

## Circle the Wagons:

 The History of US Army Convoy SecurityRichard E. Killblane




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by
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## Foreword

Circle the Wagons: The History of US Army Convoy Security is the 13th study in the Combat Studies Institute (CSI) Global War on Terrorism (GWOT) Occasional Papers series. Transportation Corps Historian Richard Killblane's manuscript on convoy security is another case study modern military professionals can use to prepare themselves and their soldiers for operations in the current conflict. This work examines the problems associated with convoy operations in hostile territory and the means by which units can ensure they are ready to deal with an enemy ambush or assault.

Killblane provides a brief overview of the US Army's experience in convoy operations and convoy protection from the period of the War with Mexico up to and including the current conflict. He then presents an indepth look at the development of "hardened convoy" tactics, techniques, and procedures (TTPs), focusing on the 8th Transportation Group's experiences in Vietnam. That group had the dubious honor of conducting its missions along Highway 19, arguably the most dangerous stretch of road during the Vietnam War. Killblane describes the group's initial experiences and how, over time, various commanders and soldiers developed methods and means of defeating the enemy's evolving tactics.

The hardened-convoy concept is one that, frankly, receives little attention by Army leaders in peacetime- the lessons from which each new generation of soldiers seems painfully destined to relearn. Logisticians, contractors, and those military leaders responsible for such operations in the current struggle against terrorism will gain useful knowledge for developing hardened-convoy TTPs from this occasional paper. More important, we at CSI desire that this study be read by future generations of leaders, before they have to conduct such operations, so that their mission and the soldiers entrusted to them will prosper from the lessons of the past. CSI-The Past is Prologue.

Timothy R. Reese<br>Colonel, Armor<br>Director, Combat Studies Institute

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## Chapter 1

## Introduction

When one thinks of war heroes, the image of truck drivers usually does not come to mind. Truck drivers are commonly viewed as merely the lifeline between the customer and his source of supply-just one more link in the lengthy supply line stretching back to the point of origin in the United States. But when faced against an enemy that attacks convoys, truck drivers must fight as front-line troops. When put in harm's way, drivers have demonstrated tremendous valor and ingenuity.

After the successful liberation of Iraq from the totalitarianism of Saddam Hussein, during Operation IRAQI FREEDOM (OIF) from 20 March to 1 May 2003, the former Iraqi army soldiers and Fedayeen militia loyal to the Hussein regime resurfaced as insurgents. They began attacking convoys in June 2003 with very simple improvised explosive devices (IEDs) or directfire weapons on single vehicles. From that time on, the American convoys came under an increasing number of attacks by guerrilla forces.

Many transportation units in Iraq soon realized the enemy selectively honed in on specific targets. While foreign terrorists had arrived in country fully prepared to die for their cause, the home-grown Iraqi insurgents preferred to live to fight another day. Hence, they selected targets that would enable them to escape. The units that armed their trucks discovered the enemy would let their convoys pass to attack the weaker-looking ones following behind. In time, transportation units realized the enemy tended to target unprotected convoys and isolated vehicles. Units then began to armor and arm their trucks with machine guns and MK-19 grenade launchers. For those trucks not designed for ring mounts, units constructed little plywood and sandbag "dog houses" on the beds of the trucks and seated single machine gunners.

It did not take long for units to realize sandbag walls, as outlined in US Army Field Manual (FM) 55-30, Army Motor Transport Units and Operations, were impractical. The vibration caused by the rough roads literally caused the bags to fall apart. Fortunately, each battalion seemed to find soldiers in its ranks with welding skills to fabricate armor protection out of sheets of steel. Soon, a variety of designs adorned HMMWVs and trucks. Most of the initial attempts at protection created a false sense of security, though. Once the units conducted ballistic tests, they learned many of the plates failed to stop small arms or shrapnel. Time would prove that most convoys lacked sufficient weapons to ward off a determined attack.

Unwittingly, most of the transportation units in Iraq were reinventing the wheel. They walked step-by-step along the same path gun-truck designers had nearly four decades before them. The solution that developed out of Iraq had roots reaching far back into history. With the exception of the Vietnam veterans still serving in the National Guard and Reserve companies, and a few of the soldiers who happened to visit the Transportation Corps Museum, most currently in Iraq do not know the US Army has faced a similar threat before and defeated it. The solution was the gun truck.

Vietnam gun trucks and subsequent convoy doctrine evolved with changing enemy tactics, leaving behind both an answer to the problem of convoy security and a legacy of heroism. During the Vietnam War, two truck drivers earned the Medal of Honor. Similar to a large-scale convoy ambush from September 1967, the insurgents launched a wide spread offensive in Iraq in April 2004 and tried to destroy entire convoys. The war had changed for truck drivers in Iraq, just as it had for those in Vietnam.

Studying convoy-security operations throughout the history of the US Army reveals certain patterns. While technology and tactics change, these threads of continuity, such as convoy organization and vehicle placement for example, are the fundamental principles that do not. Future doctrine should be developed from these principles. Twice in the Army's history it developed a sound convoy-security doctrine against guerrilla ambush tactics, in the 19th century and during the Vietnam War.

## Chapter 2 American Convoy Experience

Convoy security has been addressed in US military doctrine since the 19th century. Dennis Hart Mahan, the brilliant military scholar and West Point professor, in his chapter dedicated to convoy operations contained in An Elementary Treatise on Advanced-Guard, Out-Post, and Detachment Service of Troops, first published in 1847, describes the challenges facing 19th-century convoy commanders-challenges that equally resound with 21st-century relevance:

> To conduct a convoy in safety through an enemy's territory, where it is exposed to attacks either of regular, or of partisan troops, is one of the most hazardous operations of war; owing to the ease with which a very inferior force may take the escort at disadvantage in defiles, or other positions favorable to an ambuscade, or surprise, and to the difficulty to securing a long column, like that presented by a convoy, from a sudden attack. ${ }^{1}$

Unfortunately, the broad-front concept of war, an anomaly of the 20th century, caused the Army to forget the lessons it had perfected over centuries of guerrilla warfare with the indigenous population of North America. In Vietnam, truck drivers unknowingly devised tactics, techniques, and procedures (TTP) similar to what the Army had practiced in the past. As this study will illustrate, understanding the parallelism between 19th-century convoy security and Vietnam doctrine validates that the principles of the latter were sound.

The US Army has a long history of convoy experience. Whether fighting Indians or conventional armies, the Army has always had to protect its supply trains. The American Indian mastered the art of ambush and made the supply train a prime target. In conventional wars, the Army fought with narrow fronts, driving into enemy territory while securing its lengthy supply lines. Every field army drug a supply train behind it and organized its combat forces to defend it, but the lessons learned from detached resupply operations have the most applicability to convoy operations today.

From the birth of the American Army, a column of any vehicles was simply called a train. By the 19th century, the Quartermaster Department had hired civilian teamsters to drive its wagons, which remained the policy until 1910. For over a century, the responsibility of Army trains fell to civilians on the Quartermaster payroll. The understood doctrine for organizing a
convoy remained the same throughout that century. For control purposes, trains have usually been divided into small march units. A train of up to 500 wagons was divided into divisions of 100 wagons separated by 30 to 40 yards and further divided into sections of 25 to 30 wagons. A civilian wagon master along with his assistant wagon master supervised each section. The chief wagon master supervised the entire train. Since 100 wagons occupied a mile of road it made sense, whenever possible, to have the wagons travel in double file. ${ }^{2}$

In the 19th century, the term convoy referred specifically to any column of vehicles with an armed escort. The convoy's combat-arms escort was divided into three parts: the advance guard, main body, and rear guard or reserve. According to doctrine, the convoy was to post scouts out front and flank at least three miles from the train. In practice, however, the Army threw flankers out to the nearest high ground, usually a mile away. These lead elements provided early warning and initial defense for the convoy. The size of the escort depended on many factors such as the importance of the cargo and size of the threat. Mahan states that, "The escort should be of sufficient strength to beat off any presumed force that the enemy can bring against it. A weak convoy will only hold out a temptation to the enemy to attack the convoy." During General Winfield Scott's invasion of Mexico in 1847, his supply line stretched from Vera Cruz to Mexico City. Large bands of banditos fought as guerrillas in his rear attempting to prevent Scott's wagon trains from reaching their destination. Scott detailed a force of over a thousand infantry and cavalry to ensure the safe passage of his wagon trains. ${ }^{3}$

Before and after the Civil War, the Army fought a guerrilla war against Indians on the prairies and deserts of the western and southwestern United States. From the moment the wagon train left the fort's security, it faced the constant threat of ambush by hostile war parties. From then on, "Indian country" has referred to a contested area without any secure rear area. In 1859, Captain Randolph B. Marcy published The Prairie Traveler as a guide for soldiers serving west of the Mississippi River and settlers crossing the Great Plains, wherein he recommended that 50 to 70 men were sufficient to defend the trains since Indians attacked in small war parties ${ }^{4}$

During the 19th century, the Army had three combat-arms branches to defend the trains: cavalry, infantry, and artillery. Cavalry made the best choice to reconnoiter the route as the advance guard. The 1862 Army Officer's Pocket Companion: A Manual for Staff Officers in the Field, translated from the French equivalent, states that the cavalry should not represent more
than one-fourth of the escort force in broken terrain and one-sixth to oneeighth in hilly terrain. Captain Marcy concurred that the advance and rear guard should consist of well-mounted men. Because of their mobility and speed of march, the cavalry provided the best combat arm to intercept the ambush before the main body arrived. When terrain permitted, the convoy commander deployed his advance and rear guard in skirmish formation. According to Mahan, one-half of the escort should serve as a reserve and one-fourth as a center guard for the convoy; the remaining quarter should be divided in half with one at the head of the column and the other closing up the rear. ${ }^{5}$

The 1862 manual also explains that the infantry's main body should walk by the side of the road in the center of the convoy when in open country and at the head or rear of the convoy in restrictive terrain. Mahan recommends placing the reserve near the center of the convoy, explaining that an attack on the main body would come at the front, center, or rear. At the center, the reserve can respond equally to either the front or rear. He adds that, when coming upon a defile or likely ambush location, the reserve should send a detachment forward to secure and reconnoiter the area before the convoy passes. Mahan also explains the need for flankers, preferably cavalry, to create a circle of early warning and defense for the train. ${ }^{6}$

During the Indian Wars, the Army relegated the duty of guarding the main body of the wagon trains primarily to the infantry. The wagons traveled at two and a half miles per hour, a little slower than the pace of a walking infantryman. In addition, the Indians feared the long-range accuracy of the infantry rifles more than the cavalry carbines' shorter range. ${ }^{7}$ The role of the other branches was optional. As cumbersome as 12-pound mountain howitzers were, they greatly deterred against a massed Indian attack. Pioneers or engineers sometimes accompanied convoys to repair roads, remove obstacles, and erect defenses. More often during the Indian Wars, the infantry did the work of the engineers. Basically, the escort consisted of any mixture of these forces. ${ }^{8}$

No written doctrine, however, identified whether the wagon master or the escort officer should be in charge of the convoy. Generally, the Army officer had seniority over the civilian employee, but the wise officer would consult the seasoned chief wagon master for his expert advice on the conduct of the convoy. According to Captain Marcy, the captain of the convoy was to be selected for his good judgment, integrity of purpose, and practical experience. The convoy commander was responsible for sending out the reconnaissance party and for selecting the time of departure and order
of march. He also made decisions concerning how to defend the trains. ${ }^{9}$
If Indian war parties were sighted, the commander used the common practice of forming his wagons into a circle, or corral, with the animals turned toward the center. Mahan describes drawing them up in a line or two and forming a square, rectangle, or circle depending upon the terrain. If time permitted, the teamsters would unhitch the animals and run the left front wheels of each wagon up against the right rear wheels of the preceding wagons to form a tighter corral. The animals would then be picketed inside the corral to prevent them from stampeding. Meanwhile, the infantry would either defend from inside the corral or in skirmish formation outside, depending upon the number of warriors. This practice seemed to have worked against the Indians since history does not record any great destruction of a supply train by them. On the other hand, Civil War guerrilla leaders, like Brigadier General Stand Waitie and Colonel John Singleton Mosby, did successfully ambush and capture supply trains. ${ }^{10}$

By the time the Army published its Field Service Regulations in 1914, the doctrine for convoy operations had been refined. This most likely resulted from the experience gleaned during the Indian Wars and how the Army envisioned the conduct of its next war. The organization of the wagon train remained fairly unchanged, except that noncommissioned officers (NCOs) now served as wagon masters in charge of sections of 20 to 30 wagons. Since the Secretary of War had also turned the role of driving wagons over to soldiers in 1910, each section maintained 25 -yard intervals with two-yard intervals between wagons and teams. According to the Regulations, the slowest teams were to be placed in the lead to set the pace for the march. ${ }^{11}$

The escort still maintained the three main elements, but the 1914 manual defined their organization in more detail: the cavalry was to precede the train by three to five miles scouting the front and flanks, the advance guard was to have guides and interpreters, the cavalry was to carefully examine bridges, defiles, and surrounding country (where ambushes were most likely) and then leave temporary guards until the support arrived. The rest of the advance guard was to march about a mile ahead of the train. Providing the bulk of the defense against attack, the main body was to march at the most important point, either at the train's head, center, or rear. If an infantry force marched in the center, a section of infantry (the equivalent of three squads) was still to march at the head and rear of the trains. The rear guard usually represented one-sixth of the total escort. The size of the entire escort again depended on the importance and size of the train,
risk, nature of the country, length of the journey, and enemy threat. ${ }^{12}$
The Field Service Regulations did, however, newly introduce the role of the military police (MPs) to the convoy escort. MPs were "assigned to preserve order, protect property, render assistance in case of accidents, and take part in the defense." They also provided a strong guard in cases where the convoy employed locally hired or impressed transportation. ${ }^{13}$

According to the Regulations, the senior combat-arms officer of the line on duty with the troops commanded the convoy, while another officer commanded the train. The commander of the convoy was again advised by doctrine to consult with the commander of the train on matters of starting time, length of marches, halts, and organization. The doctrine still recognized the separate areas of expertise, trains, and escort, however. ${ }^{14}$

Convoys were meant, by regulation, to ensure the timely delivery of cargo, not engage and destroy the enemy. If harassed by a small enemy force, the convoy was to continue under the protection of the escort. When in the presence of a large enemy force, the drivers were to draw their wagons together and park them in a column of sections or half sections, with 20 yards between the sections and six to eight yards between wagons. A more compact formation could be achieved by bringing a column up and placing the wagons axle to axle, then tying the animals to picket lines in front of the wagons. If a superior enemy force threatened attack, then the escort commander could throw out skirmishers to delay the attack and buy time so the train could organize a defense. The drivers would either draw the wagons up into two lines facing each other, or form a square, rectangle, oval, or circle. The diamond-shaped corral was considered the most effective in case of surprise attacks, as it could be formed quickly and the march could resume soon after. The escort's commander would then select the best ground between the train and the enemy from which to defend. If time permitted, defenders could then dig trenches and string up barbed-wire entanglements. At the same time, the convoy commander would dispatch couriers to the nearest combat unit for help. Most important, the escort was to fight only when necessary and would not pursue when they repulsed the enemy. ${ }^{15}$

Transportation's most significant technological advancement affecting land convoy operations was the internal combustion engine, which gradually replaced wagons with motor-powered trucks. General John J. Pershing used trucks to supply his Punitive Expedition into Mexico in 1916. He employed more truck companies when he took the American Expeditionary Force to France in 1917. Trucks traveled at a rate of eight to 14 miles per hour.

Transportation units supplying the Army then traveled at a faster rate than the units they supported, which created a problem because the traditional infantry and cavalry escort could not keep pace with the motor-truck trains. Consequently, some experimentation occurred with mounting machine guns on cars and later armoring the cars. Pershing's Punitive Expedition fielded a few armored cars, but the officers and units fielding them thought of them in terms of augmenting the traditional cavalry role of reconnaissance. World War I saw even greater experimentation with armored cars, but because of the changes in the battlefield, they were not needed to support convoy operations.

During World War I, the front line stretched from the English Channel to the Swiss Alps. With the advent of machine guns, bolt action, and magazine-fed rifles with higher rates of fire, smaller combat units could cover larger fronts. Trench warfare in France ground the war into a stalemate; the lack of a threat to convoys thus created the concept of the safe rear area. The Field Service Regulations of 1914 also organized the theater of operations into the zone of advance and the zone of line of communications with combat units responsible for the zones' subdivisions. Having no enemy threat of attack to the wagon and truck trains rendered the requirement for escort by a combat-arms element unnecessary. While the armored car might have replaced the cavalry's role in convoy duty, the nature of the war negated it.

The Manual of the Motor Transport Corps of 1918 and the Field Service Regulations, revised in 1923, reflected the lessons of World War I and made no more reference to convoy operations. The term convoy, however, remained in use to describe any column of trucks. Throughout most of the 20th century, the concept of war on a broad front allowed for a relatively safe rear area known as either the zone of interior or communication zone. The US Army soon forgot its organization and doctrine for convoy operations. ${ }^{16}$

During World War II, the most serious threat to convoys was interdiction by enemy aircraft. The only innovation in convoy security was the design of a ring mount for machine guns. Drivers attached ring mounts to the passenger side of their cabs to defend against aircraft. In the few cases where convoys ran into retreating enemy soldiers, cut off behind the lines, the ring-mounted machine guns were used in the anti-personnel mode. During the Korean War, the Communist North Koreans and Chinese often raided behind American lines and ambushed convoys. As they did in World War II, the truck convoys traveled without any escort. At first, the truck companies had few machine guns. However, transportation units soon
found the machine guns attached to the ring mounts worked well against enemy soldiers. For the first time, cargo vehicles had self-defense weapons that inspired respect from the enemy. ${ }^{17}$

Yet, it was not until the Vietnam War that transportation units faced a continued and intense enemy effort to shut down a main supply route. It was a war without a front line and safe rear area. The US Army fought a guerrilla war in Vietnam from 1962 to 1973. Previously, the Viet Minh guerrillas had annihilated a French brigade in a series of attacks and ambushes in 1954. Their successor, the North Vietnamese Army (NVA), nearly destroyed an entire US convoy in September 1967. The nature of the war had dramatically changed for the truck drivers. From 2 September 1967 onward, truck units of the 8th Transportation Group would face mines, sniping, and ambushes on a daily basis against a guerrilla force with decades of experience. This became the turning point in the war for control of the road, resulting in new, revolutionary US doctrine for delivering cargo in the face of intense enemy opposition.

In Vietnam, the Army faced an adversary highly skilled at his particular type of warfare. The Vietnamese Communists under Ho Chi Minh had fought against the Japanese occupation during World War II. After that war, they fought against French colonialism. With the annihilation of Mobile Group 100 along Route 19 and the defeat at Dien Bien Phu in 1954, the French abandoned their colonial aspirations in Indochina. A short interlude of peace followed while the local Communist guerrillas, the Viet Cong (VC), built their base of support in South Vietnam. They initiated their guerrilla war in 1960 and the US Army Transportation Corps helicopter units joined US advisers in Vietnam in 1962. US Military Assistance Command, Vietnam (MACV) assumed a greater role in the ground war in 1965. The Army then waged a war of attrition against both local VC and hardened North Vietnamese Army (NVA) regulars fighting as guerrillas, hoping to kill the enemy off faster than North Vietnam could replace its losses. The enemy tried to wear down American morale and win through a protracted war.

Because of the annihilation of Mobile Group 100, General William Westmoreland, Commander of MACV, felt the Central Highlands were critical to the defense of South Vietnam. If the enemy took control of this area, it would divide the country. Consequently, Westmoreland garrisoned combat units along Route 19 at An Khe and Pleiku to prevent the Central Highlands from falling into Communist control and to show the guerrillas the Americans could keep Route 19 open. It was an open challenge. In September 1967, a very well-trained and experienced guerrilla army accepted
that challenge by ambushing convoys.
Luckily, these ambushes occurred on the roads driven by soldiers of the 8th Transportation Group. As Chapter 3 will specifically detail, the 8th Group hardened trucks, built gun trucks, and developed a doctrine around them, pioneering the concept of the hardened convoy. This was unique in that the gun truck was a dedicated gun platform rather than a self-defense system mounted on a task vehicle. The 8th Group continued to test, develop, and refine the idea and by 1969, it had perfected the hardened-convoy concept that would remain in effect through the end of US logistical operations in Vietnam in 1972.

As Colonel Joe O. Bellino, Commander of 8th Transportation Group, explained in his 1968 report, the 8th Group added a new chapter to the history of the transportation corps. By understanding the trials and errors of this history, soldiers in current and future wars can hopefully eliminate making similar mistakes and improve upon the solution. Many truck drivers in Vietnam believed that had the 8th Transportation Group used gun trucks before September 1967, the enemy may not have attempted ambushing an entire convoy serial. Likewise in Iraq, introducing gun trucks and their related doctrine may have deterred the enemy from escalating the size of assaults on US convoys.

During Vietnam, the success of the hardened convoy spread to two other group-level commands, but one transportation group opposed the use of gun trucks. Many officers, past and present, argue that diverting transportation assets from truck companies to convoy security is not the mission of the transportation corps-it is the military police or combat arms that should use their assets and training to conduct convoy security. Chapter 4 will examine that alternative to gun trucks as it was tried in Vietnam.

The campaign to keep the supply routes open in Vietnam is strikingly similar to challenges faced in Somalia, in Iraq, or in other guerrilla wars of the mechanized era. As will be discussed in the conclusions of Chapter 5, the fundamentals of convoy organization and security remain unchanged. What has changed, though, is technology. History allows us the luxury of looking back, of learning from problems sucessfully and unsuccessfuly confronted by those who have gone before, so that we can use our modern technological advances to improve the solutions.

## Notes

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## Chapter 3

## Development of the Gun Truck and the Hardened Convoy

Guerrilla warfare is essentially a war without a front. Instead of fighting with a traditional front line and a safe rear area, MACV sliced South Vietnam into four military regions or corps tactical zones. Three of these were further divided into areas of operation (AO) where Army combat divisions or brigades conducted search-and-destroy operations, while the US Marines initially had responsibility for I Corps. Typically, counterguerrilla operations resembled slicing up a pie and making each unit responsible for its slice. The 1st Logistics Command established four main logistic bases to supply the units in these slices: Da Nang in the I Corps Tactical Zone, Qui Nhon in the northern II Corps Tactical Zone, Cam Ranh Bay in the southern part of the II Corps Tactical Zone, and Saigon complex in III Corps Tactical Zone (see Figure 1). From these port areas, transportation groups cleared cargo from the port to the marshalling yard, and then delivered it to combat units at their base camps. Routes 1 and 14 ran the length of South Vietnam with a few east-west unimproved roads connecting them. The 8th Transportation Group operated convoys along Route 19 , the most heavily ambushed road in Vietnam.

During the three troop build-ups from 1965 to 1967, three truck battalions were deployed to Qui Nhon and Pleiku constituting the 8th Transportation Group. The 27th and 54th Battalions ran convoys from Qui Nhon westward along Route 19 to combat units at An Khe in the Central Highlands and Pleiku in the Highland Plateau. The total one-way trip ranged about 110 miles. From Pleiku, the 124th Battalion ran convoys in the opposite direction to Qui Nhon and out to camps along the Cambodian border to places like Dak To and Kontum. Convoys were generally organized by type of vehicle. The 27th Battalion consisted of tractors and trailers and the 54th Battalion contained the $21 / 2$-ton and 5 -ton cargo trucks. A mixture of both made up the 124th Battalion.

From the coastal plain, Route 19 snaked up to An Khe Pass, where trucks slowed down to a crawl to negotiate the Devil's Hairpin (see Figure 2). Once the pass was crossed, the road leveled out. Route 19 was an unimproved dirt road with potholes as deep as one foot in some areas; therefore, drivers could not drive over 15 miles per hour. Convoys could not go faster than about four miles per hour to climb the winding road to Mang Giang Pass (see Figure 3). Trucks would drive bumper-to-bumper up these mountains to push slower trucks in tandem. Their destination, the base camp around Pleiku, was on the other side of an area known as the

Highland Plateau. It usually took half a day to reach Pleiku and unload, then another half day to return. Westbound convoys were called Friscos and eastbound convoys New Yorkers. Trucks ran in convoy serials of 30 to 40 trucks and would usually return to their home base after dark due to the slow rates of speed. ${ }^{1}$


Figure 1. Major Logistical Commands.


Credited to James Lyles.
Figure 2. An Khe Pass.


Figure 3. Convoy Along Pass.

Combat units were responsible for the security of their AO through which the lines of communication stretched. The Korean Tiger Division was responsible for the first eight bridges from Qui Nhon to the base of the mountains. They were a very disciplined unit, but their method of responding to enemy resistance was often brutal. Consequently, the enemy did not launch many ambushes in the Republic of Korea (ROK) sector and the drivers, therefore, felt safe. However, the Koreans did not guard the slope leading up to An Khe Pass.

By 1967, the US forces based out of An Khe and Pleiku shared responsibility for securing the road between them. At the top of the pass, the 504th MP Battalion set up an office in a container express (CONEX) for that checkpoint. The convoys stopped to take a break from driving just outside the gate of the 1st Cavalry Division camp at An Khe. The 1st Cavalry Division had a tank and two armored personnel carriers (APCs) guarding the bridge on the west side of An Khe Pass. Each morning, the MPs would clear the road with two gun jeeps armed with M-60 machine guns from An Khe to Mang Giang Pass, then into Pleiku where they had another CONEX office. The MPs opened and closed the road each day, but did not escort the convoys. In case of an attack, the 4th Infantry Division (Mechanized) guarded a bridge at the base of Mang Giang Pass (Figure 4) and had a reaction force on call. Other than that, the road remained unguarded by combat units. Yet, for the war's first two years the enemy threat was limited to occasional sniping against convoys and mines. Complacency set in. ${ }^{2}$

## Origin of the Gun Truck

Between 1965, when the US Army took over the ground war in Vietnam, and the ambush of 2 September 1967, enemy harassment consisted of squad-size guerrilla units shooting at individual trucks or placing mines along the road. Most of the sniping occurred along Highway 1 against trucks driving the night convoy to pick up cargo and deliver it to the marshalling yard. The engineers swept the roads every day for mines buried in the road or in culverts, but often overlooked small objects like Coke cans, which is where the enemy liked to place explosives to blow the tires off passing trucks and cause wrecks. This was especially dangerous in the mountain passes. Initially, the enemy's intent was not to shut down the supply line, but to simply harass the convoys. ${ }^{3}$

In the summer of 1967, Lieutenant Colonel Melvin M. Wolfe, executive officer (XO) of the 8th Transportation Group, realized his drivers had to protect themselves. He had conducted ring-mount training for drivers


Credited to the Bellino Report.
during World War II; yet, the 8th Group did not have ring mounts and the depot units had no idea what they were and could not order them. As a substitute, Wolfe thought of constructing sandbag pillboxes on the backs of $2 \frac{1}{2}$-ton trucks and placing one man in each with an M-60 machine gun. Lieutenant Colonel Phillip N. Smiley, Commander of the 27th Battalion, directed his battalion to build the first two gun trucks. ${ }^{4}$

To protect themselves from mines, the 8th Group crews added sandbags to the floor of their trucks, on the hood in front of the windshields, and even on the fenders. The latter did not work because of the engine's heat and vibration. Warrant Officer Nichols, the group maintenance officer, decided to place steel plating on the sides of the trucks for protection.


Figure 5. The First Gun Truck.
Soldiers scrounged around for plates, finding enough for three to four trucks. This was not the first attempt to harden vehicles in Vietnam. Captain John Horvath, Commander of the 64th Medium Truck Company, had fully armored his convoy commander jeep in the fall of 1966. The 54th Battalion ordered more ring mounts and steel plates, though the plates did not arrive until September. Up to that point, the enemy threat did not generate a greater sense of urgency. ${ }^{5}$


Figure 6. 8th Group 2 1/2-Ton Gun Truck with Steel Plates. This truck has sandbagged floors and two pedestal-mounted M-60 machine guns.

Route 19, however, had an ominous past. In 1954, the Viet Minh had annihilated French Mobile Group 100, an entire brigade-size force, along Route 19, ultimately contributing to the French defeat. Most 8th Group soldiers drove along Route 19 completely oblivious of its past.

## Turning Point, 2 September 1967

On 2 September 1967, the North Vietnamese Army (NVA) changed the object of its operations. It found a weakness in the American air-assault concept. Realizing the combat forces based at An Khe and Pleiku were entirely dependent upon trucks for fuel and supplies, the NVA decided to sever this vital supply line. An eastbound convoy of 37 vehicles under the control of the 54th Battalion was returning from Pleiku. Because of mechanical problems, a 5,000-gallon tanker fell back, splitting the convoy in two as it approached the treacherous An Khe Pass. At that time, the jungle grew right up to the road, so close that the drivers could reach out and touch the branches. ${ }^{6}$

At 1855, an NVA company struck the lead gun jeep on An Khe Pass with a 57 mm recoilless rifle round, killing Sergeant Leroy Collins and wounding his driver and machine gunner. Simultaneously, the enemy sprang
a secondary ambush on the rear half of the convoy, setting the slow moving tanker on fire. ${ }^{7}$
J.D. Calhoun, of the 666th Transportation Company, was driving the eighth $2^{1} / 2$-ton truck in the line of march. He barely heard the firing of small arms over the roar of his diesel engine. Calhoun did not realize he was in an ambush until he saw the impact of bullets on the truck ahead of him, which came to a halt. He thought to himself, "Oh crap. I can't sit in a truck. I've got to get out and get behind something." The drivers were completely taken by surprise. The kill zone was spread out over 700 to 1,000 meters, and no one knew the 8th Group's procedure for reacting to a convoy ambush. The drivers of the Triple-6, during their training with the Ranger School at Fort Benning, Georgia, had learned to get out and return fire. Soldiers in this ambush had no other choice since the disabled trucks ahead of them blocked the road. Calhoun jumped out and took cover between his truck opposite the hillside. However, stopping turned out to be a fatally wrong move. As drivers climbed out of their vehicles to return fire, the NVA swarmed down over the trucks. A convoy halted in the kill zone was exactly what the enemy wanted. Since the drivers were support troops, they did not carry much ammunition, and what they did have was fired up quickly. ${ }^{8}$

In 10 minutes, the enemy had destroyed or damaged 30 of the 37 vehicles, killing seven men and wounding 17. Spooky, an AC-47 gunship, arrived at 2020 hours, but the enemy had escaped under the cover of darkness. The deadly nature of the convoy ambushes had intensified. ${ }^{9}$

After two years of fighting against the air-assault concept, the NVA had found the Achilles' heel of the Americans. The helicopters were entirely dependent upon trucks for fuel; hence, the convoys had become a major target. It became clear the enemy had rehearsed this ambush for days and then chosen to attack an empty convoy returning home late in the day so it could safely escape in the dark. This had been a successful dress rehearsal for future ambushes. Consequently, the NVA planned to destroy an entire convoy, as it had previously annihilated Mobile Group 100, and to shut down the vital American supply line before the upcoming Tet Offensive, which would begin on 31 January 1968. ${ }^{10}$

## The Hardened Convoy

Colonel Noble Taylor had just relinquished command of the 8th Group before the 2 September ambush and Lieutenant Colonel Wolfe, then the group XO, filled in for a few days until Lieutenant Colonel John Burke,

Commander of the 124th Transportation Battalion, came down from Pleiku. Burke had date rank on Wolfe. He arrived in country with his battalion in August and established his headquarters at Pleiku. On that fateful Saturday, he received a call to report to his headquarters for the weekly com-mand-and-staff meeting. Because of the urgent message, Burke rode with the morning convoy out of Pleiku to Qui Nhon instead of the afternoon convoy, just missing the ambush. He assumed temporary command of 8th Group until the new commander arrived. ${ }^{11}$

Shortly after the ambush, Lieutenant Colonels Burke and Wolfe attended an informal meeting with other commanders called by Lieutenant General Stanley R. Larsen, Commander of I Field Force, Vietnam, at the 1st Cavalry Division's headquarters at An Khe. They reviewed each unit's responsibility and what could be done about the threats to the convoys. Since the 1st Cavalry had most of its combat units committed in the field and only a minimal rear guard in camp, it could not provide any units to guard the road. Larsen consequently ordered the 4th Infantry Division (Mechanized) at Pleiku to guard the road. ${ }^{12}$

From then on, tanks and mechanized infantry from Plieku guarded the checkpoints, usually located at trouble spots like bridges and culverts. The enemy had blown up most of the bridges, causing the trucks to slow down to negotiate the bypasses. Constant construction and repair of roads and bridges also impeded traffic, with bridges and culverts about every three miles. Each security force served as a reaction force in the event of ambushes. For safety purposes, they closed the roads at night and they did not guard the mountain passes.

Since combat-arms units were responsible for their section of the road, they controlled the convoys passing through their AO. Like the doctrine in the Zone of the Line of Communication established in 1914, the securityforce units in Vietnam could stop convoys if they detected trouble ahead. They also transmitted current intelligence about any enemy presence near the road. If the convoy disagreed with the security force's decision, the highway coordinator of the Traffic Management Agency would intercede as the final word. This coordination relied on radio communication; convoy briefings every morning included the current radio frequencies of the security forces guarding the road (see Figure 7). Convoy commanders had to call in and authenticate the frequency of the next security force at the top of An Khe Pass. They soon ran out of range of their battalion headquarters when they passed over the mountains and would then authenticate the frequency of the force at An Khe, which is where the convoy halted to
drop off supplies. The next frequency change took place with the unit at Mang Giang, and on the route's last leg the convoy commander switched to the frequency of the force based at Pleiku, his destination. Limited by their line-of-sight FM radios, convoy commanders had to rely on the combat units to relay any messages back to battalion headquarters. ${ }^{13}$


Figure 7. Convoy Briefing.
Also at the meeting, General Larson concluded that the trucks should not have been on the road at night. Larsen then ordered the security force to close the road for eastbound traffic at Pleiku at 1515 and An Khe at 1700, instead of 1900 , to deny the enemy the chance to ambush a convoy and retreat under the cover of darkness. To comply with this requirement, the convoys departed Qui Nhon at 0300 . The delay in return actually resulted from slow truck speed due to the poor road conditions.

In order to deny the enemy concealed positions close to the road, the 815th Engineer Battalion began clearing away vegetation 1,000 meters from both sides with heavy grading equipment called Rome Plows. When Colonel Garland Ludy later assumed command of the 8th Transportation Group, in September 1968, he increased the spraying of Agent Orange to defoliate the mountain passes. The Raymond International, MorrisonKnudsen (RMK) contractor consortium had already begun paving Route 19 all the way to Pleiku to prevent the enemy from burying road mines. They completed this by the end of 1967, just before the winter rainy season,
though weather still necessitated constant repair of the roads. Once Route 19 was completely paved, the convoys could leave later, drive faster, and return home by $1900 .{ }^{14}$

It was decided that, from then on, the MPs would send an escort of two gun jeeps. One would lead the convoy and the other would follow behind at a distance. Other than that, no combat vehicles would escort the convoys, but the convoys did have access to occasional air support. When intelligence reports indicated likely enemy activity, an L-19 "Bird Dog" observation plane would fly surveillance over the area. After the meeting with Larsen, both Burke and Wolfe concluded their convoys had to defend themselves. ${ }^{15}$

The first thing Lieutenant Colonel Burke did after the ambush was read the standing operating procedures (SOP). The 54th Battalion SOP, which was patterned after the 27th Battalion's and the 8th Group's, was primarily concerned with roadblocks and mines, and stressed never stopping. Only the 54th "Battalion S-3 Notes," written in early 1967, addressed what to do when confronting an ambush. Unfortunately, the 54th Battalion had no institutional memory of how to react to a convoy ambush. Major Nicholas Collins, 54th Battalion S-3, had consulted with other truck and infantry units about appropriately reacting to a particular threat. By popular consensus the SOP ended up including, "If caught in an ambush, halt in the center of road (shoulders may be mined). Take cover and return fire in the direction of the enemy, and be prepared to assault the enemy position and to fight your way out." The events of 2 September illustrated how damaging a large vehicular ambush could really be. ${ }^{16}$

8th Group's official SOP required that convoys obey speed limits and reduce speeds commensurate with road, weather, and traffic conditions. Convoy speeds normally ran around 25 mph , not to exceed 35 mph , but speed limits through villages were reduced to approximately 15 miles per hour. According to the SOP, "Speed generates carelessness." Original road conditions did not allow trucks to safely drive fast; however, shortly after the ambush, RMK finished paving Route 19 and convoys could sustain higher speeds in open areas. The truck drivers learned it was harder for the enemy to hit a swiftly moving target. Some convoy commanders briefed that trucks should drive as fast as possible. Staff Sergeant James Rose, for example, did not slow his convoys down when driving through the villages. Some traffic MPs did issue citations for speeding, but Rose used his MP escorts to keep the other MPs from slowing down his convoys. Consequently, friction sometimes arose between the convoy escorts and the traffic cops. ${ }^{17}$

The 8th Group SOP also directed that trucks maintain a 100 -meter
interval. This interval limited the number of trucks in the kill zone. Under these conditions, the 1,000 -meter kill zone of the 2 September ambush would have only caught 10 trucks instead of 37 . Ambushes occurred at places where traffic had to slow down. After 2 September, drivers began watching closely for changes in familiar scenes along the route, since changes in behavior usually indicated that an ambush lay ahead-changes such as the absence of people on the streets, a gathering of unusual looking people, or even civilian vehicles parked along the road waiting for the convoy to pass. Locals knew quite well what the enemy was up to in their area. The convoy commander briefed these procedures every morning. ${ }^{18}$

In the event of an ambush, someone with a radio would call, "Contact! Contact! Contact!" and all area support would be at the convoy's disposal. The most essential response was for thin-skinned vehicles to rapidly clear the kill zone. If possible, truck drivers were not to stop in an ambush for any reason, even if wounded. Those that could would drive out of the kill zone; those that could not would turn around and drive back to the nearest security checkpoint. If the vehicle was disabled, the driver would pull off to the roadside, dismount, and jump on a passing vehicle. Fellow drivers would take extreme risks to save other drivers. Some would pull right up to a burning fuel tanker or ammunition trailer to rescue a comrade. Officers also had difficulty resisting the urge to go back into the kill zone; too many violated the SOP at their peril. If the disabled vehicle could not pull off the roadside of the road, the vehicle behind would push it out of the way. If the task vehicles could not turn around they would all halt at 100 -meter intervals; the drivers would then dismount and provide security. ${ }^{19}$

Obviously, the SOP did not have all the answers, so Lieutenant Colonel Burke met with his battalion and company commanders to discuss what the 8th Group could do to protect its convoys. Up until that time a gun truck was any task vehicle with a single machine gun. It soon became a dedicated firing platform with several machine guns. The 8th Group initially borrowed M-55 Quad-50s mounted on M-35 2 $2^{1 / 2}$-ton trucks from the local artillery unit (see Figure 8). ${ }^{20}$

The 8th Group companies expanded Wolfe's original idea of building gun boxes on the backs of trucks. They built sandbag walls in the truck bed and tied them to the side rails to prevent the bags from falling over. Soon the drivers learned that rain-soaked sandbags were heavier than the steel plating, and that the weight of both quickly wore out the suspension on the trucks. Also, the bags kicked up dust caused by the often rough ride and, when hit by gunfire, tended to melt away. Coincidently, the steel plates had
begun to arrive that September, coming as a precut kit that included two quarter-inch steel door plates, three-quarter-inch plates for the bed of the truck, and a windshield cover. Drivers and mechanics in each company then hardened cargo trucks by reinforcing driver's side doors with the quarter-inch steel plates and building a box around the bed of the truck with the three-quarter-inch steel plates. The bolt holes and firing port were cut in exactly the same place on the steel plates. These kits were evidently designed in the United States, not in country, since the gunners never fired through the ports. The windshield cover was hinged so that it could be pulled down over the glass with only a small port through which the driver could see. Very few gun trucks used this because it restricted visibility.


Figure 8. The Bounty Hunter's Mounted Quad . 50 Caliber.
Maintenance personnel also cut up the 8 -foot by 8 -foot steel cubes discarded by the Navy, which had served as floats for the pier until the DeLong Piers were installed. Drivers continued to reinforce the floor and walls of their trucks with sandbags to protect against mine blasts. They built their first gun trucks on $2^{1 / 2}$-ton trucks. Every truck company had M-35 $2^{1 / 2}$-ton administrative vehicles, and converting these vehicles did not deplete the fleet of task vehicles. The commanders subsequently increased the number of gun trucks to three per convoy of 30 trucks instead of one. ${ }^{21}$

These new gun trucks added two M-60 machine gunners in the box. The designers of the kits had cut firing ports in the steel walls thinking the machine gunners could fire their M-60s through them. This was not practical. The gunners preferred to fire over the top of the walls. The first gun trucks were painted olive drab to blend in with the other cargo-laden trucks.


Figure 9. Gun Truck with Gun Ports and Windshield Cover.
Early gun trucks also did not have any radios so they always had to follow a gun jeep with a radio. As an experiment, the convoy was divided into smaller serials with a gun jeep and gun truck leading each serial of 10 trucks. These gun trucks would place suppressive fire on the enemy to protect any trucks and drivers in the kill zone. Only gun trucks were equipped to survive in the kill zone, but they initially were instructed to place suppressive fire on the enemy from the flank until the security force arrived and could sweep the area. Only after the ambush had culminated would gun trucks enter the kill zone to provide flank security for disabled vehicles and evacuate wounded drivers.

By the end of September, Colonel Joe Bellino arrived to assume command of the 8th Group. He saw the merits of the earlier initiatives and would ultimately shepherd further development of the hardened convoy. Rather than simply leaving gun-truck development to the drivers' initiative and imagination, Bellino championed the cause himself. He encouraged
the experimentation of design-doctrine changes. He added more gun jeeps, M151s with M-60 machine guns, from his own truck companies to escort the convoys. He did not rely on MP gun jeeps for protection. When the ring mounts arrived, he added an additional .50 caliber machine gun over the cabs of the gun trucks. That increased the number of machine guns to three per gun truck. Bellino also divided the convoys into march units approximately five minutes apart. He placed one of the 8th Group's gun jeeps with radio in front, followed by a $21 / 2$-ton gun truck, with a Quad .50 somewhere in the middle and a $2 \frac{1}{2}$-ton gun truck in the rear, followed by another gun jeep with a radio. A wrecker or truck with a tow bar closed up the rear. ${ }^{22}$

Although truck units used ring-mount machine guns for protection during World War II and the Korean War, the 8th Group solution was unique. These gun trucks were dedicated fighting vehicles, with each company fielding two-to-three gun trucks. However, every truck the 8th Group converted reduced the number of drivers available to drive task vehicles. Because of its crew requirements, every Quad .50 in the convoy reduced the number of available drivers for task vehicles by six.

## The Test and Validation of the Gun Truck

The NVA launched its next large-scale ambush on an 8th Group convoy led by First Lieutenant James P. Purvis on 24 November 1967. The convoy rolled out with 435 -ton cargo trucks, $152^{1} / 2$-ton trucks, and a maintenance truck under the protection of six gun trucks and three gun jeeps. The westbound convoy was divided into six serials of about 10 task vehicles per serial, with one gun truck leading each serial. ${ }^{23}$

Sergeant Jerry W. Christopher rode "shotgun" in the lead $2 \frac{1}{2}$-ton gun truck that had slowed to 20 miles per hour down the road leading to Checkpoint 91 . At 1005 , he spotted 10 paper bags spaced across the road and recognized them as fertilizer mines. The enemy had gained enough confidence to attack a loaded convoy during the day. He shouted to his driver, Specialist 4 Bob L. Logston, "We're in the kill zone!" "What?" Logston shouted over the roar of the engine. "We're in an ambush!" Logston floored the gas pedal and grabbed his rifle. The two machine gunners in the box opened fire with their M-60s. A B-40 rocket slammed into the front end of the truck, blowing off the left tire and part of the wheel. The gun truck slid to a halt 25 yards short of the mines. Christopher yelled the signal for ambush into the radio, "Contact! Contact! Contact!" He tumbled out of the vehicle with Logston behind him and started firing his M-79 grenade launcher. Enemy fire shot through the windshield, the engine block, and into the armor plating on the
side of the cab..$^{24}$
Since the SOP for vehicles in the kill zone required absolutely no stopping, the next 5 -ton loaded with small-arms ammunition down-shifted, pulled out of line, and roared around the damaged gun truck unaware of the daisy chain of explosives ahead. The mines blew off the front end of the truck, and it swerved out of control off the right side of the road. The third driver also accelerated his truck and ran over the remaining mines, losing both front wheels. His truck slid 75 yards down the road, ending up in a ditch with his load of 155 mm high explosive projectiles ablaze. Specialist 4 Dick Dominquez revved his engine and raced for the gap in the road. Carrying a load of CS gas, he safely squeezed through the opening and headed on to Pleiku. His was the only truck to escape the kill zone. A B-40 rocket hit the next truck loaded with 155 mm projectiles, engulfing it in flames. It slid to a halt 50 yards from Christopher's gun truck, completely blocking Route 19 with damaged vehicles. ${ }^{25}$

Christopher began firing his grenade launcher at the suspected position of the B-40. The artillery ammunition load began to cook off. Each blast rocked the damaged gun truck near it. Christopher crawled to the front of the vehicle looking for his driver. Logston had been hit by machine-gun fire below the waist and was a bloody mess. He tried to crawl out of the firing line. Christopher called out, "Bob! Y'all right, Bob?" Christopher then pulled his driver into the elephant grass. Logston asked, "What're we gonna do now, Jerry?" He looked up and saw helicopters circling high above and asked, "Why don't they do something? Why don't they help us?" These were command-and-control birds with senior officers on board watching the fight. Christopher pulled Logston under the gun truck and bandaged his wounds. "Hang on-we'll make it OK." That was as much a wish as it was reassurance. ${ }^{26}$

Another rocket hit the tail gate above Christopher, sending a shower of fragments all over Specialist 4 Frank F. Czerwinsky, a machine gunner. The other machine gunner, Private James "Jim" Boyd, was wounded in the arm. Both M-60 machine guns were smashed. While Christopher attempted to save Czerwinsky's life, Boyd searched for a rifle and began firing away with his one good arm. Christopher then spotted an NVA sapper in the grass across the road. The sergeant discharged his M-79, not sure there was enough distance for the round to arm. The grenade round exploded on target. ${ }^{27}$

After the ambush began, a B-40 rocket flew by just inches behind the second gun truck - the 17th vehicle in the convoy. Machine gunners Roy Handers and Private First Class Robert "Bob" Sas immediately returned
fire. The next rocket hit the cab, wounding the driver and throwing him to the floor while the truck lumbered out of control off the roadside. When the truck hit the ditch, it flipped over and violently tossed the crew around inside the box, eventually stopping upside down in the grass. Sas was crushed to death under the cab. Handers found himself pinned under the truck by his leg. He could hear the driver, trapped in the cab, crying for help. Handers dug himself free with his hands only to discover that his leg was broken. An NVA machine gunner on the other side of the vehicle kept him from assisting the driver. Handers crawled around desperately looking for a weapon when he heard a "plop" beside him. A grenade went off and blew him 10 feet away. With fragments in his legs, he staggered to his feet but blacked out before he could make it to the truck. ${ }^{28}$

Meanwhile, the 5,000 -gallon fuel tankers in the first serial had burst into flames spilling their blazing contents down the road. Pallets of ammunition on the backs of the other trucks began to cook off. The 700- to 1,000 -meter kill zone had become an inferno. NVA sappers ran up to the vehicles, climbed atop, and placed demolition charges on the cargo, then fired down on the drivers hiding in the grass along the roadside. The drivers returned fire, knocking the enemy off the trucks and into the wreckage littering the road. ${ }^{29}$

Enemy fire also damaged the gun truck in the third serial, and a grenade damaged the gun truck in the fourth serial. Only the last two gun trucks remained unscathed. The drivers fought back with their gun trucks, fixing the enemy in place while tanks and APCs of the 4th Infantry Division (Mechanized) at the next checkpoint came rushing up and flanked the guerrillas. When the ambush ended, the Americans' casualties included 41 killed and four of their wounded captured; the enemy's losses included 14 trucks (among them four gun trucks), two dead, and 17 wounded. The cost of ambushing convoys had escalated for the enemy. ${ }^{30}$

Another eastbound convoy, under the control of the 54th Battalion, was ambushed by a company of Viet Cong guerrillas at 0815 on 4 December. This convoy of 585 -ton trucks and $112 \frac{1}{2}$-ton trucks was escorted by six gun trucks and four gun jeeps. The lead gun truck from the 669th Transportation Company stopped west of An Khe when the crew noticed a board with three mines lying across the road. Immediately thereafter, the gun truck came under small-arms fire; a direct hit from a recoilless rifle rocket in the windshield killed the driver, Specialist 4 Harold W. Cummings, Jr., and wounded the crew in the back, Sergeant Dennis Belcastro, Specialists 4 Frank W. Giroux and Joseph "Joe" Foster. Enemy small-arms fire also
stopped First Lieutenant Todd's jeep following behind the gun truck. Both vehicles immediately returned fire. Five minutes after the ambush started, the enemy attacked the center of the convoy. ${ }^{31}$

Small-arms fire caused flat tires in four cargo trucks, but the drivers still returned fire breaking off the assault. Three minutes later the enemy made another assault that the drivers also beat back. The remaining five gun trucks raced into the 3,000 -meter-long kill zone, multiplying the suppressive fire on the enemy. One of the gun trucks was disabled by a rocket, which wounded its three gunners. Helicopter gunships arrived at 0827, 12 minutes after the call, "Ambush! Ambush! Ambush!" went out and the security force arrived at $0830 .{ }^{32}$ By that time, the gun trucks had broken the ambush, killing 13 enemy soldiers and capturing one wounded, losing only one of their own killed and six wounded. As for vehicles, the convoy only lost one destroyed gun truck and one jeep, with four trucks slightly damaged. Clearly, the previous SOP changes and the gun trucks had reduced convoy losses while making the enemy pay a high price. ${ }^{33}$

Lieutenant General William B. Rosson, who had replaced Larsen as commander of I Field Force, Vietnam, said in review of the ambushes of 24 November and 16 December, "These 8th Group truckers are the unsung heroes of this war." General Creighton Abrams, then Deputy MACV Commander, had flown over the ambush and watched the gun trucks in action. He later commented to General Westmoreland, "Those guys look just like a bunch of frustrated tankers." Abrams, as a tank battalion commander during World War II, had spearheaded the 4th Armored Division into Bastogne. Colonel Bellino's response to this comment was, "I think it's safe to say they are working off these frustrations." The gun truck, though not authorized on the table of organization and equipment or by Army Regulations, became unofficially accepted by MACV. ${ }^{34}$

Bellino was a gregarious officer with a flare for promotion. The novelty of the gun trucks attracted much high-ranking attention, so Bellino established a VIP briefing that included a tour of the gun trucks. He held these briefings almost daily. One of the soldiers had a bullet shoot through his helmet, so at a given point in the brief, the soldier would walk in wearing a bandage on his head and carrying the bullet-scarred helmet. While Bellino may not have originated the idea of gun trucks, he had the intelligence to recognize its potential. Over the next year, he improved upon the concept and promoted it. For this reason, Bellino became known as the father of the gun truck. ${ }^{35}$

From September 1967 on, the enemy conducted large-scale convoy
ambushes nearly every week until March 1968. During that time the enemy had the confidence to hit westbound convoys, loaded with cargo and fuel, during the day, attempting to prevent supplies from getting through. The VC and NVA required detailed intelligence on convoy operations and would spend several weeks planning a deliberate ambush. Based on previous patterns of behavior, the Americans knew the enemy carefully selected ambush sites that would force the convoy to slow down, thus gaining the advantage. The guerrillas first would move to within a day's march of the ambush site, then secretly move at night to the site and prepare fortified positions. On the day of the ambush, the VC or NVA would wait for a more assailable convoy to arrive. They would then initiate with a quick, violent rush to throw the convoy defense off balance, inflict heavy casualties in a short amount of time, and then exfiltrate before the security force could arrive. Despite this, the gun trucks and convoy doctrine guaranteed the convoys got through. ${ }^{36}$

## Night Convoys

The enemy constantly looked for weaknesses. Because guerrillas operated best under the cover of darkness, and US night-vision devices were bulky and not plentiful, convoys preferred to run the main supply routes during the day. Security forces also closed the checkpoints along Route 19 at night. The 8th Group, however, did clear cargo at night from the port at Qui Nhon along Route 1 to the marshalling yard at Cha Rang, a distance of about 10 miles. Even in that short distance, the enemy launched ambushes at night, looking for vulnerabilities.

On 23 March 1968, a night shuttle convoy from the port of Qui Nhon proceeded north on Route 1 toward the loading sites in Cha Rang Valley. At approximately 0015 , the convoy of five task vehicles, one gun truck, and one gun jeep approached the bridge guarded by the Koreans. The convoy commander, First Lieutenant Paul J. Stegmayer, from the 2d Medium Truck Company, observed a pipeline fire near the village of Tuy Phoc. After reporting it, the convoy proceeded. As the convoy neared the fire, something exploded on the north side of the road near Stegmayer's jeep. Heavy small-arms and automatic-weapons fire quickly followed the explosion. Although Stegmayer and his driver received wounds from flying glass and shrapnel, the driver managed to make it across the bridge. Due to the intense enemy fire, only Stegmayer's jeep and one task vehicle cleared the kill zone. ${ }^{37}$

Stegmayer ran back over the bridge, under a hail of bullets, to organize the defense of his drivers. Moving from vehicle to vehicle, Stegmayer ensured
all the drivers had left their vehicles and taken up positions to engage the enemy. He then returned to his jeep to radio reports to battalion and adjust artillery illumination rounds. With the arrival of a reaction force of three gun trucks, one gun jeep, and a Quad .50, Stegmayer again crossed the bridge to direct flanking fire into the suspected enemy positions. ${ }^{38}$

An estimated enemy force of 15 broke contact and fled the area. All six vehicles in the convoy had received small-arms and automatic-weapons fire, but only four men were wounded. Intelligence reports later revealed the enemy had planned to destroy the railroad and highway bridges at the site of the pipeline fire, thus cutting a vital link on the only main highway between Qui Nhon and major tactical forces. With the arrival of the night convoy, the enemy may have fired on the column thinking the convoy was a reaction force investigating the pipeline fire. Stegmayer and his men contributed to the the enemy's failure. ${ }^{39}$

Although the 8th Group did not explore driving night convoys along Route 19, another battalion did. The 57th Transportation Battalion, which moved into the I Corps Tactical Zone beginning in 1968, became the only truck battalion to routinely run convoys at night. The ARVN units had priority on the roads during the day so the Americans had to run their convoys at night. While the night appeared to offer greater concealment for the guerrillas, the muzzle flash of their weapons betrayed their positions. This actually made it easier for the gun-truck crews to return accurate fire. Thus, this experience did not indicate that night convoys were any riskier. In fact, the truck battalions in I Corps Tactical Zone continued to run night convoys throughout the war. ${ }^{40}$

## Further Evolution of the Gun Truck

The Tet Offensive, which began on 31 January 1968, had run its course by March and the gun trucks assured that all convoys reached their destinations. From March 1968 to the spring of 1969, few ambushes occurred along Route 19. The enemy launched a few more ambushes in April during the second offensive and in August during the third offensive. Yet, it was still unsuccessful in shutting down the main supply route. Not until the spring of 1969 did enemy forces again begin ambushing convoys along Route 19 with any frequency, though it was still not as often as they had from September 1967 to March 1968. Even so, by 1969 the gun truck reached its greatest and most effective function in both design and doctrine. ${ }^{41}$

From 1967 through 1969, the enemy also varied his tactics with each ambush in an attempt to become unpredictable. Gun-truck crews learned to fire their . 50 caliber machine guns at anything suspiciously resembling a
hidden mine. The magnesium tracers would often detonate secondary explosions where they were not easily detected if they had fired a rocket at it. This tactic countered the enemy's attempt to block the escape of trucks with daisy chain mines just as they had during the ambush on 24 November $1967 .{ }^{42}$

In the early ambushes, the guerrillas also initiated fire on the lead vehicle. As the gun trucks responded more quickly, the enemy accepted destroying fewer vehicles and learned to initiate contact with shoulder-fired antitank rockets (RPG), mines, mortars, and even claymore mines by firing down from the trees into the gun-truck boxes. More often, the ambush was initiated against the middle or rear of the convoy. Since most convoy commanders preferred to ride in the lead vehicle, this created a dilemma. The ambush would occur behind them. Once out of the kill zone they had to fight the urge to return, which was essentially suicide if riding in an unarmored vehicle. 1LT David R. Wilson was killed by a mortar round when he returned to the kill zone in an unarmored jeep on 31 January 1968. His driver was also mortally wounded, and the gunner was only slightly wounded. Both Wilson and his driver received the Silver Star Medals posthumously for their actions. Afterwards, convoy commanders preferred to ride in the middle or rear of a convoy where they could better assess all situations.

8th Group knew it had the ingredients for the right solution with its successful SOP and its hardened convoy. Gun trucks and their doctrine evolved along with enemy changes, thus reducing the loss of convoy vehicles and drivers. The enemy, on the other hand, drew the same conclusion with each ambush - it had to destroy the gun truck first. This led to the belief that the guerrillas placed a bounty on the gun trucks. NVA forces did not vary their methods when it came to the general location of ambushes. Most ambushes took place where vehicles had to slow down around the An Khe and Mang Giang Passes. Since most ambushes occurred below Mang Giang Pass, the drivers coined it "Ambush Alley" (see Figures 10 and 11).

Guerrillas in other areas developed different methods for slowing convoys down. Lambrettas, three-wheeled motor vehicles with cabs used as overcrowded buses, normally traveled slower than the convoys. But sometimes when a convoy slowed or stopped, the enemy would drive by and shoot at drivers from scooters. At other times they would pull in front of the last vehicle in the convoy, separate it from the rest, then shoot at it or throw hand grenades in the cab. For this reason, drivers remained suspicious of any civilian vehicle. They had a general rule that if a vehicle gets in the way they should bump it until it moves out of the way, and that vehicles should not slow down or get separated from the convoy. This was not always easy.





Credited to the Bellino Report.

Maintaining convoy integrity was especially difficult when traveling up the passes. Their SOP directed convoys not to pass other vehicles or convoys. Even following a slow-moving ARVN convoy up a pass was an invitation for an ambush. The lead jeep or gun truck had to forcefully convince the civilian or ARVN vehicles to pull over and let the American convoys pass.

Other situations also disrupted convoy operations. If a mine disabled a vehicle, then the convoy commander had to determine whether to continue. In the case of a mechanical failure or damage to the vehicle, the driver would stay with the vehicle until a gun truck arrived. Any unattended vehicle was considered booby-trapped by the enemy and required clearance from the engineers before a convoy could pass. In an ambush, the driver was considered safer in the vehicle than out of it. Hence, gun-truck design evolved out of necessity.

No weapon system struck more fear in the hearts of the enemy than the Quad .50, but it also had its drawbacks. All four . 50 caliber machine guns of the M-55 could only fire in the same direction, could not depress very low below the horizon, and could not traverse 360 degrees because of the truck's cab. On top of that, the four machine guns required four men to feed them ammunition, plus a gunner. The six-man crew was not cost effective and officers often pulled the crew members off for other duties. Rarely did the M-55s have a full crew; therefore, the M-55s fell out of use as other types of gun trucks replaced them. ${ }^{43}$

Mechanics and crews eventually learned that double layers of steel plating on the bed of the truck filled with sandbags, old mattresses, wood, or even duffel bags with personal gear absorbed the penetrating effect of most munitions much better than single steel wall.


Figure 12. Double Steel Panels.

The steel panels alone did not provide adequate protection against RPG rockets, but the various fillers absorbed the spray of the molten metal. Wood provided the best absorbent. The weight, however, placed too much strain on the M35 $2 \frac{1}{2}$-ton trucks and caused more maintenance problems, so 8th Group drivers began to harden M54 5-ton cargo trucks. They were rated to carry five tons of cargo on unimproved roads but could haul seven tons on paved roads. The M54 had the power and speed needed for a gun truck. One advantage of the box design was that if a truck became inoperable, the mechanics could unbolt the bed from the frame and several wreckers could lift it onto the frame of another truck. A number of doublewall, 5 -ton gun trucks, like the Eve of Destruction, made their appearance in the summer of $1968{ }^{44}$


Figure 13. Eve of Destruction.
These 5-ton trucks, however, were task vehicles. Colonel Bellino took a calculated risk since he was under pressure to deliver more tonnage. He reasoned that without the gun trucks, the convoys would not get through when ambushed. The 8th Group also overloaded its trucks to make up the difference in tonnage lost by gun trucks. As the damage to gun trucks from ambushes exceeded the supply system's ability to provide more steel plates, the 8th Group needed to find a substitute system for armoring its vehicles. ${ }^{45}$

This steel shortage caused Bellino to experiment with another idea. 8th Group mechanics mounted a stripped-down APC hull on the back of a 5 -ton truck with an M2 . 50 caliber and two M-60 machine guns on the top. 8th Group first fielded several APC gun trucks in September 1968. Experimenting further, 8th Group mounted the hull on just the frame of an M54

5 -ton truck and another on the bed of a 5-ton. The one loaded on the bed worked best. Colonel Bellino thought this third iteration of gun truck would replace the other types. Unfortunately however, the APC gun truck proved to be very top heavy, hard to drive, and dangerous on turns. The crews of the 8th Group loaded their APC hulls with front forward. This placed most of the weight over the back wheels. The crews down at Cam Ranh Bay loaded their APC hulls in backwards. This distributed the weight more evenly over both the front and rear wheels. Even so, the excessive weight was hard on the vehicle since it required more maintenance to keep it road ready. Its armor offered less protection than double steel panels with filler material and it did not have the firepower of a box-type gun truck. By 1970, complaints had reached 8th Group headquarters, who decided to eventually discard the APC gun trucks. A few did survive in I Corps. The box-type gun truck remained the favorite among crews. ${ }^{46}$


Figure 14. The Big Kahuna. APC hull mounted in a 5 -ton truck.


Figure 15. Sir Charles, M113 APC Hull.

During 1968, the 8th Group also armored M37 3/4-ton trucks and mounted a machine gun on a pedestal in the back and called them gun "beeps."


Figure 16. 3/4-Ton Truck.
They could only carry thin armor, but offered better protection than an M151 1/4-ton jeep. The added weight did cause considerable wear and tear on the vehicles though. 8th Group also tried using 3/4-ton gun trucks for convoy security but they did not work well either. The gun "beeps" were relegated to administrative runs to Qui Nhon or to driving around at night in unsecured areas. ${ }^{47}$

Armament evolution began with hand-carried M-60 and ring-mounted .50 caliber machine guns. Gun truck noncommissioned officers in charge (NCOIC) learned that ring mounts could not effectively traverse 360 degrees, so that machine gun was moved to a pedestal in the box. It was also discovered that the peripheral vision of two men did not encompass 360 degrees. Therefore, the gun truck progressed to a crew of three men in the box. Soon crews mounted all machine guns on pedestals for control and accuracy. As had been learned by earlier truck drivers in the Korean War, the .30 caliber and later 7.62 mm (M-60) machine guns were not nearly as intimidating as the M-2 .50 caliber (see Figure 17). The .50 caliber machine gun could shoot through almost anything. By 1969, crews replaced their pedestal mounted M-60s with .50 caliber machine guns or even M134 7.62 mm Gatling machine guns, or mini-guns. The mini-gun was the most intimidating, but it tended to jam (see Figure 18). Gun
trucks ended up with three or four pivot-mounted machine guns. Some gun trucks in 1968, mostly APC style, acquired gun shields for their . 50 caliber machine guns. The crews learned that the gun shields obstructed their view, however, which was more important than protection, and they gradually disappeared.


Figure 17. Three Men in a Box with a .50 caliber.


Figure 18. The Untouchable, M134 Gatling Machine Gun.

Gun trucks also carried a variety of "ditch guns" in the event the enemy approached so close that the gunners could not depress the pivot-mounted machine guns enough to engage it. The loose weapons ranged from shotguns and M-79 grenade launchers to extra M-60 machine guns stored on the filler material in the space between the double walls. Since many ambushes occurred in the mountain passes, the crew had every weapon available to respond in case the enemy advanced below the depression of the main guns. The M-79 was one of the drivers' favorite weapons. It provided hand-held artillery. In January 1968, General Westmoreland directed that all line companies of the 8th Group receive high priority in the exchange of their M14s for the newer M16 rifle. A shorter weapon had a tremendous advantage over a longer one in the cab of a truck. The drivers acquired the extra weapons by various means, some official and some unofficial. The most common method was to assemble enough worn-out parts from the depots to complete a weapon, then direct exchange it for a new one. In war, strict adherence to regulations sometimes impeded mission success. ${ }^{48}$

As a matter of fact, no authorization for gun trucks existed in the table of organization and equipment. Yet nearly every general officer in Vietnam heard about them and visited the 8th Group to see them. Colonel Bellino and his staff conducted almost daily briefings about them. Nonetheless, when the companies underwent their annual command maintenance inspection, they had to hide their gun trucks and extra weapons. In spite of the regulations, 8th Group had found the right path.

Coincidentally, during the Korean War the ratio of ring-mounted machine guns was one per three trucks. This closely matched Vietnam's machine gun-to-truck ratio of three to four machine guns per 10 trucks. The added armor and firepower gave gun-truck crews the confidence to enter the kill zone. In Korea, trucks with machine guns drove out of the kill zone; the Vietnam-era gun truck raced into it. Their objective changed to placing suppressive fire upon the enemy and rescuing the drivers either wounded or trapped in the kill zone.

Another important factor adding to the gun truck's firepower was the amount of ammunition carried. The basic load for a combat-service support unit was considerably lower than that of the combat arms. However, the machine gunners were amazed at how much ammunition they could fire in just a few minutes. The crews quickly increased the amount of ammunition they carried in the gun trucks, covering the entire floor with ammunition cans (see Figure 19). Essentially, a gun truck took as much ammunition as
it could physically carry.


Figure 19. Ammunition-Laden Gun-Truck Floor.
Within a year after their origin, the gun trucks had gained a reputation and their crews began to name them. This was nothing new. Soldiers had been painting names on the jeeps and decorating plywood wheel covers for the spare wheels well before September 1967. In 1966, Captain Horvath had named his gun jeep the Patmobile after his wife and the TV series Batman.


Credited to John Horvath.
Figure 20. Patmobile, Armored Gun Jeep.
While still in temporary command of the 8th Group in September 1967,

Lieutenant Colonel Burke noticed a number of gun trucks with names stenciled on the side of them. Sergeant Philip C. Brown, from the 666th, simply named his truck Gun Truck, and another one from Burke's 124th Battalion was named Burke's Law, which was a TV show at that time. Burke decided to let the crews continue to stencil names on their trucks. As it turned out, Specialist 4 Larry Hicks, from the 563d Medium Truck Company at Pleiku, named his gun truck after his platoon sergeant who was also named Burke. Naming gun trucks improved morale and the trucks soon took on an identity all their own. From then on, when the veterans described an ambush, they would refer to the gun trucks as if they were living things. Allowing soldiers to name their gun trucks led to the one other thing that significantly contributed to the elitism of the gun-truck crews, their paint jobs. ${ }^{49}$

In time, every gun truck had a name and a paint job. Some of the early crews claimed that gun trucks painted the same color of the task vehicles fooled the enemy as to which ones were gun trucks. Colonel Garland Ludy, who commanded the 8th Group from September 1968 to September 1969, only permitted trucks to be painted olive drab so that they could blend in with the jungle. He made his drivers and crews take all personal markings off, but let them keep the names of the trucks stenciled on the gun boxes. By the summer of 1969, a few crews painted artistic names in spite of his policy, and as soon as Ludy gave up command of the 8th Group, the paint brushes came out. Crews replaced the stenciled names with more elaborate and decorative ones; they felt a special pride in their gun trucks and wanted them to stand out. Many crew members started adding varnish or black paint to darken the olive drab and painted the trim on the trucks with bright colors like red, white, or orange. The gun trucks kept getting darker and darker until the crews eventually painted them black. By the end of 1969, most gun trucks were painted black, while the armor was artistically decorated with names reminiscent of the nose art on bombers during World War II. Since the enemy was always on the lookout for weak targets, these newly painted vehicles made it clear gun trucks were part of the convoy. Whether or not this worked as a deterrent, the new paint scheme added to the élan among the crews. ${ }^{50}$

The last artwork detail was added to the trucks in late 1969. Battalion and group commanders either rode along in the convoys or flew overhead in helicopters to observe convoy discipline and monitor radio traffic. But the vast amount of traffic, both civilian and military, made it difficult for commanders to recognize their trucks on the road. At first, 8th Group had the lead and trail vehicles mount panel markers on their vehicles. Ludy's
replacement, Colonel Alexander Langston, ordered a yellow stripe be painted on the hood or nose of each 8th Group truck so that his boss, the Qui Nhon Support Commander, could tell the difference in the convoys from the air. The Quartermaster units painted the noses of their trucks white. ${ }^{51}$

In 1969, gun trucks also received new bullet-proof windshields since the others were impractical. Instead of ports, the new windshields had precut rectangles with slots for two 2 -inch thick bullet-proof sheets of glass. These began to see widespread use on gun trucks. If damaged, the old glass could be slid out and be easily replaced with a new sheet.


Figure 21. The Creeper's Bullet-Proof Windshields.
Since the convoys depended on gun trucks for survival, crew selection was another important factor. Gun-truck crews consisted of a driver in the cab, an NCOIC, and two machine gunners in the box. When the first gun trucks were built, the companies assigned men to the crews. They were volunteers and only the best drivers were selected. Drivers could not use drugs or abuse alcohol, and each man had to show a high level of responsibility. If the NCOIC had to prompt a crew member to perform his duties then he was immediately replaced, an easy task since many other drivers wanted to serve on gun trucks. Lieutenant Colonel Burke, upon returning to command the 124th Battalion at Pleiku, even received applications from infantrymen from the local 4th Infantry Division wanting to transfer and serve on gun trucks. They did not like sitting around guarding checkpoints-and
the gun trucks were where the action was. ${ }^{52}$
Probably the most dangerous gun-truck mission was escorting fuel convoys, with each tractor hauling 5,000 gallons of high explosive jet fuel. Enemy forces preferred to hit fuel tankers because the resulting fire usually blocked the road and trapped the other trucks. The 359th Medium Petroleum Truck Company contained the gun trucks Misfits, Brutus, Outlaws, Woom Doom, and Ball of Confusion. In 1970, Brutus' crew consisted of William "Bill" Kagel, Ernest "Ernie" Quintana, and Sergeant Jimmy Ray Callison. Ronald "Ron" Mallory, Richard Bond, and Chuck Hauser became friends with the crew of Brutus.


Figure 22. Brutus, Three . 50 Calibers in a Big Iron Box.
Every time Brutus returned from a truck run, Mallory and his friends would help take the weapons off and clean them. They were curious and wanted to know everything about the gun truck. One day the crew told Mallory and his friends, "If anything ever happens to us, we'd like you all to take over the gun truck." Just like that, the crew of the Brutus had fortuitously chosen their replacements. ${ }^{53}$

On the morning of 21 November 1970, a jeep with radio led the 27 th Battalion convoy of 29 vehicles headed toward Pleiku. Brutus followed 16th in the line of march and the maintenance gun truck, Ball of Confusion, followed in the rear. Behind it was a gun jeep with the convoy commander, an NCO from the 359th Medium Truck Company. A newly assigned lieutenant rode along in the jeep as an observer to gain experience.

Having just passed an eastbound 27th Battalion convoy, the convoy with Brutus began climbing up toward Mang Giang Pass. The south side of the road sloped upward and the north side sloped downward. Tall grass and scattered thickets bordered both sides of the road with the tree line around 250 meters from the road.

At 1105, the middle of the convoy came under rocket, automatic, and small-arms fire from the south side of the road. The 800 -meter kill zone caught Brutus and six fuel tankers. The crew of Brutus called "Contact! Contact! Contact!" over the radio and immediately returned fire with a . 50 caliber and mini-gun. B-40 rockets ignited two of the tankers and another jackknifed, partially blocking the road. Small-arms fire punctured the tanks and flattened the tires on the three other tankers, but they drove out of the kill zone and picked up the drivers of the burning tankers, all while leaking a trail of fuel on the road. They joined the lead vehicles at the top of the pass and halted. The vehicles following Brutus also halted, turned around, and drove back down the road. Ball of Confusion and the convoy commander's jeep were two miles back down the road assisting a disabled vehicle. For the first few minutes of the ambush, Brutus bore the brunt of the fight. ${ }^{54}$

Upon hearing "Contact!" the convoy commander and three gun trucks of the 597th Medium Truck Company in the eastbound convoy, Sir Charles, King Cobra, and Poison Ivy, turned around and raced to the kill zone. Ball of Confusion had preceded them. Because the jackknifed tanker blocked the road, the gun trucks bunched up on the east end of the kill zone and placed suppressive fire with all their weapons into the enemy position. A rocket hit the gun box on Brutus, wounding Kagel and Quintana and killing Callison. Ball of Confusion had one man wounded in the fighting. ${ }^{55}$

This ambush was timed with an enemy attack on Landing Zone Attack, just three miles down the road. Within 15 minutes of the first call, six APCs and one tank of the 1st Battalion, 10th ARVN Cavalry arrived in the kill zone. Most of the ARVN Cavalry Squadron, which was responsible for this area, had been pulled up to Pleiku several days before for operations in that area. After another five minutes of fighting, the enemy withdrew and only sporadic firing continued for another 15 minutes when two gunships arrived. ${ }^{56}$

Ron Mallory, Chuck Hauser, Larry Dahl, and Sergeant Richard Bond replaced the crew of Brutus. Because Mallory was one of the best drivers at split shifting, he naturally became the driver. Sergeant Bond assumed
the responsibility as the NCOIC with Hauser and Dahl as the gunners. As the new crew set about cleaning and repairing the gun truck, the loss of their friends saddened them. To give the truck a new look, they completely repainted Brutus, thinking this would make the old crew proud. It took about a week to put Brutus back on the road, but it took almost a month for the smell of blood to disappear. ${ }^{57}$

Earlier, Specialist 5 Erik Freeman had re-enlisted and volunteered for a second tour in Vietnam just so he could become a gun truck NCOIC. He asked to be assigned to the 8th Group at Qui Nhon, so that he could drive the most heavily ambushed road in Vietnam. He was also assigned to the 359th Medium Petroleum Truck Company. Freeman impressed First Sergeant Willard Self, who challenged him by saying he would give Freeman a gun truck if he could win best truck of the month. Freeman did, and Self rewarded him with an opening on the maintenance gun truck Ball of Confusion. After a crew member had been wounded in the 21 November 1971 ambush, the driver wanted off and the rest of the crew was due to rotate home soon. Ball of Confusion was also one of the old $2^{1 / 2}$-ton gun trucks on its last leg and finally broke down within a month, so Freeman found a brand new 5 -ton supply truck at battalion and had it assigned to his company. He remounted the box on the new truck and rebuilt it with two 7.62 mm mini-guns and two .50 s . He renamed it The Untouchable after the TV series, but he wanted the name to reflect the vehicle not the crew, so he made it singular. ${ }^{58}$

Freeman began to pick his new crew. He looked for good drivers, those who always drove, never had any trouble shifting gears up the passes, never had breakdowns, and did not get drunk. He expected his crew to always be alert on the road, looking for any signs of trouble, and to respond quickly to breakdowns or alarm signals within the perimeter. Because gun trucks also provided perimeter security in camp if attacked, the crews had to react to alerts without hesitation. Freeman liked a spotless truck and every day after returning from the dusty road, he and his crew cleaned their truck and weapons. Because the mini-guns required the most detailed maintenance to function, Freeman took care of them himself. He had assembled both mini-guns from worn out and spare parts. In fact, while on the road, the other two gunners operated the front and rear . 50 caliber machine guns while Freeman switched between the two side mini-guns. At the end of his one-year tour, he extended for another six months and remained the NCOIC of The Untouchable until his company refused to extend his tour a second time. They felt he was pushing his luck. It broke his heart to leave his gun truck. ${ }^{59}$

A significant criterion for selecting gun-truck crew members was that they could not use drugs or abuse alcohol. When Walter Deeks arrived in the 545th Light Truck Company in 1970, he received a truck with Mary Jane painted on the armor plate over the door. When the naïve Deeks asked the man assigned to train him what the name stood for, the man jokingly explained it was the name of the previous driver's girlfriend. So out of respect, Deeks did not change it. He also wore hippie beads, but only because many of his friends did. Soon, Deeks began to notice that the "lifers" (or career soldiers) paid very close attention to him. When he asked why, someone finally informed him that Mary Jane was slang for marijuana. Deeks realized that he had been mistakenly identified with the dope smokers so he quickly painted over the name. He did keep the beads though. As soon as others realized that Deeks was a good soldier, they asked him to replace a driver on the gun truck, Paladin. Most gun-truck replacements started out as drivers and then moved up to machine gunners after proving their skill and courage. The intense selection process combined with the pride inspired by the gun-truck artwork created an élan that caused these crew members to take great risks to protect other drivers. ${ }^{60}$

Courage alone was not enough to defeat the enemy. Crew training consisted of familiarization with an array of weapons used on the trucks. Every morning the trucks test-fired their machine guns. They had to be able to treat wounded and call for MEDEVAC and fire support. Everything else they learned from on-the-job training.

Since the gun truck was a dedicated firing platform, it could respond to the security needs of the convoy. Intelligence about the enemy was always weak and intelligence briefings did not influence convoy operations, since the convoys would run regardless of enemy threat. Most drivers claimed the enemy intelligence was always late and ineffectual anyway. When intelligence indicated a high probability that the enemy planned an ambush, the 8th Group would sometimes organize "death convoys," a convoy consisting of only gun trucks. Its sole purpose was to intimidate the guerrillas and convince them they could never shut down traffic on the road.

Communication was also critical to convoy-security success. When gun trucks did not have any radios in the beginning of the war, they had to follow behind the convoy or serial commander's jeep. Bellino recommended that all gun trucks have radios. Once the gun trucks received their own dedicated radios, they could become more responsive to the convoy. Gun trucks favored the vehicle-mounted AN/VRC-46 or 47, but often had to settle with a backpack PRC-77 used by the infantry. They just needed
to have enough range to reach the nearest security force or air support. Convoy commanders preferred the single side-band AN/GRC-106, if they could get them, because of its long-range communication capability to talk with battalion headquarters from anywhere along the highway. Gun trucks could then monitor radio traffic and, if they identified a problem, could then respond to it. Communication freed the gun trucks to work independently of the convoy commander. Gun trucks acted as control vehicles and moved about the convoy, keeping the other trucks from bunching up or falling too far behind. The last gun truck provided security for any truck that broke down and would then radio for the middle gun truck to fall back to the rear. Its purpose was like that of a sheep dog while the convoy commander served as the shepherd-the convoy commander led while the gun trucks supervised convoy discipline. ${ }^{61}$

Like tanks, gun trucks eventually established an internal-communications system so all crew members could communicate among themselves. They used different types of headsets, from commercially produced stereo headphones to tanker helmets. Communication between the NCOIC and the driver was critical in an ambush and in the event that the NCOIC was wounded or killed, any other crew member could take charge. Initially, the gun trucks just escorted the other task vehicles out of the kill zone or rescued drivers of damaged vehicles, but the crews quickly learned the best way to counter the enemy was to mass gun trucks in the kill zone. Upon hearing "Contact! Contact! Contact!" all gun trucks within hearing radius of the ambush raced to the kill zone. In the ambush on 21 November 1970, as many as five gun trucks, six APCs, and a tank rushed into the kill zone. That amounted to as many as 22 machine guns against a companysize enemy force of approximately 50 NVA. Most gun trucks had as many machine guns as a mechanized infantry platoon.

An ambush is a quick and violent event that relies on the element of surprise for success. Staff Sergeant James Rose, a former convoy commander in the 8th Group, articulated how best to react to an ambush when he said,

If you are unlucky enough to be caught in an ambush, clear the kill zone as quickly as possible and, if not possible, the first few seconds are the most important. You have to put all the firepower you have on the enemy in the shortest amount of time. No hesitation. Turn it around on him. Once you have the situation stabilized, then you can force him to make decisions.

Ambush procedures in Vietnam evolved with the gun trucks. As the gun trucks progressed and the crews became more confident, most thought it their duty to enter the kill zone immediately, provide security for the disabled vehicles, and rescue wounded drivers. Gun-truck crews exhibited some of the greatest acts of bravery every time they drove into a kill zone. ${ }^{62}$

Mines were another constant problem. Each morning the MPs and engineers would drive the route before any convoy's departure, looking for mines. They even designed unique devices to roll across mines buried along the roadside and detonate them. The drivers in the convoy watched for changes in familiar scenes, evidence of road repairs, new fill or paving, road patches, mud smears, grass, dirt, dung or other material piled up to conceal mines. On dirt roads, drivers followed in the tracks of the vehicles ahead of them and avoided old tracks as the enemy liked to plant mines there.

Convoy security was considered an MP function, but the MPs were not organized or adequately equipped to respond to the convoy's increased enemy threat. The MPs did not feel it was their mission to engage the enemy, since they did not have the proper assets. According to their SOP, their primary task was to keep the convoy moving and to clear the kill zone. Only when feasible, without endangering the patrol, would they extract wounded or stranded personnel from the kill zone. In his 1968 report, Colonel Bellino considered the gun truck to be merely a temporary substitute until the MPs received enough Cadillac Gage V-100s-a fourwheeled, armored car first produced in 1964. The V-100, or XM-706, had two M-73 7.62 mm machine guns that could only fire in one direction. Sometimes MPs added another M-60, though it clearly still did not contain the firepower of the gun truck.

Major General Joseph M. Heiser, Jr., Commander of the 1st Logistics Command in Vietnam, considered the V-100 "a more effective control and escort vehicle than either the gun jeep or the 'hardened' $2 \frac{1}{2}$-ton and 5-ton trucks." The armored cars' all-around protections impressed him the most. In August 1969, Heiser forwarded his recommendation to the Assistant Chief of Staff for Force Development in Washington, DC, that the table of organization and equipment for both light and medium truck companies include four V-100 armored cars. However, the Army 75 report in circulation at that time recommended the MPs assume responsibility for convoy security. The commanders of US Army, Vietnam, and US Army, Pacific, concurred with the Army 75 recommendation. The Office of the

Assistant Chief of Staff for Force Development agreed with the latter on 26 November 1969, so the MPs continued to receive the armored cars and escort convoys. ${ }^{63}$

After Bellino left, the truck drivers learned that the gun platform needed three to four machine guns to adequately fire in every direction. The V-100's armor did not have the same firepower as the gun truck, and it could only stop small-arms fire, not rockets or an enemy .51 caliber. A .51-caliber round could penetrate and ricochet around inside the vehicle. An enclosed vehicle did not allow the passengers to observe the indicators of an ambush. Besides the shortage of V-100s, an even greater shortage existed of repair parts to keep them on the road. An Army concept team tasked by US Army, Vietnam, conducted an evaluation of convoy-security operations from December 1970 to March 1971 and agreed with the truck drivers' evaluation of the V-100. ${ }^{64}$

Truck drivers also complained that the MPs did not drive close enough to the convoys to provide any protection. The MP escorts either raced too far ahead or lagged too far behind. As mentioned, MPs did not always rush into the kill zone to protect or rescue the truck driver. Gun-truck crews, however, eventually gained enough confidence to charge into the kill zone. Since gun-truck crews had started out as drivers of task vehicles, they more closely identified with the men they were responsible to protect. Truck drivers proved the best and bravest defenders of other truck drivers, which was the advantage of giving the mission of convoy security to transportation units. Staff Sergeant Rose did not look at the V-100 as a force-protection asset but as a capability of the MP escort. He saw MPs as another source of communication. They could coordinate with traffic MPs or host-nation police in the event of an incident with civilians. ${ }^{65}$

By the time the last American truck unit left Vietnam in 1972, gun trucks still dominated convoy security. Time proved the open box-type gun truck to be the best design. The three crew members in the back could observe in 360 degrees so they could spot indicators of an ambush ahead. Almost always some change in behavior of the locals indicated trouble ahead. In uninhabited areas like the Hairpin and Ambush Alley below Mang Giang Pass, crews always remained vigilant.

By 1970, convoys were divided into three parts. The 8th Group required a minimum of three control vehicles with radios to accompany each convoy. A gun truck could serve as a control vehicle if it had a radio. The advance party normally drove ahead of the main body by 300 to 500 meters. It consisted of a gun jeep, gun truck, V-100 or any combination. It
had the mission to detect mines, obstacles, and barriers and provide early warning of any ambush signs before the arrival of the main body. ${ }^{66}$

The 8th Group further refined its SOP in regards to the convoy's main body, which consisted of task vehicles divided into serials of no more than 28 but, on average, 18 vehicles. They were arranged by type of vehicle and load. Because of speed, $2 \frac{1}{2}$-ton and 5 -ton trucks ran together while the tractors and trailers, refrigeration vans, and petroleum oil and lubricants (POL) tankers ran together. Non-explosive cargo was placed up front, with explosive cargo and slower loads in the rear. The enemy naturally preferred to hit explosive cargo first. When that happened, the greater portion of the convoy could still drive through. When divided into serials, each serial had to have two control vehicles with radios. Because the ambush of 24 November 1967 destroyed so many gun trucks, the gun trucks varied their positions throughout the convoys. 8th Group also increased the number of gun trucks to one per 10 trucks. Bellino had recommended that each truck company, which consisted of 60 trucks, have seven gun jeeps and five gun trucks, but most units built six gun trucks. ${ }^{67}$

The trail party followed behind the convoy's main body and ensured all broken-down vehicles were repaired expeditiously or that the vehicle and cargo were recovered. It also had a control vehicle with a radio to inform the convoy commander of any breakdowns. Because gun trucks usually provided security for disabled vehicles while the maintenance vehicle tried to get them working again, the companies combined the two capabilities into one-the maintenance gun truck. These maintenance gun trucks carried extra tires, batteries, and parts to quickly repair any simple breakdown. If the truck could not be made operational, then alternate prime movers without trailers called "bobtails" would tow the disabled tractor and its trailer. The ideal ratio was one bobtail per five task vehicles. For a convoy serial of nearly 30 vehicles, two gun trucks would ride somewhere in the front and middle and a maintenance gun truck would bring up the rear along with the trail party and six bobtails. That did not always happen, though. Convoy commanders initially rode in the lead but later chose to follow in the rear where they could see all vehicle difficulties and respond to problems. ${ }^{68}$

Because of the striking similarity, 8th Group SOP writers could have taken the 1914 doctrine and simply replaced it with modern technology. The 1914 doctrine called for the combat-arms element to travel front, center, or rear of the main body, the same places 8th Group determined were the best to place their gun trucks. 8th Group's advance guard performed
the same function as before and truck drivers found that the MPs worked best in their 1914 role rather than in the combat-arms role. Even the size of the march serials was similar. Trucks, however, required a maintenance section in the trail party, a feature not addressed in the 1914 doctrine but learned a few years later. After several years of trial and error, 8th Group rediscovered the same convoy organization that worked a half century before, thus validating that the convoy organization was sound and had again passed the test of time.

In Vietnam, each battalion designated the convoy commander from its unit, and the convoy commander designated the commanders of the subordinate elements, serials, advance, and trail parties. As it was understood, lieutenants served as convoy commanders, but this policy varied with the different transportation commands throughout Vietnam. The US Army, in desperate need for captains, had decreased the time by which a second lieutenant made captain to just two years instead of four. In addition, officers felt the basic course did not adequately prepare them for the duties of commanding convoys in Vietnam. This was a problem throughout Vietnam, not just with the 8th Group. The 48th Group at Long Binh always appointed the senior officer riding in the convoy the commander; this included the battalion commander if he rode along. ${ }^{69}$

Lieutenant Colonel Edward Honor, Commander of the 24th and 36th Transportation Battalions at Cam Ranh Bay from July 1969 to July 1970, insisted that captains serve as convoy commanders because of the inexperience of lieutenants. He felt that lieutenants with less than two years of active duty were not experienced enough to make the critical decisions required of convoy commanders. In the 8th Group, company commanders initially only rode along to observe, not supervise the convoys. The 8th Group later changed its policy, requiring the most experienced person in terms of convoy operations, regardless of rank, to serve as the convoy commander. This meant that NCOs began to serve as convoy commanders even if lieutenants rode along to gain experience. As the war drew to a close and units began to withdraw in 1970, lieutenants became scarce because of rapid promotion and reassignment. As the war progressed, some companies did not have any platoon leaders. This required NCOs to play an even greater role as convoy commanders making critical decisions for the convoy elements. ${ }^{70}$

## Hasty Ambush

On 16 December 1970, in a westbound convoy, Satan's Chariot passed an incapacitated tractor and trailer and two gun trucks from an earlier
convoy at An Khe Pass. The convoy arrived at the 54th Transportation Battalion base camp just an hour before dark. Sergeant Charles Sims, the NCOIC of Satan's Chariot, had his men take off the weapons and start cleaning them when the commander of the 88th Light Truck arrived and directed that his gun-truck escort a spare tractor back up to retrieve the disabled vehicle. Sims challenged the decision. At that hour they would reach the pass after dark. Nothing traveled on the roads at night. He felt the gun truck should just pick up the driver, abandon the truck, and return. The battalion commander gave Sims a direct order to recover the vehicle, since he knew that if the tractor was left unattended over night, the explosive ordinance demolitions men would have to clear the vehicle the next day before a convoy could pass. This would delay the departure of the convoys by an hour. Sims departed with a spare tractor and wrecker to transfer the trailer. ${ }^{71}$

When they arrived, Sims observed that the MP V-100 armored car responsible for closing down the road each night was providing security for the broken-down tractor. Sir Charles also arrived. Once they recovered the tractor and trailer, Satan's Chariot led the way followed by the wrecker towing the tractor and trailer, Sir Charles, then the armored car. Upon reaching the base of the mountain they found that the Koreans had strung a concertina barricade across the road closing Bridge Number 8 . Sims radioed their situation to the road controller. The controller, in turn, called the American liaison officer with the Koreans to have them open the bridges. After waiting 20 minutes, the Koreans received instructions to open the bridge. ${ }^{72}$

Sims had driven the road so many times he thought he could have done it blindfolded, but the view was different in the dark. He did not remember the small village located on the north side of the road near the next bridge. Finally, Sims found the bridge but also found it to be closed. They waited for another 10 minutes for the Koreans to open the barricades. This delay made them a target for a hasty ambush. As they slowly negotiated around the barricades and all but the last gun truck and armored car had crossed the bridge, an explosion hit Sir Charles. Small-arms fire came at the convoy from the village on the north side of the road. Somebody screamed over the radio, "Contact!" while the gun trucks, the armored car, and the Koreans immediately returned fire.

Meanwhile, the maintenance gun truck, The Untouchable, had towed a vehicle to Cha Rang Valley. Specialist 5 Freeman, the NCOIC, had become concerned that two trucks on An Khe Pass would have to remain there over
night. He had a policy that he would never leave any of the vehicles or drivers behind if at all possible. On his way back to camp, Freeman passed Satan's Chariot and the wrecker heading back up to the pass. ${ }^{73}$

After dropping off the tractor, Freeman's crew changed a flat and refueled while he monitored the radio. He could hear they were having trouble hooking up the disabled tractor and worried that the Koreans would close the bridges on them when it became dark. Fearing that his commanding officer would not let him back out on the road at night, Freeman and his crew loaded up The Untouchable and left without permission. According to policy, MPs at the gate were not allowed to stop a gun truck. Fortunately The Untouchable found all the bridges open except Bridge Number 7, though the Koreans would not let it cross the bridge. When Freeman saw the recovery convoy approaching, he convinced the Koreans to let him drive off the west end of the bridge to turn around. He backed up and turned around, then pulled up alongside the bridge so his truck could fall in with the convoy when it passed. Just as the wrecker crossed the bridge, The Untouchable pulled into the convoy. Small-arms fire broke out from the village lasting about a minute. The rocket blast had mortally wounded the NCOIC of Sir Charles in the head. ${ }^{74}$

When the ambush began, the Koreans quickly closed all the bridge barricades. Freeman had just told his driver to back up when he heard the ambush, but The Untouchable was trapped on the bridge with Sir Charles and the armored car behind the bridge. Satan's Chariot could not re-enter the bridge, so Sims led the wrecker back to Cha Rang. The rest of the bridges were open, however, and he received a flare ship to escort his convoy back. At the same time, one of the gunners on The Untouchable pointed his . 50 -caliber machine gun at the Koreans, forcing them to open the bridge's west end. The Untouchable then turned around and pulled up next to Sir Charles. Freeman then raked the tree line with the mini gun for about 10 to 15 seconds and the other vehicles got under way and crossed the bridge. A MEDEVAC picked up the NCOIC, but he was already dead. An attack helicopter and flare ship escorted Freeman's convoy back. This event verified that any prolonged halt made vehicles a target of opportunity, since local VC lived in the area. ${ }^{75}$

## Medal of Honor

Gun-truck crews felt such a commitment to their fellow crew members that many would not take their rest and recreation leave and would drive right up to the last day. Their sense of dedication obliged them to fill in for other crew members regardless of the company. Gun-truck drivers
felt such a special bond with their trucks and with each other that each would willingly sacrifice his life for his comrades.

On 23 February 1971, Sergeant Richard Bond had the day off so Sergeant Hector Diaz filled in as the NCOIC of the gun truck Brutus. Although Chuck Hauser was not the NCOIC, he operated the radio since he knew the truck. Another driver of the gun truck Playboys went on sick call so the NCOIC, Sergeant Grailin Weeks, asked Walter Deeks to fill in for him. Playboys was in the 545th Light Truck Company at Qui Nhon. It was a spare truck that day so it escorted jet fuel in 5,000-gallon tankers of the 359th Transportation Company. Deeks did not like escorting tankers because they tended to explode when hit by rockets, but he could not turn down a request from a friend. Gun-truck crews were considered the elite truck drivers and did not turn down missions. ${ }^{76}$

Deeks' convoy, under the control of the 27th Battalion returning from Pleiku, ran into an ambush at the top of An Khe Pass. An NVA company of about 50 soldiers initiated the ambush by disabling the gun truck The Creeper with a rocket, blowing out the tires. Sergeant McCatchin, NCOIC of the The Creeper, called for help. Playboys immediately responded to the call and raced into the kill zone. One NVA soldier stood up in the ditch near the hill and fired his B-40 rocket at the cab of Playboys. Deeks stopped the gun truck so the rocket passed overhead while the crew killed the enemy soldier with the .50 -caliber machine gun. Playboys then proceeded around the bend into the kill zone. One 5,000-gallon fuel tanker had been hit and was leaking fuel on the road and another had jackknifed and was abandoned. Although immobilized, The Creeper's crew still placed suppressive fire on the enemy. ${ }^{77}$

The convoy commander, a lieutenant, was riding in Playboys. He directed the gun truck to pull up next to the incapacitated fuel truck about 30 yards from The Creeper. Playboys placed suppressive fire on the enemy and Deeks saw about 15 enemy soldiers either running away from the fire or moving for better cover. The fighting continued for nearly 20 minutes, an eternity to those involved. The convoy commander called for air support and a tank from the nearest checkpoint to help. Whenever a lull occurred in the fighting, more enemy soldiers would move to better positions and the fighting would intensify. ${ }^{78}$

Three gun trucks from the 359th Transportation Company, Misfits, Brutus, and The Untouchable, joined from the following convoy serial to help. Brutus had stopped near the embankment where the NVA soldier had fired the B-40 rocket at Playboys. The ambush then had five gun trucks
and a tank firing on the enemy. During the fighting, the Brutus' mini-gun jammed and Hector Diaz and Chuck Hauser quickly went to work to fix it. An NVA soldier stood up and lobbed a grenade into Brutus. Without hesitation, Larry Dahl jumped on the grenade to save the lives of his crew members. The other gun-truck crews saw Brutus' box erupt and knew their comrades were seriously hurt. Ron Mallory was close enough to hear the explosion and get splattered with blood. ${ }^{79}$

Many gun-truck members have expressed that any crew member would have made the same sacrifice Larry Dahl did. Dahl just saw the grenade first. Wounded but conscious, Hauser called Ron Mallory over the internal radio and told him to get out of there. Mallory maneuvered his gun truck out of the kill zone and raced to the next friendly checkpoint where a MEDEVAC waited for the wounded crew members. ${ }^{80}$

Meanwhile, the enemy fire died down again so the lieutenant told Deeks to go and find the driver of the disabled fuel truck. He wanted to rescue the driver and get out of the kill zone. For some reason, Deeks ran around to the far-side door. As he rounded the front of the truck, he saw a young, scared NVA soldier staring up at him from under the wheel well. The kid did not look older than 14. Deeks had not taken his M16 with him, so he spun around and ran back the way he came, shouting to the gunners, "There's one under that truck, there's one under that truck." The gunner yelled, "There he goes!" and then shot and killed the enemy soldier. ${ }^{81}$

Someone yelled that they could see the driver behind the truck. Evidently, the initial rocket blast had peppered the driver with shrapnel and blown him out of the truck. Deeks, who was tall and had played basketball in high school, ran over and picked the wounded, unconscious driver up in his arms. Deeks then carried him over to his gun truck and patched the worst wounds while the crew called for a MEDEVAC. After the helicopter landed, Deeks carried the wounded driver to it, all the while feeling very vulnerable to enemy fire. Covered in the driver's blood, Deeks returned to the cab of his gun truck. ${ }^{82}$

The dug-in enemy seemed determined to destroy the trucks since the ambush lasted for nearly an hour, much longer than the usual 15 to 20 minutes. Meanwhile, the lieutenant wanted the jackknifed tanker moved out of the kill zone and asked who knew how to drive one. At great risk to himself, Grailin Weeks climbed in the vehicle, with its 5,000 -gallon fuel tank, and drove it out of the kill zone. The gun trucks pulled in behind and followed. The returning gun trucks passed the infantry on their way to mop up the ambush site. ${ }^{83}$

Once the convoy stopped at the checkpoint, the lieutenant told Deeks to count the trucks and drivers. He was still shaking from the ambush; the shock of the event finally caught up with him and as he was trying to get a count, he fell on his knees and started vomiting. The other drivers finished the head count for him. Another soldier, Sergeant Weeks, also began to shake uncontrollably and went into spasms. The convoy commander called for a MEDEVAC to take him back to the hospital so he could calm down. ${ }^{84}$

Grailin Weeks received the Silver Star Medal and the rest of the Playboys' crew earned Bronze Stars with V device. Larry Dahl was posthumously awarded the Medal of Honor for giving his life for his crew. Dahl's Medal of Honor proved that even truck drivers could be heroes.

These men had a bond that made losing a crew member like losing a brother. Because most drivers became more cautious in their last 30 days in country, the company allowed them the option to quit driving and work on details around the base camp. Most gun-truck crew members instead drove up until their last day. However, some did give up driving, if they had lost a crew member or buddy. Walter Deeks quit driving his last 30 days after his best friend was killed in an ambush. Similarly, Ron Mallory stopped driving after an ambush killed his close friend. Diaz did not return to Vietnam. Chuck Hauser, though, recovered and went back to serve on gun trucks. ${ }^{85}$

## The Best Deterrent

French Mobile Group 100's destruction in 1954 resulted from a series of continued attacks by a guerrilla force against a road-bound mechanized force. The French had tanks and half tracks, essentially the same firepower as the United States, except for one important element. They lacked attack helicopters and overwhelming air power. The NVA had learned the hard way during its first engagement with the 1st Cavalry Division, in the Battle of Ia Drang in 1965, to fear American air power. That is why the enemy usually did not remain near the ambush site for more than 20 minutes after firing the first round. Air cover turned out to be the best deterrent against convoy ambushes.

Air cover, whether it was a fixed-wing or rotary-wing asset, could observe the enemy and call in helicopter gunships, or at least warn the convoys. By 1969, the 500th Group at Cam Ranh Bay had developed an SOP where no convoy would leave without air support. Generally, AH-1 Cobra gunships flew escort inland to Ban Me Thout. Then a fixed-wing observer
aircraft escorted the convoy the rest of the way. These also could call in gunships. When the 500th Group drove into the 1st Cavalry Division AO, it received gunships as escort. From July 1969 to July 1970, only one of Lieutenant Colonel Edward Honor's convoys was ambushed, and it had no air cover. That convoy had reached its destination safely, but a low ceiling prevented aircraft from escorting the convoy back. As long as convoys had air cover, in any form, the enemy did not ambush them. ${ }^{86}$

After the 2 September 1967 ambush, the 8th Group only received L19 observation planes when intelligence indicated a likelihood of enemy activity. In the Central Highlands, pilots did not like to escort slow-moving convoys. When convoys had air support, the aircraft tended to fly off and leave the convoys while they looked for the enemy. Aviation was a rationed asset. However, enemy ambushes had also increased in duration from 20 to 30 minutes. In 1970, aviation units escorted convoys on the average of 4.6 times per week. In September 1970, MACV reduced flying hours by 15 percent. Instead, helicopter gunships remained on "strip alert" at nearby airfields while monitoring the convoy's progress on the radios. This reduced the reaction time to get airborne from five minutes to two. That slight difference allowed the helicopters to catch the enemy before it broke contact. The further reduction of aviation units, which accelerated during 1970, spread this support thinner. Most aviation units returned to a five-minute reaction time to get airborne. This policy changed, however, after the ambush on 23 February $1971 .{ }^{87}$

The length and ferocity of the February 1971 ambush indicated the enemy acted bravely in the absence of air cover. Similarly, the 39th Transportation Battalion, during Operation Lam Son 719 in I Corps from 30 January to 7 April 1971, when lucky enough to receive air cover (it was often requested and even more often turned down), had no attacks on its convoys. After the 23 February ambush, the 7th Squadron, 17th Air Cavalry was commanded to fly low and slow over convoys looking for wires and enemy spider holes. They flew so low that the drivers could reach up and touch the skids. This was boring duty for the pilots, but they challenged their flying skills by landing on the back of empty trailers or following in between the trucks. When weather grounded the helicopters, the trucks still had to drive; this led to problems if proper coordination had not been completed. For an aviation unit to provide adequate support, the convoy needed its radio frequencies. The convoy planners also needed to coordinate the handoff between aviation assets at terrain features where enemy activity was unlikely to occur. Otherwise, confusion might arise over which aviation unit was responsible for engaging the enemy. ${ }^{88}$

Just the same, the gun truck provided the initial defense when an ambush began. The success of the hardened convoy spread to three of the four corps tactical zones in Vietnam. This attested to its success. It first spread north to the I Corps Tactical Area when truck companies from the 8th Group moved to that area in December 1967. In 1968, the Army assumed a greater role in that area formerly run by the US Navy and Marine Corps. Those truck companies sent north took their gun trucks with them. By 1968, the 500th Group at Cam Ranh Bay noticed the merits of the concept and also adopted gun trucks. For some reason they started with wooden gun boxes but discarded them for steel gun boxes and APC hulls. At Cam Ranh Bay, the gun trucks recruited their crews from quartermaster depot men so as not to deplete the truck companies of drivers. Only the 48th Transportation Group at Long Binh did not adopt gun trucks. They had another solution. ${ }^{89}$

## Notes

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3. Collins interview.
4. Colonel (R) Melvin M. Wolfe, interview by author, 31 March and 14 April 2004, telephone; and COL (R) Philip N. Smiley, interview by author, 2 April 2004, telephone.
5. Wolfe interview; Horvath interview.
6. Colonel Joe O. Bellino, "8th Transportation Group; Sep 1967-Sep 1968." n.d; and Phillip C. Brown and J.D. Calhoun, interview by author, New Orleans, LA, 13 June 2003.
7. Bellino, "8th Transportation;" Wolfe interview.
8. Brown and Calhoun interview.
9. Bellino, "8th Transportation."
10. Wolfe, Smiley and Burke interviews. These commanders examined the ambush site and saw evidence the enemy had spent several days digging fighting positions.
11. COL (R) John Burke, interview by author, 30 March 2004, telephone.
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13. Bellino, " 8 th Transportation."
14. Brigadier General Garland Ludy, interview by author, 29 April 2004, telephone; and Collins interviews.
15. Burke and Wolfe interviews.
16. MAJ Nicholas H. Collins, "Battalion S-3 Notes," Headquarters, 54th Transportation Battalion, APO 96238, 5 March 1967; Burke interview and Collins interview.
17. Bellino, "8th Transportation;" and Jim Rose, interview by author, 3 April 2004, email.
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27. Ibid.
28. Ibid.
29. Ibid.
30. Ibid.
31. Ibid.
32. The ambush report states the call was "ambush" instead of "contact."
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34. Ibid.
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36. COL David H. Thomas, "Vehicle Convoy Security Operations in the Republic of Vietnam," Active Project No. ACG-78F, US Army Contact Team in Vietnam, APO San Francisco, CA 96384, 30 Sep 71, II-40.
37. Bellino, " 8 th Transportation."
38. Ibid.
39. Ibid.
40. Sammy Seay and John Cochran, interview by author, Fort Eustis, VA, 14 June 2003.
41. Bellino, "8th Transportation;" and LTC John C. Kramer, "Operational Report of 124th Transportation Battalion (Truck) for Period Ending 31 July 1969," 8 August 1969.
42. Larry Fiandt and James Lyles, ongoing personal conversations and correspondence with author.
43. Brown and Calhoun interview.
44. Thomas, "Vehicle Convoy Security," II-21.
45. Collins, Horvath, and Richards interviews.
46. Bellino, "8th Transportation;" and Ronald Smith, interview of by author, 17 June 2005, telephone.
47. Thomas, "Vehicle Convoy Security," II-21-23.
48. Seay and Cochran interview. James Lyles referred to these portable guns as "ditch guns."
49. Laura Hicks, interview by Barbara Bower, 7 April 2004, email; Horvath, Burke, Brown, and Calhoun interviews.
50. Ludy interview; and Lonnie Garret, interview by author, November 2004, telephone; and discussion with James Lyles.
51. Ronald Voightritter, interview by author, 26 May 2004, email.
52. Burke interview.
53. Ronald Mallory, interview by author, Fort Eustis, VA, 14 June 2004.
54. Thomas, "Vehicle Convoy Security," B-1-4.
55. Ibid., Mallory interview; and Erik Freeman, interview by author, New Orleans, LA, 11 July 2002..
56. Thomas, "Vehicle Convoy Security," B-1-4.
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65. Jim Rose, interview by author, 03 April 2004, email.
66. Thomas, "Vehicle Convoy Security," II-25.
67. Freeman interview; Bellino, "8th Transportation Group;" and Thomas, "Vehicle Convoy Security," II-25-26.
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74. Freeman interview.
75. Freeman/Sims email and Freeman interview.
76. Freeman, Deeks, and Mallory interviews.
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80. Mallory interview.
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## Chapter 4 <br> Convoy Alternatives to the Gun Truck

## 48th Group

The 48th Transportation Group consisted of two battalions stationed at Long Binh in III Corps Tactical Zone. The 6th Battalion included all light truck companies and the 7th Battalion contained all the medium truck companies. Long Binh cleared cargo from Saigon and the military terminal at Newport, and delivered to base camps throughout the region. This southern part of the country gently sloped toward the Saigon and Mekong Rivers. Consequently, the unimproved roads that flowed out from Long Binh and Saigon, like the spokes of a wheel, were flat and filled with potholes.

25 August 1968 was a typical monsoon-season day. The clouds hung low, making flying for helicopters dangerous, while intermittent hard rain drenched the area. A large resupply convoy of 81 trucks from the 48th Transportation Group departed Long Binh in three serials with six refrigeration trucks in the front, followed by cargo trucks, then fuel and ammunition trucks in the rear. If the enemy incapacitated a fuel or ammunition truck, the first half of the convoy would still be able to escape. ${ }^{1}$

The convoy proceeded west along Route 1 from Saigon past the 25th Infantry Division base camp at Cu Chi. There, the convoy divided into two serials and advanced on to Go Dau Ha at the intersection of Route 1 and Route 22. It then turned northwest onto Route 22, then drove through the village of Ap Nhi just 20 kilometers short of its destination at Tay Ninh. This convoy resupplied the 1st Brigade, 25th Infantry Division located just seven miles from the Cambodian border. It usually took several hours to complete the trip because of the mandated convoy speed limit of 20 miles per hour. ${ }^{2}$

Normally, the 1st and 3d Brigades of the 25th Infantry Division provided road security along the main supply route, but the new division commander, Major General Ellis W. Williamson, had ordered the 3d Brigade to Saigon. Convoy security was a high priority, but MACV respected the local commander's decision. This force reduction resulted from the anticipated third phase of the General Offensive of 1968. From 17 to 24 August, the 1st Brigade had successfully fought off 13 enemy battalion or regimental attacks, including seven attacks on the 1st Brigade's bases. 1st Brigade's intelligence officer had determined that 16,000 combat-ready troops of the 5th and 9th NVA Divisions, accompanied by an anti-aircraft battalion and two attached VC battalions, would mass against it. The division's
intelligence officer, however, believed Saigon was the main target. General Williamson then moved the 2dBattalion, 34th Armor back to Cu Chi, while still ordering the 1st Brigade to secure the main supply route. This proved a fatal mistake. The brigade commander, Colonel Duquesne "Duke" Wolf, doubted whether he could defend his six bases, let alone the main supply route with his meager force. His brigade only consisted of three under-manned rifle companies, three under-manned mechanized infantry companies, two 105 mm artillery batteries, and two medium batteries with no armored cavalry units attached. Wolf challenged General Williamson's decision, but to no avail. Only eight MP gun jeeps provided security for the 81 vehicles in the convoy. ${ }^{3}$

The village of Ap Nhi and the Ben Cui Rubber Plantation, known locally as "Little Rubber," flanked Route 22 for about a mile. Farm land primarily surrounded the Ap Nhi side, while the Little Rubber side had rubber trees growing to about 15 feet, just off the road. A drainage ditch and an earthen berm paralleled the road inside the trees. Elements of the 88th NVA Regiment had moved into the Little Rubber the evening of 24 August on preparation of an ambush. At 1145 the convoy entered the quiet village of Ap Nhi. It was misting and raining and the ceiling hung low about 200 feet above ground. The convoy passed what looked like a column of ARVN soldiers marching along the north side of the road adjacent to the Little Rubber. As the convoy's lead vehicles began to leave the village and the ammo and fuel vehicles were alongside the column, the supposed ARVN soldiers opened fire on the convoy. The soldiers turned out to be Viet Cong. ${ }^{4}$

This signaled the VC and NVA troops positioned in the Little Rubber to initiate an intense barrage of rocket, machine gun, and automatic-weapons fire on the convoy. The enemy first targeted the eight gun jeeps, and then fired at the lead fuel trucks hoping to block part of the convoy. Two fuel tankers began to blaze. Thirty trucks in front of them sped away, following SOP, leaving 51 trucks stranded in the mile-long kill zone. The enemy then ignited two ammunition trailers with 105 mm rounds at the rear of the convoy sealing the trucks in place. The drivers climbed out of their vehicles and took up defensive positions either behind their trucks or in the ditch along the road. The enemy had thoroughly planned the ambush though-it occurred well beyond the range of the 1st Brigade's artillery. Likewise, the low ceiling initially prevented the use of air support. With the convoy trapped, the enemy left its cover and made a rush on the column of trucks. ${ }^{5}$

When the convoy stopped, Specialist 4 William W. Seay, of the 62d Transportation Company, immediately jumped out of his truck and took
a defensive position behind the left rear dual wheels of his truck. Seay's trailer carried high-explosive artillery powder charges. Specialist 4 David M. Sellman, also of the 62d, in the truck behind Seay did the same. Another driver joined him. The three drivers fought about 20 feet apart. When the North Vietnamese assault reached to within 10 meters of the road, Seay, who was the closest, opened fire, killing two of the enemy. Sellman shot one enemy soldier just 15 meters in front of him, then his M16 jammed. The drivers, however, had effectively turned back the first enemy assault. ${ }^{6}$

The beleaguered drivers came under automatic fire from the berm and under sniper fire from the trees. Seay spotted a sniper in a tree approximately 75 meters to his right front and killed him. Within minutes an enemy grenade rolled under the trailer a few feet from Sellman. Without hesitation, Seay ran from his covered position while under rapid enemy fire, picked up the grenade, and threw it back to the North Vietnamese position. Four enemy emerged from their covered position and attempted to run, but the grenade explosion killed them. Minutes later another enemy grenade rolled near the group of drivers. Sellman kicked it off the road behind him. After it detonated, another enemy grenade rolled under Seay's trailer approximately three meters from his position. Again, Seay left his protection and threw the armed grenade back at the enemy. Simultaneously, Sellman shot an enemy soldier crawling through the fence. After Seay returned to his position, he and Sellman killed two more NVA soldiers trying to crawl through the fence. Suddenly, a bullet shattered the bone in Seay's right wrist. He called for Sellman to cover him as he ran back to the rear where someone could treat his wound. ${ }^{7}$

Seay located Lieutenant Howard Brockbank, Specialist 4 William Hinote, and four other drivers together. Hinote could see that Seay had lost much blood and was in pain. One man applied a sterile dressing on the wound, but it did not stop the bleeding. Hinote then tied a tourniquet around Seay's wrist with his shirt. Seay continued to give encouragement and direction to his fellow soldiers. Hinote mentioned his concern about Seay's shattered wrist, but Seay told him to stay alive and not to worry about him. One soldier fired a full clip of his M16 in one burst and Seay admonished him, "Take it easy! Don't waste your ammo-we may run out. What will we do then, stand up and fight them with our fists? I wouldn't be any good at that!" ${ }^{8}$

Weak from his loss of blood, Seay moved to the relative cover of a shallow ditch to rest. After another half hour of fighting, Hinote brought him some water. They occasionally fired at enemy positions while waiting for
the next attack. Seay noticed three enemy soldiers who had crossed the road were preparing to shoot his comrades. Seay raised to a half crouch and fired his rifle with his left hand, killing all three. Then, a sniper's bullet struck Seay in the head, killing him instantly. He only had 60 days left in country. ${ }^{9}$

Two Huey UH-1C model helicopters, equipped with two door gunners, 14 rockets, and a mini-gun, from Company B, 25th Aviation Battalion, responded first. Warrant Offier Robert J. "Bob" Spliter was one of the first to arrive. The commander on the ground informed him the enemy was in the rubber plantation bordering the road. Spliter recognized drivers in the ditch and enemy soldiers unloading the American trucks. They carried the supplies into the tree line and then loaded them onto their own trucks. Since the low ceiling prevented the gunships from attacking at regular angles, they had difficulty engaging the enemy. The Hueys normally rolled in on the target from a steep dive from about 1,500 feet. Instead, the pilots had to fly in above the tree tops and fire their rockets on a flat trajectory at point-blank range, all while receiving enemy ground fire. After expending most of their fuel and ammunition, they hovered low over the tree line to save fuel, simultaneously firing rockets, door guns, and mini-guns at the enemy, who was everywhere. Soon, the pilots ran out of ammunition and called for the next "Diamondhead" light-fire team to replace them. Spliter briefed them mid-air and the transition of battle occurred seamlessly. The two helicopters flew back to Cu Chi to refuel, rearm, and wait for the next mission, after helping to hold the enemy at bay. ${ }^{10}$

1st Brigade's delayed response resulted both from a communications problem and the remoteness of the ambush location. By 1430, tanks and infantry arrived in the area and 30 minutes later helicopters inserted two infantry companies. However, the smoldering fuel tankers blocked the road and prevented tanks from advancing farther to aid the drivers. Heavy enemy fire pinned the infantry down. ${ }^{11}$

A squad from the 65th Engineer Battalion, led by Sergeant Gregory Haley and accompanied by two APCs from the 1st Battalion, 5th Infantry, happened to be sweeping the road for mines and discovered the rear of the convoy. Since they could not drive past the incinerated ammunition trailers and acute enemy fire, they joined the fight. One of their APC's . 50 caliber machine guns was burned out from previous fighting and the other continually jammed, so they engaged the enemy with M-60s, M16s, and grenades. As ammunition began to run low, Sergeant Haley maneuvered to the rear of one of the APCs and secured more ammunition and another M-60. As he jumped down, he realized his weapon had no trigger, so he
returned and grabbed another, fed a belt of ammunition into the $M-60$, and opened fire. The weapon jammed. He pulled the charging handle and it broke off in his hand. ${ }^{12}$

The battle continued for a few more hours. Five tractors and a gun jeep, that had already reached Tay Ninh, dropped their trailers and returned by a back road to help recover damaged vehicles and trailers. By then, the American infantry had gained control of the kill zone. Around 2100, an armored cavalry troop finally arrived at the rear of the column and forced the enemy to withdraw. Seven drivers lost their lives in the ambush, 10 more were wounded and two were taken prisoner. The relief force lost 23 killed and 35 wounded. This was the first large-scale ambush the 48th Group had encountered. ${ }^{13}$

Having faced a devastating ambush similar to what 8th Group experienced on 2 September 1967, the 48th Transportation Group developed a different solution, one that started with making everyone wear their helmets and protective vests. A soldier from the two truck battalions had not been killed in an ambush since 22 November 1966, and the drivers had become complacent and quit wearing protective gear because of the heat. 48th Group also required that trucks include assistant drivers or "shotguns" to ride along. This added extra riflemen in a fight. In previous ambushes, they had followed the SOP to not stop in the kill zone, but they had no choice if vehicles blocked the narrow roads, as happened on 25 August when they could not turn around and drive out of the kill zone. In this case, the drivers had to fight as infantrymen until the nearest reaction force arrived. The reaction force's slow response on 25 August was an embarrassment to the 25th Infantry Division, so the soldiers set out to resolve the problem. ${ }^{14}$

In August 1968, representatives from the MPs, the divisions, and the transportation units held several conferences to define relationships. According to a 1971 report, the Provost Marshal of the 25th Infantry Division assumed responsibility for convoy security of the 48th Group convoys. He flew overhead in an aircraft and shared control of the convoy with the convoy commander on the ground. In the event of an ambush, infantry or cavalry commanders took charge of the convoy. ${ }^{15}$

Colonel Paul Swanson assumed command of the 48th Group in November 1968. Swanson opposed the use of gun trucks. This is surprising since the 48th Group had previously built armored gun trucks. In the fall of 1967, the 6th Battalion received the tasking to conduct a night convoy south to support the 9th Infantry Division. Anticipating ambushes, the 6th

Battalion welded steel plates to the doors of 20 light trucks and two jeeps. They also fabricated a machine-gun mount and welded it to the right side of the cab so the assistant driver could fire while standing up. Just as expected, the convoy was assaulted and the trucks repelled the attackers. Afterwards, the battalion no longer conducted night convoys, and the guntruck concept did not spread any further in the 48th Group. ${ }^{16}$

Instead, Swanson believed the combat commander remained responsible for convoy security. Ambushes usually ended when the infantry and tanks arrived and swept through the area. He did not want to crowd into the infantry's mission or take task vehicles off the road. Swanson did, however, allow drivers to imbed steel plating on the sides of their cabs for individual protection. During the Ap Nhi ambush, the field commander arbitrarily pulled the infantry from defending the road to defending Saigon, thus leaving the convoys vulnerable. The trucks needed some guarantee the combat arms would not leave them unprotected again. Swanson told the 1st and 25th Infantry Divisions if they wanted their cargo to pass through, they needed to keep the enemy off of his convoys. It helped that the G3 of the 25th Infantry Division was a classmate of his from the Army War College. For the next year, the 25th Infantry Division provided excellent support. This relationship was all personality-driven, though. ${ }^{17}$

By 1970, the 1st Infantry Division started more aggressively patrolling its main supply route as the 25 th Infantry Division prepared to leave Vietnam. The mechanized infantry and armored cavalry began escorting convoys, but only when intelligence indicated an increase in enemy activity. Since intelligence on enemy activity was often faulty, convoys were still ambushed when not escorted by APCs and tanks. Yet, the 48th Group had the only convoys in Vietnam to run with tanks and APCs and coordinate an effective relationship. This was feasible because of the road conditions; the roads were so rough in the Long Binh area that trucks could travel no faster than 30 mph . At that speed, APCs and tanks could keep up. Tanks were usually integrated in the middle of the convoy while the APCs were placed in the lead. However, combat soldiers understood the trucks were targets and the drivers complained that APCs preferred to speed up and leave them behind.

For the 8th Group, ambushes usually occurred along the mountain passes or turns where convoy speed decreased. Using tanks as escorts did not work in the mountainous areas of the country, and once the roads were paved, the convoys out of Qui Nhon and Cam Ranh Bay traveled as fast as the trucks permitted, exceeding the rate of tanks and APCs. Speed was
security against an ambush. Besides, the runs out of Qui Nhon and Cam Ranh Bay took all day or even two days. Those out of Long Binh were much shorter. Tanks and APCs were not designed to routinely run long distances without major mechanical problems. ${ }^{18}$

Problems also occurred in the different way the combat arms and transportation units operated. The infantry and cavalry liked to stop and engage the enemy while the truck drivers had learned to keep driving. Both had different SOPs for reacting to ambushes. In early 1971, the trucks of the 8th Group moved an engineer unit from Cha Rang Valley south to Tuy Hoa along Route 1. The engineer Quad . 50 was the lead gun truck, the gun truck, Paladin, was in the middle of the convoy, while the maintenance gun truck, Mickey Toms, brought up the rear. As the convoy rounded a bend, a command-detonated mine exploded under a culvert near the cut-out embankment and damaged the engineers' Quad .50 and another truck. The NVA then fired on the convoy. Instead of driving through or turning around, the engineers halted and jumped down into the ditches. As the Paladin crew maneuvered their way into the kill zone, they had to be careful not to shoot the Americans on the ground. Engaging the enemy became troublesome for the gun trucks if soldiers swept through the ambush site; they needed to coordinate the measures for controlling one another's fire and maneuver. ${ }^{19}$

According to accepted doctrine, the senior ground commander assumed overall control of the operation in the event of enemy contact when tactical assistance was required. However, convoy commanders were reluctant to relinquish control if the combat-arms officer interfered with the transporters' desire to keep moving. In one case, an infantry unit rode along with an 8th Group convoy. When the infantry lieutenant detected possible enemy soldiers, he wanted to stop the convoy so his men could sweep through the area and engage the enemy. The convoy commander told the lieutenant to go ahead, but that his convoy was continuing on. Consequently, convoy commanders in the 8th Group did not always give up control of the convoys to the security force. The combat units would stop and fight while the convoy kept driving.

During 1969, the 48th Group and the 25th Infantry Division had an excellent working relationship. The infantry and cavalry understood the truck units' SOPs and encouraged the drivers to clear the kill zone while the combat-arms units engaged the enemy. Representatives from the transportation units, MPs, and combat arms held several meetings to define their relationship and responsibilities. Then the units published jointly
coordinated SOPs. The lesson was simple-different branches had to amicably agree about convoy-security procedures. The fundamental problem, as seen with the ambush on 25 August 1968, was that this relationship was personality-driven. A ground commander did not have to adequately protect the convoys. Without assets dedicated to the transportation commands, convoy support varied according to the priority the ground commander placed upon it. Yet, these solutions only addressed the ground aspect of convoy security. Neither tanks, nor APCs were the most effective deterrent against ambushes, since the enemy attacked convoys when and where no infantry or tanks protected them. ${ }^{20}$

## Built-up Areas

Driving through built-up areas in Vietnam increased the risk to vehicles, cargo, and drivers. Convoys out of Long Binh heading to Tay Ninh first had to pass through the streets of Saigon, risking separation by intruding civilian traffic. Vehicles also took wrong turns and often got lost. Similarly, the congested streets slowed traffic and made the cargo-laden trucks objects of theft. Local Vietnamese would climb on the backs of the slow-paced vehicles, break the locks, and toss the contents down to their accomplices. These same conditions made it easier to snipe at the drivers. One Vietnamese woman in Saigon would actually climb up on the running boards and shoot drivers with a pistol. The engineers soon solved these problems by building the Phu Con Bridge in 1968 that allowed convoys to bypass Saigon. ${ }^{21}$

In Vietnam, the enemy tried to use the rules of engagement to its advantage. Since the VC often blended in as civilians, in certain areas Americans could not fire unless fired upon, and some populated areas were designated as "no-fire zones." In such areas, the guerrillas placed obstacles in the roads to slow the trucks down so that they could snipe at the drivers. Convoys often disregarded the no-fire rule and fired back. Despite the rules of engagement, soldiers were going to defend themselves. Survival was paramount in the minds of the drivers. Gunners had to be extremely careful about selecting their targets, though. In the heat of the fight, it was hard to maintain fire control. Walter Deeks remembered an incident during the 23 February 1971 ambush where, when moving an engineer unit, one of the new machine gunners riddled a mud building with a .50 caliber machine gun before he could stop him. Deeks was convinced there were no survivors, but an old woman, child, and pig managed to crawl out. Thankfully, no one was killed. ${ }^{22}$

Gun-truck crews always assumed significant risk when firing, since
killing or injuring a civilian could cause an international media uproar. For that reason, the VC liked to conduct ambushes from villages along the roadside. Not surprisingly, when civilians were unintentionally killed the local VC propaganda machine would label these accidents atrocities. Some villages became notorious for sniping and ambushes. For example, a bridge along Route 19 had an odd shape that required the 8th Group convoys to slow down when crossing it. The convoys often received much small-arms fire from the village at that bridge. Finally tired of the harassment, MACV sent orders for the civilians to leave. Then, American soldiers burned the village to the ground. In this case, the convoy could not drive around the populated area, so the only solution was to remove the village.

## Notes

1. Stephen C. Tunnell, "Convoy Ambush at Ap Nhi," Vietnam, (April 1999).
2. Ibid.
3. Ibid.
4. Ibid.
5. Ibid.
6. Ibid.
7. Ibid.
8. Ibid.
9. Ibid.
10. Ron Leonard, "The Ambush At Ap Nhi," unpublished.
11. Tunnell, "Ambush at Ap Nhi."
12. Ibid.
13. Ibid.
14. BG Orvil C. Metheny, interview by CPT Louis C. Johnson, 22 November 1985; and BG (R) Orvil Metheny, interview by author, 19 March 2004, telephone.
15. Metheny interviews; and Thomas, "Vehicle Convoy Security," II-32.
16. LTC (R) Larry Ondic, ongoing discussion with author, Fort Eustis, VA.
17. Metheny interviews.
18. Horvath interview.
19. Deeks interview.
20. Metheny interviews.
21. Larry Ondic interview. Similar mining, sniping, and ambushes occurred in Mogadishu, Somalia during convoy operations from 1993 to 1994. Convoys were subject to ambushes by General Mohamed Farah Aideed's militia until the engineers finally completed a detour along the coast around the airfield and city. In built-up areas, the best defense against ambushes is to avoid those areas by driving around. This is not always possible, however. Unfortunately, collections of houses and small villages usually lined all roads in Vietnam.
22. Deeks interview.

## Chapter 5

## Lessons Unlearned?

Vietnam veterans justified their war losses by the lessons learned. They pioneered the gun truck for the US Army and developed the concept of the hardened convoy. They believed other soldiers should not have to make the same mistakes. Colonel Bellino printed a detailed report showcasing the progression of the hardened convoy during his command of 8th Group from September 1967 to September 1968. With the war nearing its end in 1971, the Army conducted another study of convoy security and published its findings. As the Army prepared to leave Vietnam, Captain Donald Voightritter had the presence of mind to preserve one gun truck. He selected the Eve of Destruction, the gun truck he felt was the best proven design with its double steel walls and air gap, four .50 caliber machine guns, and bullet-proof windshield. He completed the paperwork to have it shipped to the Army Transportation Corps Museum in June 1971 so later generations could access this first-rate example of the hardened convoy. It would stand as a reminder of the hard-learned lessons of convoy ambushes in Vietnam. These were, unfortunately, lessons soon forgotten.

In its hasty extraction from the quagmire of Vietnam, the US Army incorrectly thought it had learned one important lesson-that it would never encounter another counterinsurgency. The gun-truck lessons found their way into the manuals, but the Army quickly shifted its focus from analyzing Vietnam to developing a doctrine for fighting the Soviet horde on the plains of Europe. Bellino's report was tucked away, like an old relic from the past, in the Transportation Corps Museum and Transportation School Library along with the Eve of Destruction. The gun-truck cause did have a few champions, however.

Lieutenant Colonel Fred E. Elam commanded the 29th Transportation Battalion at Fort Campbell, Kentucky from June 1974 through January 1976. While in command, he directed each company to convert one cargo truck into a gun truck. He instructed the training-aids shop to build armor plating out of plywood and pedestal mounts for the M-60s. Because gun trucks were still not authorized on the table of organization and equipment, this was only a temporary measure. His training aids reinforced the lessons of the hardened convoy and gained popularity. The brigade commanders of the 101st Airborne Division even requested gun trucks for their training. By 1977, however, the possibility of building gun trucks became even more difficult. Transportation companies had to turn in all .50 caliber machine guns and ring mounts, and experienced significant reduction of
other weapon systems. When Major General Elam became the Chief of Transportation in August 1985, he continued to spread the lesson of the hardened convoy. He directed the 7th Transportation Group at Fort Eustis, Virginia to build and incorporate the gun truck into its training. After he left in April 1988, though, the memory of the gun truck began to fade. ${ }^{1}$

In 1989, Colonel Elijah Toney, Director of Combat Developments at the Transportation Center, Fort Eustis, Virginia, coordinated with General Motors to demonstrate their light armored vehicle (LAV) 25 in the role of the armored gun truck to the Transportation Center leadership. Colonel Toney had served in Vietnam and witnessed firsthand the need for some form of gun truck. I Corps at Fort Lewis, Washington issued the LAV, in 1988, to the MPs to escort a platoon of trucks while a platoon of infantry from the 7th Infantry Division (Light) ambushed the convoy during training exercises at Fort Hunter in Ligget, California. The MPs recognized the LAV provided more protection than a jeep or HMMWV. It had an off-road capability the gun truck did not.

Competition over defense dollars precluded the Army from having the luxury to afford everything it wanted. The combat arms usually received the highest priority during the Cold War. Of the Transportation Corps' priorities, replacements for the prime movers always topped the list. The 20th century's concept of the communication zone and safe rear area did not foresee convoys needing force-protection assets. Lieutenant General William Tuttle, Commanding General for Combat Arms Support Command, rejected Toney's idea before it went to Directorate of Combat Development (DCD), Training and Doctrine Command. Colonel Toney brought the subject up to the Undersecretary of the Army, James R. Ambrose, in a briefing about heavy equipment trailers (HET), family of military tactical vehicles (FMTV) and the pallet load system (PLS). Ambrose asked that Toney talk to him more about the LAV the next time he visited the Pentagon. Toney later learned Ambrose would have approved the LAV as a convoy-support vehicle had it reached his desk. ${ }^{2}$

A long since retired Colonel Bellino returned to the Army Transportation School to speak, in 1989, about gun-truck history and the hardened convoy. To his surprise, few people knew anything about the gun trucks of Vietnam. By 1992, nearly 20 years after the last truck company left Vietnam, almost all institutional memory of the gun truck had retired with the veterans.

The convoy ambushes in Mogadishu, Somalia, between 1993 and 1994, should have alerted Army leadership to the fact that insurgent ambushes are
not simply history, but a constant reality. A mine incident on 8 August 1993, where four MPs from the 977th MP Company died, resulted in the Army acquisition executive directing the Program Executive Office for Tactical Wheeled Vehicles to develop and produce the up-armored HMMWV. Mr. John Weaver became the program manager for tactical vehicle special programs (TVSP). In January 1994, Captain Friedrich Wehrli, the assistant program manager, delivered the first 50 MX1109 up-armored HMMWV prototypes to Somalia. It was a step in the right direction. By the beginning of the war in Iraq, the M1114 was the only armored vehicle in the Army's arsenal for escorting convoys, and the up-armored HMMWVs were issued to the MPs and armored cavalry regiments.

In March 2003, the 507th Maintenance Company in An Nasariyah, Iraq was ambushed, sending shock waves through the US Army. Not until the June ambushes, though, did transportation units begin developing convoysecurity vehicles. In the absence of an effective host-nation military, the Army had to pacify resistance until the new Iraqi military and police force could secure its own streets. Terrorist attacks and convoy harassment continue to this day, and US casualties keep mounting. The US Army in Iraq now finds itself in the exact war it believed would never again exist after Vietnam. Iraq's war for the roads has intensified the need for convoy-security vehicles and doctrine.

As in Vietnam, the soldiers would once again repeat the process of building gun trucks and cultivating a doctrine to employ them, since the shortage of MPs at the beginning of OIF (convoy escort was seen as an MP responsibility) forced many units to take protection into their own hands. Initially, convoy-security doctrine for Iraq began with requiring two HMMWV gun trucks to escort convoys regardless of their size, whether they contained 20 vehicles or 100 . Any vehicle with a crew-served weapon such as an M249 SAW was considered a gun truck. Convoy doctrine then progressed to two HMMWV escorts running ahead of the convoy as either "Tiger Teams" or "Rat Patrols," then to gun trucks interspersed in the convoy front, middle, and rear with a ratio of one gun truck to every 10 prime movers. Because of the shortage of M1114 up-armored HMMWVs, a number of units built their own version of gun trucks. The unarmored HMMWVs had soft tops unable to support the weight of ring mounts; similarly, the cabs of some trucks could not support the weight either. As limited amounts of steel plating became available, small boxes, resembling wedding-cake boxes, were welded on the backs of HMMWVs or cargo trucks. Other drivers and mechanics constructed sandbag "dog houses" on the backs of their trucks to house a single SAW gunner. Again,
drivers mimicked the same first steps that were taken in Vietnam. By the end of 2003, more steel allowed the welders to construct gun boxes that encompassed the entire truck bed. Gun-truck crews realized the SAW, with its 5.56 mm ammunition, could not beat back a determined enemy. Hence, they began mounting M2 .50 caliber machine guns or MK-19 automatic grenade launchers either on pedestal mounts in the gun box or on ring mounts over the cab. Some gun trucks added two crew-served weapons.

The HMMWV had replaced both the M151 jeep and $2 \frac{1}{2}$-ton truck. It was an improvement over the jeep because it could support the additional weight of armor and still maintain the ability to rapidly accelerate. This made it the preferred choice of senior leaders, as the gun-truck platform for the war's first few years. Unfortunately though, the extra weight stressed out the suspension system and the vehicle tended to roll over on turns at high rates of speed. Also, its low profile made it more vulnerable to the full blast effect of IEDs, which usually caused the HMMWV to flip as well. However, the early threat scenario in Iraq only necessitated two HMMWV gun trucks as escort.

Just like the ambush on 2 September 1967 in Vietnam, the convoy ambushes over Easter weekend, 9-11 April 2004, served as the turning point for convoy operations in Iraq. The enemy made a concerted effort to destroy entire convoys with kill zones several miles long. The American response closely resembled the solution in Vietnam. Just like the gun truck evolved, convoy-security doctrine in Iraq developed in a remarkably similar fashion to the way it did in Vietnam. Convoy serials were limited to 30 vehicles with one gun truck to every 5 prime movers. Transportation units realized convoys over 30 vehicles were harder to manage, subsequently traveled slower, and experienced more vehicle breakdowns. Units also wanted gun trucks to be more intimidating than the HMMWV. This and the greater availability of steel encouraged the proliferation of 5-ton and larger gun trucks. Crews increasingly viewed the 5 -ton as a safer platform. IEDs only rocked the larger gun trucks. Since the HMMWV gun trucks were riddled with problems, senior leaders reluctantly paid more attention to the 5-ton gun truck, which had not seen much official sponsorship in its development.

With the exception of one transportation group in Vietnam, all others realized highly visible gun trucks armed with the heaviest machine guns afforded the best vehicle deterrent against ambushes. After years of experimentation, the 8th Transportation Group concluded that the 5 -ton gun truck proved the best fighting platform. The armored box established itself as the
best design, when at least three men were in the box with an unobstructed view of the road, watching for signs of an ambush. Gun trucks needed as much ammunition as could possibly be carried and required ample radio communications so they could perform the role of control vehicles. Since protection of the trucks is the purpose of escort vehicles, the gun trucks needed to belong to the transportation units.

Senior officers do not like their crews exposed in the open gun box. They want their crews protected behind 360 degrees of armor; some see the larger gun-truck platform as a mere substitute until the fielding of the M1117 armored support vehicle (ASV), which echoes the same sentiments Bellino and other senior officers had during the first two years of the gun truck's birth. The ASV closely resembles the V-100 armored car of the Vietnam War and, in fact, is built by the same company, Cadillac Gage. Senior leaders then and now fail to understand that crews hate being confined or having their vision restricted. The past teaches us that a gun truck should offer ballistic protection against any threat, but should not restrict observation. The ASV may experience the same fate as the V-100.

Armored combat vehicles like the V -100 that are built from the ground up just for convoy security have another problem - they will invariably lose the budget battle that follows each war. Gun trucks do not serve a purpose during peace and, with no perceived need, they fall out of the inventory. Despite this sad history, the money could be more effectively spent on easily assembled kits that can be placed on any cargo truck bed and then stored when not in use. The table of organization should authorize a war-time augmentation of a gun-truck platoon or company, and the crews should be selected primarily from volunteers.

In Iraq, counter-ambush tactics are distinct in that convoys clear the kill zone and form a box several miles ahead. The enemy has adjusted its tactics to the box formation by planning for two kill zones, one of which is to catch the convoy assembling at its rally point. This has caused some truck companies to abandon the box formation and replace it with a rolling rally point instead. Vehicles escaping the kill zone slow down just enough to let the rest of the convoy catch up. This doctrine resembles 19th-century practices. During the Vietnam War, the convoys would, instead, race to the nearest security check point.

The US Army's rich history of convoy organization validates many of the lessons currently being learned in OIF. From this past we know several things: The advance guard should move faster than the convoy's main body so it can race ahead to locate enemy threat and clear all traffic obstacles.

It must be able to engage the enemy, detect or negate any IEDs, and communicate with the convoy commander. For this reason, the advance party requires fast armored and armed vehicles. If MPs are used in a convoy, the advance guard is a good place for them. They can conduct traffic control and coordinate with the local police. However, the convoy commander must have eyes out front that he can trust and should not rely entirely upon units he has no quality control over. One of the great fears of convoy commanders driving through populated areas is taking the wrong turn. Convoy commanders should select their best teams for advance guard.

In a high-threat environment, the main body must look mean. The lead vehicle should be a large gun truck capable of pushing through most blockages. Whether gun trucks are used as dedicated firing platforms or as prime movers with machine guns, the ratio should be one machine gun to every three task vehicles. The gun truck as a dedicated fighting platform can stand and place suppressive fire on the enemy in the kill zone, protect disabled vehicles, and rescue drivers. Armed task vehicles can only cover their escape from the kill zone. Gun trucks should be placed front, center, and rear of the convoy.

It is worth reiterating that a gun truck should definitely serve as a weapon platform capable of firing back on the enemy and remaining in the kill zone long enough for other vehicles to escape. While drivers in both the Vietnam and Korean Wars settled on rationing one crew-served weapon per vehicle, the primary concern is firepower. How much firepower is enough? To turn the fight back on the enemy while in the kill zone, the platforms must have extensive, overwhelming firepower. Limiting the number of weapons risks unpreparedness if the enemy escalates its level of force in an ambush. Therefore, to be on the safe side, gun trucks can never have too many weapons. How many weapons does a gun truck need? It needs as many as it can safely hold. Intimidation is a deterrent, so the gun truck should be equipped with, at the very least, three of the most menacing weapons able to place suppressive fire in any direction of attack. The enemy will usually let the stronger convoy pass in favor of ambushing the less protected one.

The convoy's trail party should be capable of protecting and recovering disabled vehicles. If the main body needs additional firepower, the gun trucks in the trail party can lend assistance. If the mechanized infantry and armored cavalry units have armored vehicles able to keep pace with the wheeled convoy, then they can form another rear guard. If the convoy comes under enemy ambush, the combat-arms element should be on the
flank of the kill zone ready to easily envelop the enemy. Most ambushes end when the combat-arms element sweeps through the kill zone. They should always remember their mission is to escort the convoy to its destination, not close with and destroy the enemy. They should read the threat situation so as not to leave the convoy unprotected. Only if necessary should they engage the enemy until a local security force can take over the battle. Then the rear guard can reassemble to join the convoy. Since this type of mission and relationship with the wheeled vehicles differs from normal combat-arms missions, the combat-arms unit should be dedicated to the task of convoy security and attached to the transportation command they support.

Command and control is also significant. If combat-arms units form part of the convoy, the commander, who best understands the convoy's mission and the capabilities of both the convoy and security elements, should be given command and control over the convoy and its security. Communication is absolutely critical. Trucks and especially gun trucks need the capability to talk to each other within the convoy and the crew members with themselves. Commanders of each element need to communicate with each convoy element. To coordinate the battle and prevent fratricide, all weapons platforms require communications with others in the fight. The commander must be able to talk with his home base, destination, and any security along the way. All the commanders need the same communications capability as the convoy commander.

Where the convoy commander is located is another critical issue. A commander, according to doctrinal practice, should position himself to have maximum influence on the action. If the ambushes take place at the head of the column, then that is where the commander should be. However, history has shown an ambush usually occurs in the middle or rear of a convoy. It is easier to observe a scene ahead than from behind. Therefore, the convoy commander should be in the rear of the convoy. Yet, assistant convoy commanders and escort commanders should be effectively trained and experienced to make intelligent decisions for their section of the convoy.
D.H. Mahan considered convoy ambushes one of the most hazardous operations in war. As witnessed throughout history and in the current conflict, the enemy continually changes its tactics. Convoy commanders must think like tacticians, not just technicians. Rather than purely reacting to adjustments in enemy tactics, convoy commanders need to anticipate the enemy and take advantage of its weaknesses while nullifying its
strengths.
Finally, aviation provides the best deterrent against ambushes, but as a limited resource cannot always escort convoys. A third dimension can exist in convoy security: the air. Helicopters, fixed-wing observation aircraft, or even remote observation aircraft can supply the "eyes in the sky."

Examining how the Army has dealt with the convoy threat in its past reveals certain similarities. History furnishes issues to learn from and substantiates lessons of the present. Consequently, any doctrine or gun-truck development should build on the examples of the past. Otherwise, the lives lost in the trial-and-error process of reinventing the wheel are unnecessary. The past and the present should, at the very least, reinforce one important lesson-gun trucks and convoy-security doctrine must have a permanent place in the US Army.

## Notes

1. MG Fred Elam, interview by author, 24 May 2004, telephone; COL Jack Dooley, personal interview by author, 15 December 2004.
2. COL Elijah Toney, interview by author, 24 May 2004, telephone.

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Buckner, Leigh
Burke, COL (R) John H.
Calhoun, J. D.
Chalker, Wayne C.
Cochran, Danny

Collins, LTC (R) Nicholas
Curry, LTC (R) John
Dodd, John
Eichenberg, LTC (R) William L.
Elam, MG (R) Fred E.
Engel, James
Fiandt, Larry
Freeman, Erik
Fuller, CPT (R) Ralph
Golden, Paul
Hicks, Larry
Holifield, Woodie
Howard, Leonard
Honor, LTG (R) Edward
Horvath, LTC (R) John M.
Hurd, David
Mallory, Ronald
Metheny, BG (R) Orvil C.
Nichols, Ellis
Ondic, LTC (R) Larry
O'Shea, Maurice "Mike"
Patrick, Wayne
Ralyea, Robert H.
Rea, John M.
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Rose, SSG (R) James
Rose, David
Seay, Sammy
Sims, Charles
Smiley, COL (R) Philip N.
Smith, Ronald
Swanson, COL (R) Paul
Toney, COL (R) Elijah
Vanrison, Mark
Voightritter, LTC (R) Ronald
Wehrli, LTC Friedrich
Wolfe, COL (R) Melvin M.

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COL. Joe O. Bellino, , by MAJ A. E. Charleston, 21 September 1968.
Laura Hicks, by Barbara Bower, 7 April 2004.

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