level, armored division reconnaissance had the confidence that division help was always close at hand.

With the immense amount of information that can be put forward to substantiate the fact that mechanized cavalry was neither trained nor equipped to take on any role other than reconnaissance, we must realize the fact remains that it was typically requested to take on missions of various calibers. When combat was imminent, it was up to the discretion of the cavalry commander on the spot on how to best deal with situations that could arise while attempting to carry out standard operations. Considering the fact that the 14th Cavalry Group was incorporated into a defensive strategy in this section of the Ardennes, an undertaking that was in conflict with prescribed cavalry doctrine. On the morning of December 16, the 18th Cavalry Reconnaissance Squadron found itself caught up in a most aggressive German offensive. As mentioned earlier the squadron had a contingency plan worked out with Major General Robertson of the 2nd Infantry Division, however when the 106th replaced the 2nd that plan was not re-evaluated, nor was it discussed in detail with Major General Jones. It was clear to Colonel Devine and Roberts that should a strong German push occur in the Losheim Gap, “Task Force X” would not be able to hold it back. The best that Devine could do would be to fall back to the Manderfeld Ridge while the 2nd Infantry Division attacked from the western slope of the Schnee Eifel against the flank of any enemy force moving southeast down through the valley and attempt to hold until reinforcements could arrive.¹⁸ By the time Colonel Devine was relieved of his command on December 18, the 14th Cavalry Group withdrew no less than nine times, most of these were carried out without direct orders from the 106th Division or VIII Corps. From

¹⁸ Hitler's Last Offensive Page 119 by Peter Elstob,

December 16 until the end of December 18 elements of the group played a deadly game of cat and mouse with advancing German units. The problem that is encountered here is that the cavalry unit was being used in a fashion for which there was no prescribed course of action or field manual solution; however it is not always feasible to adhere to written doctrine. Combat situations will inevitably dictate a modification in doctrine and commanders will be forced to elaborate from policy and carry out an alternate plan which will bring about a successful operation.

As stated earlier, to fully comprehend the predicament in which the 14th Cavalry Group found itself, one must first realize the prescribed doctrine which dictated the employment and operation of mechanized cavalry during this period. The three pieces of documentation which instructed on how the cavalry units would perform would have been FM 2-30 Cavalry Field Manual, Cavalry Mechanized Reconnaissance Squadron March 1943, FM 2-30 Cavalry Reconnaissance Squadron, Mechanized August 1944 and FM 100-5 Field Service Regulations, Operations June 1944. Tactical doctrine which governed the employment of mechanized cavalry units was contained in paragraphs 38 to 41 of Field Manual 100-5 and in paragraph 2 of Training Circular 107, War Department, 1943. An excerpt from War Department Training Circular No. 107, the “bible” of the mechanized cavalry states as follows: “Mechanized cavalry units are organized, equipped and trained to perform reconnaissance missions employing infiltration tactics, fire and maneuver. They engage in combat only to the extent necessary to accomplish the assigned missions”. Although the circular does not refer to any secondary missions, it was apparent that these units were in fact used for additional assignments other than reconnaissance. Should corps or division have attached mechanized cavalry, it could be used on missions of urgency (not against enemy armored vehicles). However cavalry should not be held for these missions alone.¹⁹

As the 18th Cavalry Reconnaissance Squadron was deployed across the 5 mile wide Loshiem Gap its E Troop (assault guns) and F Company (light tanks) were dispatched on either side of Manderfeld to provide support to the reconnaissance platoons which were in positions in front of the Manderfeld Ridge. FM 2-30 states that the light tank company is usually held in reserve and the assault guns are attached to the reconnaissance elements. However it was decided to place these units on the higher Manderfeld Ridge, an elevated terrain feature more or less overlooking the reconnaissance units. This was realized to be an asset as E Troop took a high toll of advancing German infantry during the early morning hours of December 16. The doctrine allowed for a certain amount of flexibility on how the assault gun and tank element of the squadron could be deployed. Both units could either be attached as an integral unit or by individual platoons.

The 18th Cavalry Reconnaissance Squadron was fulfilling a mission with multiple requirements. It was conducting an operation which was largely defensive in nature but required

¹⁹ Military Review January 1945, “Considerations for the Employment of Mechanized Cavalry” by Lt. Colonel William T. Bird.

screening, reconnaissance and counter reconnaissance. The term “screening” or “counter reconnaissance screen” means the prevention of hostile ground observation of friendly positions and early warning of the approach of enemy forces. The defense of a position was not the strong suite of a cavalry unit. However, if the task was necessary according to FM 2-20 and FM 2-30 it was to be carried out as follows; active patrolling on all routes of approach. Local security measures and organization of the area for all around defense should be provided. Foxholes and weapons emplacements are dug in and camouflaged. Weapons are sighted to cover obvious avenues of approach and close in defensive fires are coordinated and planned. Natural obstacles are improved and supplemented where practical; Routes of withdrawal are located and reconnoitered and each trooper in the position should be aware of these routes. Listening posts are occupied to detect enemy movement when visibility is limited. Positions are approachable in daylight by the use of concealed routes or during the hours of darkness. Movement in the outposts should be limited during the hours of daylight. Vehicles should be concealed close to the outpost positions if possible and should be disposed so that their weapons will provide all around support and protection. Prone shelters are dug by all personnel for protection against hostile artillery fire. Most importantly concerning missions when the enemy is dispersed on a broad front or when his location is in doubt, a zone or reconnaissance is assigned. Factors to be considered in determining the width of the zone are the condition and pattern of the road net present and predicted road conditions, fatigue of personnel, condition of the vehicles, terrain features within the zone and any anticipated enemy action.

It also states that the reconnaissance squadron will rarely be called upon to execute a position defense, but it or its elements may be required to defend observation posts, bridges or defiles in order to accomplish reconnaissance missions. The decision to defend a position rather than to conduct a delaying action should be made after weighing the advantage to be gained against the risk involved and that the defense of an isolated position by a small force exposed the unit to the danger of being cut off and destroyed.

A close examination of the types of vehicles and weapons is also essential if one is to understand the capabilities of the Mechanized Cavalry Squadron. The foundation of the reconnaissance troops was the M8 and M20 Armored Car. The assault gun troop consisted of the M8 Howitzer Motor Carriage and the tank company was equipped with the M5A1 Stuart light tank.

The following is taken from FM 2-20; armored cars are the basic command and communication vehicles. The light armored car, M8 is a 6x4 vehicle, weighs 7.68 tons with equipment and crew and is capable of cruising from 100 to 250 mile across country or 200 to 400 miles on highways without refueling. On a level improved road it can sustain a speed of 55 miles per hour. Each armored car is equipped with a long range radio set to assist in the exercise of command or for the purpose of relaying information received from subordinate elements to higher headquarters and a short range radio set for communication within a platoon, reconnaissance team or headquarters. The armor of the vehicle provides a fair degree of protection against small arms fire, while the 37mm anti-tank gun permits mobile defense against

lightly armored vehicles at ranges not exceeding 400 yards when armor piercing ammunition is used. The gun also fires canister and high explosive shell. Each armored car is equipped with one .30 caliber machine gun for use against personnel. An anti-aircraft machine gun may be added to the turret. The vehicle is not designed for offensive combat. The car has only fair mobility across country and has a large turning radius and limited mobility which make it susceptible to ambush on roads and in defiles. The 37mm gun has a high muzzle velocity and flat trajectory. Armor piercing ammunition is effective against lightly armored vehicles at ranges less than 1,000 yards. High explosive ammunition is used against machine guns and anti-tank weapons. Canister is effective against personnel at ranges less than 200 yards. The gun is employed from positions, which afford hull defilade for the armored car. No ground mount is provided for the 37mm gun. Fire from a moving vehicle is inaccurate. The M20 was identical to the M8 however the turret was removed and an open box type compartment was mounted in its place. It was armed with a M49 ring mount and a .50 caliber machine gun.

FM 2-20 and FM 2-30 go into a fair amount of detail on the procedures for the employment of the reconnaissance troop; however the areas covered here will only deal with the dispositions of the squadron as it was deployed between the months of October through December 16, 1944. The field manuals state that the reconnaissance troop mechanized is organized and trained to perform reconnaissance missions. The primary mission of the reconnaissance troop is to furnish the commander of the unit to which the squadron is assigned with information upon which to base a decision for the employment of the unit. Other types of missions are given only in the furtherance of a reconnaissance mission of the troop or squadron of which the troop is a part, unless no other troops are available for other types of operations. Reconnaissance missions are performed by employment of infiltration tactics, fire and maneuver. Combat is engaged in only the extent necessary to accomplish the assigned mission. Each reconnaissance platoon is tactically self-contained. By attachment of transportation from troop headquarters, two of the three platoons can operate on detached missions beyond the supporting range of the troop. The troop should be reinforced before departing on a mission when sustained combat or the crossing of obstacles is anticipated. The troop or platoon engages in combat with enemy forces which threaten the success of the mission. Elements support each other by employing fire and maneuver to affect the advance of the unit or a part of the unit contains the enemy while the remainder continues the mission. The unit should not become involved so seriously that it can not withdraw to secure freedom of action for and an advance in a new direction. In side-slipping hostile resistance, the detour is made beyond the effect of enemy weapons so that the enemy must displace to offer further resistance. Fire superiority is gained over the enemy by subjecting him to fire of such accuracy and intensity that hostile fire becomes inaccurate or decreased in volume. The basis of fire assists in neutralizing enemy fire. FM 2-20 goes on to state that elements of the troop may be required to hold on to a position for a predetermined period of time. A unit defending a single position to affect delay organizes the position and plans its fires. The reconnaissance troop operates as a unit only in the sense that its commander controls and coordinates the activities of the platoons. The platoon is the basic tactical unit and separate missions are assigned to each platoon.

Concerning general combat, the reconnaissance troop of the squadron, normally reinforced with assault guns and light tanks when their use is anticipated is prepared to fight for information if necessary to accomplish reconnaissance missions. Elements may also be used to harass or delay a hostile enemy force, to secure critical routes or areas pending the arrival of other forces or for counter reconnaissance. The reconnaissance squadron normally operates with two reconnaissance troops initially assigned to active reconnaissance; one reconnaissance troop together with the light tank company initially may constitute the squadron reserve. The squadron reserve may be employed to create a gap in the enemy's screen in an area which favors subsequent reconnaissance operations. During the action reconnaissance elements are prepared to pass through the gap without delay. Although FM 2-20 and FM 2-30 indicate that scenarios may occur which would require the combined elements of the troop or squadron to fight for necessary intelligence information it also recommends that heavy combat not be engaged for extended periods of time.

The specifications for the M5A1 were as follows; a combat weight of 16.9 tons, the main weapon as in the M8 armored car was the M6 37mm anti-tank gun. Armor protection at the front hull was a mere 2" to 2.5" and hull sides were 1 1/8". Secondary weapons were two .30 caliber machine guns, one mounted coaxially in the turret and an additional in the front hull. In reference to the deployment of the tank company FM 2-30 indicates that the tank was the offensive weapon of the reconnaissance squadron and permits it to operate with greater aggressiveness. The light tank possessed characteristics of relatively great firepower, protection to the crew and shock and mobility. The latter is limited by terrain features such as terrain limitations. The tank company is employed most effectively in combat as a unit supported by the fire of its assault gun troop to neutralize antitank weapons. The primary mission of the tank company is offensive action. It seeks to break up organized resistance by destroying hostile personnel, automatic weapons and mortar and artillery positions. It will also disrupt communications and over run command posts and impede the movement of enemy reserves. FM 2-30 further states that since the attack of positions strongly organized in depth are beyond the capabilities of the squadron, the tank company normally is assigned limited objectives. Pursuit is restricted to that necessary to prevent hostile reorganization of the position. Before an attack the company occupies an assembly position where final preparations for the attack are made. Platoons occupy the area in such a manner as to allow them to move directly into attack positions without passing through other units. Over a wide front the tank company may be attached as a homogeneous unit or by platoons so that proper coverage is maintained, however they are most effectively employed as a unit. Defensively, the light tanks were used to fend off enemy attacks and to counterattack when necessary. In general, the light tank company is normally held in squadron reserve as its nature does not permit it to be readily adaptable to reconnaissance missions. It will usually be occupied if used only as a counterattacking force to extricate reconnaissance elements from danger. The tank company makes for a poor outpost force for the squadron in bivouac; this is in part accurate at night and should only be used as a last resort.

The M8 Howitzer Motor Carrier specifications were the same as the M5A1, the major difference being the addition of the 75mm M1A1 howitzer in an open turret. The field manuals

indicate that the assault guns are attached to support the reconnaissance platoons by placing smoke or HE concentrations on enemy positions allowing infiltration by reconnaissance units. The assault gun platoon consists of a platoon headquarters and three two gun platoons with an ammunition section which operates under reconnaissance troop control. Assault guns are usually held with one reconnaissance platoon in troop reserve and employed as a unit in support of reconnaissance elements and distributed as the need arises. The troop commander retained the initiative on the distribution of these units. Individual assault gun sections may be attached to and operate separately with reconnaissance platoons. In these cases the platoon headquarters and ammunition section would normally remain with the troop headquarters until engagement of one or both of the guns requires ammunition resupply. Assault guns would employ direct or indirect fire, depending on the availability of suitable defiladed positions. Primary targets would be anti-tank guns, light and heavy machine guns and tanks. Guns may also be used to pin enemy personnel to the ground and to destroy hostile enemy vehicles. The assault guns were also incorporated against targets in which other weapons have proved ineffective. Because of the small quantity of ammunition carried for each vehicle (46 rounds) economy was stressed, if available the M8 would tow the M8 or the M10 armored ammunition trailer. The individual vehicles are placed in hull defilade positions from which they can employ direct fire to repel a hostile attack. Dug in emplacements will be used in very flat terrain where no concealment or defilade is available. In a defensive manner, as in the Ardennes, they could be used to cover likely avenues of advance by enemy forces utilizing direct or indirect firepower.

After examining the tactics and vehicles that were expected to be the bulwark of the mechanized cavalry reconnaissance squadron, it is obvious that the doctrine was flawed. In a study completed in 1945, Major General W.M. Robertson, commanding the 2nd Infantry Division stated that it appeared obvious that the principles of administration set forth by the War Department, which resulted in efforts to centralize administration of all separate units in armies, bypassing groups and corps has been proven faulty. Corps has been by necessity required to administer the units under its command. The group likewise has been required to deploy squadrons and battalions with makeshift means. From a command standpoint the control exercised by group headquarters over any given assignment of squadrons or battalions has neither been successful nor entirely satisfactory to the individual soldier whose morale and whose will to fight have often been materially affected by frequent changes in operating headquarters. Roberts goes on to say that the cavalry troop should contain at least a squad of rifleman in each platoon equipped with armored personnel carriers to supplement and extend the activities of the mechanized elements. The squadron commander should possess a rifle troop for employment where it might be necessary within the squadron's zone of action. Cavalry should be provided with vehicles of low profile, low visibility, high speed, armor proof against small arms fire, heavily armed with weapons now being developed employing the recoilless principle and having ground pressure not exceeding 4 to 5 pounds per square inch. They should also be able to by energy, viciousness and speed of their attack defeat heavily armored units possessing lesser mobility.²⁰

²⁰ The General Board United States Forces, European Theatre, Mechanized Cavalry Units, Study Number 49, 1945.

Crewman of the M8 armored car and the M5A1 tank have stated that the M6 gun was adequate for the use against infantry and light ground targets, however it was not effective against armored vehicles. The distances at which the targets would have to be engaged would be much too close. It was also realized as far back as the late summer of 1944 that the M8 armored car suffered from a thinly armored floor compartment and was frequently reinforced with ½” armor plate when possible.²¹ Also the operation of the radio equipment in the M8 required a heavy output from the battery and as a result it was difficult to keep the battery fully charged. Many units were able to utilize a charger between the rear wheels to keep the battery charged and save the running of the engine while using the radio.²² The 1945 General Board Study also revealed that the firepower of mechanized cavalry units suffered severely due to the lack of an effective primary weapon in the armored car and light tank. It also determined that the M5A1 was inadequate in combat, except for light reconnaissance and screening duties. From the words of a crewman, “the M5A1 was as useless as a wart on a hog’s backside. We were instructed to fire one round at the tracks of a German tank and then run like hell”.²³ It was established that the M8 HMC provided a descent addition to the cavalry unit, however, the bursting radius of the 75mm shell was deemed to be unsatisfactory as a result of combat experience. The M5A1 was eventually replaced by the M24. Generally speaking the M24 was still inadequate on the European battlefield with respects to its main gun and armor. However for the crews of the Stuart it was definitely a step up and tankers would speak volumes of the positive differences. Warren Mylchreest of F Company, 18th Cavalry Reconnaissance Squadron stated that receiving the M24 was like going from a Model T Ford to a Cadillac.

The deployment of mechanized cavalry groups during the European campaign had to be balanced by the understanding of the risks that were taken and the price paid when the Germans launched a solid attack on these units as they were not organized for sustained combat.²⁴ However the fact that one entire corps was used to relieve one cavalry group on the Siegfried Line speaks volumes of the contribution by mechanized cavalry on combat missions.²⁵

²¹ 12th Army Group Battle Experiences No. 68 October 19, 1944.

²² 12th Army Group Battle Experiences No. 68 August 31, 1944.

²³ Warren Mylchreest, F Company, 18 Cavalry Reconnaissance Squadron. Letter to author dated March 27, 1999.

²⁴ Defining the Core of Competencies of U.S. Cavalry by Major J. Bryan Mullins, School of Advanced Studies U.S. Army Command and General Staff College, Fort Leavenworth, Kansas.

²⁵ U.S. First Army Headquarters Report on Mechanized Cavalry Operations August 1, 1944-February 22, 1945.

TANK DESTROYER DOCTRINE

On the evening of December 10, 1944 elements of the 820th Tank Destroyer Battalion was attached to the 18th Cavalry Reconnaissance Squadron. It would be appropriate at this point to examine the tank destroyer doctrine (towed) as it existed during this period. This is necessary as the tank destroyer battalion was linked to the cavalry throughout most of the campaign. As with the cavalry it is essential to examine the doctrine and theory and how it was actually employed. Compared to the mechanized cavalry doctrine of the period, the policies of the towed tank destroyer battalions was just as flawed and obsolete. It was discovered as early as 1941 and 1942 during the Louisiana and Tennessee maneuvers that towed antitank guns could not be recovered if crews were forced to conduct a rapid withdrawal. However during this period, mobility meant little and as a result tank destroyer units were required to be towed rather than self propelled.

The initial tank destroyer manual FM 18-5 dated June 16, 1942 described an aggressive doctrine of firepower and maneuver utilizing a self propelled gun. The second edition dated July 18, 1944 had been reduced in its aggressiveness. In fact the term "fire and maneuver" were not included in this version. The second edition was not limited to the use of self propelled guns. It recommended that "towed guns are more suitable for advance positions than self propelled guns." After the North African campaign invasion planners came to the conclusion during 1943 that 52 tank destroyer battalions would be employed in Europe, of these half would be self propelled and half would be towed. Information from commanders and troops revealed that the towed guns had been preferred over the motorized alternative. This nonconformity to the advancement of the mechanics of warfare was similar to the traditional cavalry arm contesting the reorganization to a mechanized force and exchanging horses for armored cars and halftracks.

Prior to the invasion of Europe towed tank destroyer battalions began to encounter a change in doctrine. Allied planners had intended to attach a towed battalion to each division while retaining the self propelled battalions as corps and army reserves. This shift was partially in accordance with FM 18-5 as it allowed for the lack of mobility of the towed guns. Amphibious exercises prior to the invasion revealed the vulnerability of the towed guns while disembarking and going into combat. As a result only one towed battalion was included for the initial invasion while several self propelled units had been used.

By June 6, 1944, there were 19 self propelled and 11 towed battalions available for the invasion of Europe. Initially it was planned for the towed battalions to be attached to divisions and the self propelled units to be employed at the corps and army level and distributed to meet enemy armor as required. Combat reports from Normandy indicated that self propelled guns were actually preferred when compared to towed as the low profile of the towed gun restricted

the ability to fire over the hedgerows. Towed guns were also vulnerable to small arms fire which made it difficult to employ them in forward areas.²⁶

On a positive note, the towed guns were easy to conceal and were able to ambush advancing enemy armor. They were also capable of providing support in operations against fixed emplacements such as bunkers and machine gun nests. The towed gun eventually became a defensive weapon. The guns were protected as long as infantry and armor support was available to secure them.

After the invasion the restrictions of towed guns became more evident. Just after D Day units that had not taken part in the initial landings began to request self propelled guns to replace towed pieces. The reasons that led to this change were from experiences gained on the battlefield. There was a requirement for the armored self propelled gun within the infantry division to provide support and to be self sustaining with armor protection and not be vulnerable to attacking enemy infantry. Also revealed were the vulnerability of the crews and the lack of mobility of the guns. The guns also became susceptible as they revealed their positions by firing, the shortcomings were not unknown. By the fall of 1944 units in the European Theatre of Operations began requesting additional self propelled units. By November the War Department had confirmed that the desire was for 40 self propelled battalions while 12 were to remain towed.

During the Battle of the Bulge towed guns were quickly outflanked by tanks and infantry and the crews were either killed or forced to abandon the guns. Platoon leaders and gun crews revealed that if it had not been for the non-mobility of the guns and the lack of protection for the crews, more German vehicles could have been destroyed.²⁷ The towed M5 anti tank gun had to be quickly repositioned to avoid enemy counter fire. Placing the weapon in a new position required a crew of at least five men to manhandle the 5,000 pound weapon back on its towing vehicle, usually an M3 halftrack. This was a dangerous and time consuming job to perform especially with German infantry and tanks moving on your position. The gun was approximately five times heavier than the old 37mm and was vulnerable to all forms of enemy fire and still could not destroy enemy armor with certainty. During the first week of the offensive tank destroyers lost 77 guns, 65 of which were towed and of a total of 119 lost by the end of December, 86 were towed.

During the Ardennes offensive self propelled tank destroyers scored most of the kills as the towed battalions suffered much heavier losses, especially in equipment lost. Tank destroyer battalions were credited with the destruction of 306 enemy tanks. Many of these kills occurred during the reduction of the German salient. The events experienced by the 820th Tank Destroyer Battalion merely verified the shortcomings and vulnerabilities of towed guns. Any remaining support for towed guns disappeared during the Ardennes campaign. After the conclusion of the Ardennes battle, towed battalions were disbanded because of the heavy losses that they incurred.

²⁶ Tank Destroyer Doctrine in World War II by Philip Dwight Jones, Military Review

²⁷ The Evolution and Demise of Tank Destroyer Doctrine in the Second World War by Major Bryan E. Denny, 1990.

The fighting in the Ardennes completely discredited the towed guns of tank destroyer units. Their lack of mobility to maneuver and achieve flank shots necessary to knock out heavier German armor contributed to their losses.

The two field manuals that dictated policy to the 820th Tank Destroyer Battalion was FM 18-21 Tank Destroyer Towed Gun Platoon April 1944 and FM 18-22 Tank Destroyer Reconnaissance Platoon November 1944. As already described, the tank destroyer platoons were distributed along the approaches to the Losheim Gap having been attached to support the cavalry elements. The northern positions of the tank destroyer platoons; Lanzerath, Berterath and Merlscheid were especially vulnerable. As units across the Ardennes had been deployed dangerously thin these troops did not have the support of additional forces except for their own reconnaissance platoons.

FM 18-21 states that the platoon commander should take advantage of infantry and the fire and mortar support that they can provide. It also indicates that counterattack plans should be worked out with supporting infantry. In this case it was not possible as the battalion was either attached to cavalry or was left to their own infantry support in the form of the reconnaissance platoons. When friendly units are not covering the platoon area it was suggested that an observer be placed well forward to report on any enemy reconnaissance activities. Observation at night is provided by listening posts placed forward of the guns. The approach of the enemy is signaled by prearranged flares or shots. The responsibility of reconnaissance platoons was to execute missions of ground reconnaissance and security. Provide security prior to establishing positions, secure flank and rear area. Basically performs the same missions as mechanized cavalry reconnaissance platoons. They are equipped with the same type of vehicles minus the light tanks and assault guns.

The positioning and distribution of the guns was also dictated by FM 18-21. The M5 guns were to be sited to cover obvious approaches that could be used by advancing armor. The crews were to determine whether or not the range is long enough to enable the destruction of enemy armor entering the sector before they can be overrun or bypassed. Crews should also be prepared to move the guns to preselected firing positions if necessary. Each gun was to be covered by small arms and machine guns and when available mines and barbed wire should be utilized. The guns should be dug in to create a lower silhouette and measures be taken to reduce the amount of muzzle flash. Contrary to this, many photographs exist showing guns positioned and manned contrary to standard doctrine. It was suggested that guns should not be "sky lined" or positioned on the crest of a hill as this can present an easy target for the enemy. The only advantage to this position is that the enemy will have difficulty in adjusting artillery fire on the top of a hill. Gun ammunition was to be kept at the rear of gun positions or on the prime movers; the determining factor was to be whether or not movement was anticipated. The ultimate positioning of vehicle machine guns depends on the greater threat; infantry or air attack. Machine guns not retained on their respective vehicles should be placed on ground mounts in the vicinity of the 3" guns. The guns should be sited so that 360 degree fire could be obtained. Guns that can be overrun by tanks approaching through an area outside the fields of fire must be

protected by other guns. The establishing of forward and flank outposts is stressed through the manual. This was required to allow ample time for gun crews to prepare for the enemy intrusion and it also verifies the possible vulnerability of the guns and their crews.

FM 18-21 also covers the possibilities of moving the guns if necessary. Standard doctrine admitted that towed guns can seldom maneuver against advancing armor. Considering the weight of the weapon it was not practical to move it from one position to another during combat. Often a movement cannot be made until dark because the towed gun is vulnerable during movement. Such movements were to be made during daytime lulls. Only when the enemy is unable to bring direct or indirect fire on the positions can the guns be moved. The manual also states that hostile armor should never be allowed to outflank the gun emplacements. Reconnaissance platoons were to serve as an early warning system and outposts were to be selected overlooking the routes of tank approach. Primary weapons specified for close in or night defense were anti tank and anti personnel mines, flares and grenades as well as small arms. FM 18-21 also naively states that “only the strongest of infantry attacks, supported by artillery can make headway when positions are well selected and prepared. The security sections machine guns reinforced by machine guns from the prime movers and the 3” guns employing high explosive fire, assisted by a few riflemen can stop many infantry attacks”. This was possible with additional supporting elements such as infantry or tank support, a benefit that the platoons to the north of the cavalry positions did not have.

Doctrine states that it may be necessary to fight against overwhelming odds until dark. The losses in such an event usually will not be as great as those which would result during a daylight withdrawal. Any damaged vehicles incapable of moving are usually towed to a cover position in the rear where they await mechanical repair. Should prime movers be immobilized or destroyed, guns may be towed by other vehicles.

An effort has been undertaken here to examine cavalry and tank destroyer doctrine as it was written and whether or not it was valid when taken into actual combat conditions. The historic account of the cavalry has always been glossed over in the endeavor to investigate and describe the overall battle in the Ardennes. Because of this the saga of the cavalry becomes almost insignificant and simply a small note within a very large battle. The predicament of the tank destroyer troops of the 820th Tank Destroyer Battalion has been buried even deeper and becomes even more obscure.

Many previous published versions of the battle in the St. Vith sector describe accounts of cavalry troops abandoning the villages of Lanzerath, Merlscheid and Berterath. In fact, there were no elements of the cavalry group deployed within these villages. As mentioned earlier components of Company A of the 820th had been stationed in these small towns. A combination of towed gun crews and their own reconnaissance elements had been in defensive positions without any immediate support. As with the deployment of the cavalry troops this was only to be a temporary defensive mission. The first indication of problems at the villages is when an I & R platoon of the 99th Infantry Division realized that the “cavalry” troops had pulled out of Lanzerath. The 99th Division knew that the cavalry group patrolled and maintained the area

between their right flank and the left flank of the 106th Infantry Division. It was just assumed that cavalry units were in Lanzerath, this was not the case.

It is not clear how the tank destroyer troops had established and maintained their positions to the north of the cavalry squadron. An examination of the after action reports does not reveal much in this respect. There are no details on how they setup and maintained these defensive positions. Initial indications reveal that these outposts were overwhelmed very quickly and without infantry support succumbed to the German advance without much of a fight. They did receive orders to withdraw, probably from the 820th headquarters at Manderfeld. As with the cavalry the paramount concern was to preserve the units and not allow them to become surrounded and destroyed.

What is known is that most of their 3" guns were left behind and as a result when cavalry elements moved north in an effort to reestablish these positions; attacking Germans were using these weapons against the tank destroyer troops and the cavalry units. As stated earlier, the tank destroyer troops had been ordered to withdraw taking as much equipment with them as possible. However they were also ordered to abandon or destroy anything that would hinder their immediate withdrawal.

In this case tank destroyer doctrine was ignored or not even considered. As indicated this front had been thinned out and as a result needed to be manned with whatever means was possible. Within the expanse of the Losheim Gap this meant a mixture of cavalry and tank destroyer troops. By December 29 it was required that all tank destroyers would be self propelled. As a result of losses in the Bulge it was requested that all towed battalions be converted to self propelled. The War Department approved the theater's request on January 11, 1945.