



Grupo de Investigación  
**Historia Militar**



## Armor in Vietnam – Fox Hunting in a Tank

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U.S. armored forces were among the first combat troops to enter South Vietnam. A platoon of M48 tanks accompanied the Marines ashore at Da Nang on 3 March 1965. From that point forward, Army and Marine tanks and armored fighting vehicles were deployed with virtually every brigade, regiment, and division entering the war zone. Like the foot- and helicopter-mobile infantrymen, the tankers and armored cavalymen faced a determined enemy, extreme changes in weather, and sometimes virtually impenetrable terrain.

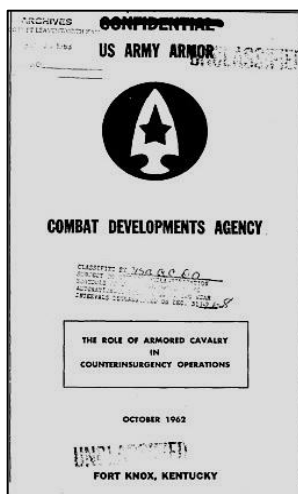
But these descendants of horse-mounted frontier Cavalrymen faced one more obstacle: the preconceived notion that counterinsurgency was the exclusive domain of the Infantry.

Following the election of President John Kennedy in 1960, the Pentagon initiated a major review of the national security strategy of the United States. The strategy that emerged from this review was entitled “Flexible Response”. The essence of this strategy was a graduated series of responses that reflected the lessons learned from post-World War II global security crises. Nuclear retaliation remained at the heart of the Nation’s military strength, but flexible response recognized that nuclear weapons were an unlikely course of action in cases such as the emerging Communist-sponsored ‘wars of national liberation’. There had to be other levels of military and non-military response for lower-level threats.

The U.S. Army’s major contributions to implementing the flexible response strategy were increased emphasis on special operations forces and airmobility. At Fort Knox, the Home of Armor, while doctrine writers continued to focus on conventional warfare in Europe and Korea, the Assistant Commandant of the Armor School tasked the Combat Developments Agency (the Armor community’s in-house think tank) to conduct a study on armor’s possible contributions to flexible response below the conventional warfare threshold. Brigadier General Frederick Boye, Jr., had just returned from a tour with the Military Assistance Advisory Group-Vietnam and understood the need to get ahead of the coming storm. He was a member of the so-called Howze Board (1962) that set the groundwork for the development of airmobility in the U.S. Army. General Boye undoubtedly wanted to secure a role for armor and cavalry in the transformation of the force. The resulting Combat Developments Agency study, published in 1962, had the propitious title:

“The Role of Armored Cavalry in Counterinsurgency Operations”.<sup>1</sup>

This study was ground-breaking, although most armorphiles (and virtually all other Army leaders) did not recognize it at the time. The study addressed doctrinal, organizational, and equipment issues, making insightful recommendations in each area. The study debunked the myth that



armor had no role to play in counterinsurgency operations, stating explicitly that “armored cavalry organizations [should] be recognized as capable of employment in counterinsurgency in Southeast Asia and similar areas.” The study concluded that the British experience in Malaya and the French experience in Indochina were not valid guides to the employment of armored forces in future conflict – due primarily to improvements in equipment and employment concepts. But to make a contribution, then-current armored cavalry organizational structures and doctrine needed to be changed.

Specifically, the study suggested that the aviation company of the armored cavalry regiment be replaced by an air cavalry troop, with a change in mission from command and control and liaison to reconnaissance and security. The light wheeled vehicles in the reconnaissance troops (ideal for border patrols along the Iron Curtain in Germany) needed to be upgraded to armor-protected, tracked vehicles – M-113 armored personnel carriers or M-114 armored reconnaissance vehicles (then still in development). Finally, the study recommended that additional armament be considered for the upgraded recon vehicles. The most significant doctrinal recommendation was that armored cavalry *could* become decisively engaged and still accomplish their mission.

This ‘in-house’ study did not receive widespread attention, and it was not taken seriously by the rest of the Army. But it did have several positive effects. Many of the equipment recommendations were adopted in armored units (including divisional and regimental armored cavalry squadrons), as well as by Army of the Republic of Vietnam (ARVN) armored cavalry units being advised by American armor officers and non-commissioned officers (NCOs).

Some of the doctrinal recommendations were incorporated almost verbatim into revised 17-series field manuals.<sup>2</sup> For example, the 1963 edition of *Field Manual 17-1, Armor Operations* contained but three pages on “operations against irregular (insurgent) forces”, whereas over 30 pages were dedicated to armor in “internal defense operations” in the 1966 edition. This latter FM was the one used by the lieutenants in the Armor Officers Basic Course and the captains in the Armor Officers Advanced Course, as well as by the Fort Knox enlisted Basic Training graduates who joined the Vietnam-bound armored units in 1965 and 1966.

But there were few, if any, counterinsurgency warfare advocates within the Armor community, and none in the other branches that foresaw a leading role for armor. Many ‘carved in stone’ doctrinal tenants remained in the cavalry lexicon – such as armored cavalry units should not become decisively engaged in combat and, in close terrain (such as jungles), infantry forces led, armor followed. Most importantly, Fort Knox continued to believe (and the 1962 study seemed to agree) that armor could only play a *supporting*, not a leading role, in counterinsurgency operations in the jungles of Southeast Asia. The Armor School was singularly unresponsive to requests from units in the field for either doctrinal guidance or lessons learned.

The Armor School never was comfortable with the encroachment by cavalry squadrons on the territory of armor battalions as suggested in the 1962 study. In fact, instructional material about counterinsurgency warfare wasn’t added to officer and NCO courses until at least three years after the first armored soldiers came ashore in Vietnam. Larry Gunderman was one of just a

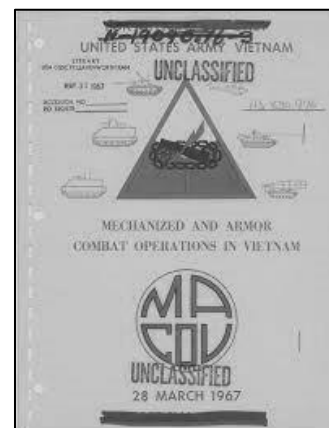
handful of Armor officers at the Infantry Officers Career Course at Fort Benning, Georgia, in 1965-66. He recalls that Fort Knox was “unlike Benning where we heard intelligence almost daily from the 1<sup>st</sup> Infantry Division and the 1<sup>st</sup> Air Cav [both fighting in South Vietnam]. And Ft. Knox had little or no pipeline information coming back to it.<sup>3</sup> I had [West Point] classmates in the Armor Career Course who came to Benning on a visit and soaked up info about Vietnam like sponges, because they were going there, but Knox was still fighting on the plains of Europe.”<sup>4</sup>

Those outside the Armor community were even more vociferous in their objections to giving any meaningful role to armored forces in counterinsurgency operations. Common wisdom held that guerrilla wars were fought by infantrymen. Sure, artillery had an important role to play, and airmobile operations were a game changer. But armor would not survive in a guerrilla war. Especially when those guerrillas were based in the rice paddies, jungles, and mountains of Southeast Asia.

Hanson Baldwin, the respected military analyst for the *New York Times*, published an article in September 1966. By that point in the war, there were almost 500 tanks and several thousand other armored vehicles in South Vietnam – about ten times more than one year previously. Baldwin asked senior officers in the Pentagon about this rapid increase in armored forces. He reported that these (mostly infantry) leaders “foresee no classic armored operations involving formations of tanks advancing through jungle areas that abound in the country.” One unnamed officer explained the rationale behind this conclusion: “Hunting Viet Cong with tanks is like chasing a fox with a tractor.”<sup>5</sup> At most, the armored vehicles were there to guard fire bases and protect convoys.

It didn’t take long for the tankers and armored cavalymen to prove these senior leaders wrong.

About the same time as Hanson Baldwin was writing his article, the Chief of Staff of the U.S. Army directed a team be formed “to determine whether a pattern for mechanized infantry and armor operations was emerging in RVN [Republic of Vietnam].”<sup>6</sup> A hand-picked group of over 100 Army officers, NCOs, and civilians spent the better part of two months on the ground in South Vietnam. They interviewed soldiers from General Westmoreland down to individual armored vehicle drivers. The unwritten objective of this study was to prove if armored forces (including mechanized infantry, armor, armored cavalry, and air cavalry) had a role to play in counterinsurgency operations – and if so, what that role was.



PERCENT GO— TRAFFICABILITY				
CORPS	DRY		WET	
	TANKS	APC	TANKS	APC
I	44 %	44 %	36 %	44 %
II	55 %	55 %	54 %	55 %
III	92 %	93 %	73 %	93 %
IV	61 %	87 %	0 %	87 %

Figure 21. Summary of the Goings by CTZ.

The MACOV Study group analyzed the terrain and weather in each of Vietnam’s four Corps Tactical Zones (I Corps along the Demilitarized Zone with North Vietnam, II Corps in the Central Highlands, III Corps around Saigon, and IV Corps in the Mekong Delta). Based on soil analysis and the experience of those who were operating in these areas, they developed trafficability maps for tanks and armored personnel carriers during the dry season – generally November to March – and the wet season – generally mid-May to September.

The 1962 Fort Knox Combat Developments Agency study assumed that the “nature of the terrain in this region [III Corps Tactical Zone] *precludes* most vehicular cross-country movement in the *majority of the region all the time* and permits limited movement in more or less open areas *only during the dry season* [emphasis added]”.<sup>7</sup> The 1967 MACOV study showed, however, that more than 90 percent of the III Corps area was trafficable to armored vehicles in the dry season – and more than 90 percent was still trafficable to all but tanks even in the wet season.<sup>8</sup> The common wisdom about the ability of armored vehicles to operate – let alone contribute to battlefield success – was clearly wrong.

Trafficability – especially in the rainy season – was always a limiting factor, but not nearly to the extent that the naysayers had predicted. Using a “go/no-go” formula, the MACOV study showed that armored vehicles could effectively operate on most battlefields in South Vietnam. But just ‘operating’ was not good enough. The results of the study conclusively proved that the combination of mobility, armored protection, and firepower was decisive in winning on those battlefields.

Despite the preconceived notions that influenced the type of Army forces deployed to Southeast Asia in 1965 and early 1966, and contrary to the French experience in the 1940s and 1950s, the MACOV Study demonstrated that much of South Vietnam *could* support armored operations in both the dry and wet seasons. The experts concluded that both doctrine and equipment were the major reasons for proving the preconceived notions and previous experiences as wrong. From a doctrinal perspective, the study supported the conclusion of the 1962 Fort Knox study – there was a role for armored forces in a counterinsurgency, and armored cavalry was the ideal tool to accomplish that mission. The MACOV study concluded:

“Armored cavalry units, particularly the squadrons of the [11<sup>th</sup>] armored cavalry regiment, are being increasingly employed in those roles previously assigned to armor and infantry combat maneuver battalions ... The extensive firepower and combat strength of the armored cavalry squadron have dictated its more effective use in the role of a well balanced maneuver battalion rather than in its traditional roles [reconnaissance, security, and economy of force].”<sup>9</sup>

The MACOV team demonstrated that tractors (armored vehicles) *could*, in fact, hunt foxes (Viet Cong and North Vietnamese Army units) successfully. Formations of tanks *were* advancing

through jungle areas with great effect. “Bustin’ jungle” with a tank or armored personnel carrier was hard on both equipment and crews alike, but armored cavalry units were seizing the initiative by tracking down and destroying Communist units, base camps, and supply caches in areas long-thought to be sanctuaries. The tanks and armored cavalry assault vehicles (ACAVs) could even go places that heliborne infantry could not. And once they got there, they had the armored protection and firepower to accomplish the mission.

Man-for-man, the M16 rifle-armed airmobile infantryman in Vietnam was seriously out-gunned by the AK47-armed guerrilla infantryman. Toe-to-toe, an American infantry company, when air assaulted into a jungle fight, was often outgunned by its usual adversary, a North Vietnamese Army (NVA) battalion. Light infantry was simply too light. But when a regimental armored cavalry troop – two recon platoons and a cross-attached tank platoon – ‘bumped into’ that same NVA battalion in its jungle base camp, the armored cavalry Troopers could quickly gain fire superiority. Take, for example, machine guns. A U.S. infantry company had 5, an NVA battalion about 10, and an armored cavalry recon troop almost 90. Because the armored cavalry troop was mounted, they could carry dramatically more ammunition than any dismounted force – even one dug-in in a base camp – could hope to have. A typical armored cavalry assault vehicle in the 11<sup>th</sup> Armored Cavalry Regiment carried a basic load of between 12,000 and 17,000 machine gun rounds.

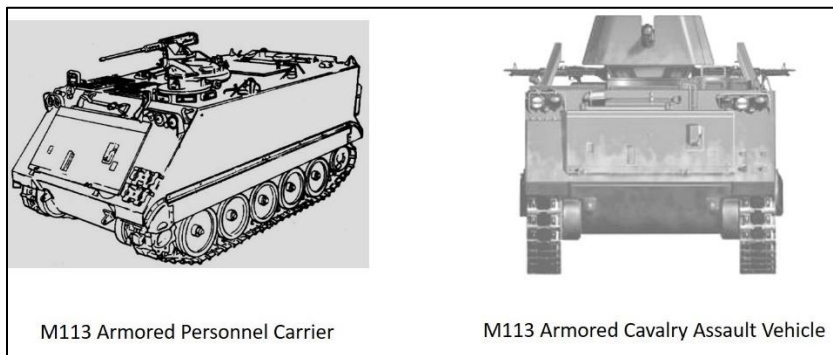
WEAPON	REGIMENTAL RECON TROOP*	US INFANTRY COMPANY	NVA INFANTRY BATTALION
Rifle	83 M16 (5.56mm)	161 M16 (5.56mm)	~400 AK-47 (7.62mm)
Pistol	18 M1911 (.45 caliber)	15 M1911 (.45 caliber)	20 (9mm)
Grenade Launcher	19 M79	24 M79	40 RPG2/7
Machine gun 7.62mm	61 M60/M73	5 M60	3-5 RPD
Machine gun .50 caliber	27 M2	None	3-5 .51 caliber
Recoilless rifle	None	3 (90mm)	1-3 (.57/.75mm)
Mortar	2 (.81mm/4.2")	3 (81mm)	10-15 (60mm)
Tank main gun	5 (90mm) >1969 6 (152mm)	None	None

*\* Cross-attached with a tank platoon*

The M113 armored personnel carrier was the standard U.S. Army carrier for mechanized infantry in the mid-1960s. It was designed to carry a 10-man infantry squad on a conventional battlefield. At the same time, the M114 armored reconnaissance vehicle was the standard U.S. Army recon vehicle for armored cavalry scouts. But the Army quickly realized that the M114 was not capable of operating in South Vietnam (underpowered and too steep a front slope for crossing rice paddy

dikes). Therefore, armored cavalry units being sent to Southeast Asia in 1966 turned in their M114s and drew unmodified M113s.

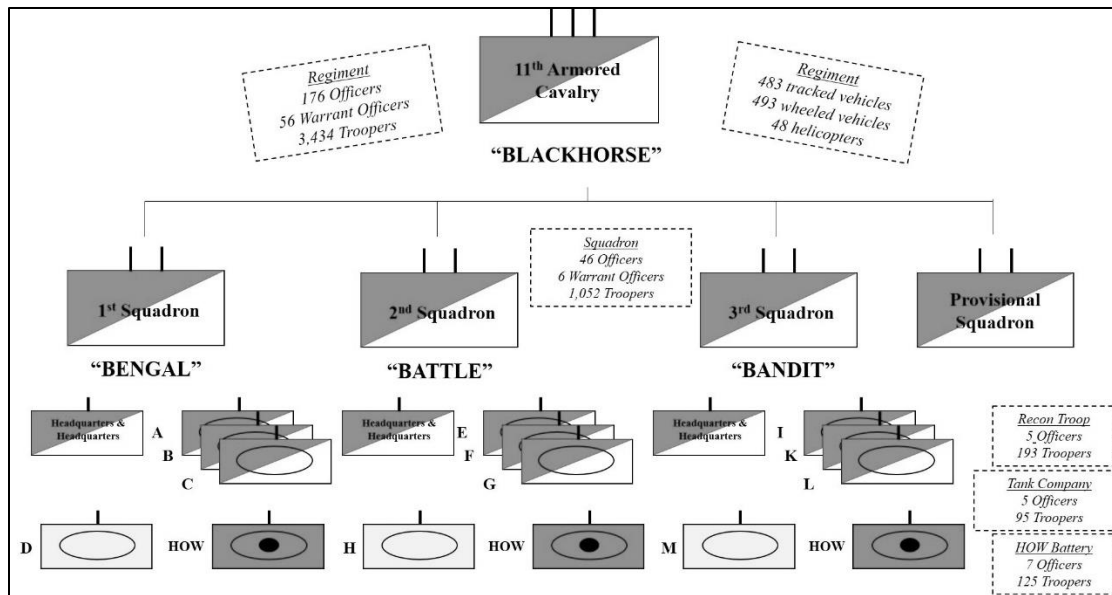
Before it deployed to Vietnam in September 1966, the 11<sup>th</sup> Armored Cavalry Regiment (along with the FMC Corporation that manufactured the M113) redesigned the vehicle into an armored cavalry assault vehicle. The ACAV added armored protection around the track commander's caliber .50 machine gun, and placed two M60, 7.62mm machine guns behind armored shields on each side of the crew compartment. The 5<sup>th</sup> crewmember was a grenadier, armed with an M79 grenade launcher. After September 1966, all other U.S. Army armored cavalry squadrons modified their M113s to the ACAV variant.



The ACAV was a true fighting vehicle. It provided armored protection against small arms fire, sufficient firepower to quickly gain fire superiority against infantry forces (even when dug-in), and the mobility to go through jungles and across rice paddies. As the MACOV study noted: “Current doctrine treats the armored personnel carrier as a means of transporting troops rather than as a fighting vehicle ... The M113 armored personnel carrier [ACAV] is being employed by U.S. armor and mechanized infantry units in a tank-like role”.<sup>10</sup>

By design, U.S. Army armored cavalry units are organized and equipped as combined-arms teams. As a 23-year-old armored cavalry platoon leader in Vietnam in 1969-70, I commanded a 55-man platoon with 10 armored vehicles that included scouts, tanks, infantry, and a mortar. Every armored cavalry leader was taught, from the first day of his first command, to think in combined arms terms.

The 11<sup>th</sup> Armored Cavalry Regiment – the Blackhorse Regiment – was the only armored cavalry regiment to serve in Vietnam. It was deployed in September 1966 and returned to the United States in April 1972. In my opinion, it was the ideal armored force for the Vietnam War. This is how the Blackhorse was organized in Vietnam.



Each of the Regiment's armored cavalry squadrons had ground recon scouts, tanks, infantry, artillery, mortars, and scout helicopters organic to their organization. Air cavalry helicopters and armored engineers rounded out the Regiment's combat capabilities. Every vehicle and aircraft in the Regiment had a radio, so they could be called upon individually or collectively and gathered quickly.

This Regiment was the most lethal brigade-sized force in Vietnam. It could find trouble, take care of that trouble, and then cause even more trouble for the enemy on its own.

All of this combat capability and power was under the command of a single colonel. The Regimental Commander – Blackhorse 6 was his radio call sign – could muster a combined arms team where and when he wanted. He didn't have to ask another colonel to borrow some helicopters or beg for artillery fire support. The Regiment was typically assigned a tactical area of responsibility (TAOR), and, depending on the situation (enemy, terrain, weather, etc.), Blackhorse 6 would assign his squadron commanders their own areas. Whenever feasible, the squadrons operated within mutually supporting distance – allowing them to reinforce whichever unit was first to make significant contact with the enemy.

The unofficial motto of the 11<sup>th</sup> Cavalry in Vietnam was: "Find the bastards...then pile on." Unlike virtually all of his fellow brigade commanders in Vietnam, Blackhorse 6 had all of the assets under his command to both find the bastards and to pile-on.





Typically, an aero- or ground scout was the first Blackhorse Trooper to find the enemy. One radio call brought the first pile-on forces – usually more scouts, attack helicopters, and artillery. The next forces to pile on were the ACAVs and tanks of one or more of the squadrons. Each squadron had more than 100 combat vehicles to pile on the enemy. Tactical air strikes followed quickly thereafter.

There were no enemy forces available to Hanoi that could stand up to all that firepower. The key ingredients to success of this tactic were: armored protection to survive the initial contact with the enemy, mobility to bring additional forces to bear, and sufficient firepower to overwhelm the enemy. All of these ingredients were under the control of a single commander. No light infantry brigade in Vietnam could do the same thing.

Under the leadership of an old horse cavalryman, General Creighton “Abe” Abrams, armored forces led the U.S. Army, Vietnam in wresting the tactical and operational initiative from Hanoi in 1968 and thereafter denying the Communist forces access to the South Vietnamese population and resources – the ultimate objective of any counterinsurgencies. Unlike the infantry-heavy force that deployed to South Vietnam in 1965, these armored forces were part of a *combined arms team*.

The lessons learned from the employment of armored forces to help defeat the insurgency in South Vietnam from 1966 to 1972 are as cogent today as they were half a century ago.

- Armored protection saves soldiers’ lives
- Heavy firepower brings fire superiority
- Mobility allows for quick response
- Radios on all vehicles enhances command & control
- Unity of command is critical
- Combined-arms team is essential

Armored vehicles – even those like the lightly armored M113 ACAV – provide sufficient protection for the crews to survive the initial contact with the enemy. The armored unit then gains fire superiority with their multiple machine guns and tank main guns. The inherent mobility of tracked armored vehicles ensues that reaction forces quickly arrive to overwhelm the enemy. Each vehicle must have a radio to facilitate command and control before, during, and after a fight. Having all of the assets necessary to counter an insurgency under the command of a single unified commander is critical to success. This commander shouldn’t have to ask another unit for support in the middle of a fight.

Call it whatever name you want to – combined arms brigade, heavy infantry brigade, or Star Wars brigade – but a unit designed like the armored cavalry regiment that proved itself in the jungles

of Vietnam and the Fulda Gap in Germany is the ideal combined arms formation for a counterinsurgency. Armored forces are an integral element in most armies' combined arms teams. Whether in Saigon, Mogadishu, or Kabul, they can play a vital role in achieving our national security interests in non-conventional and conventional wars.

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<sup>1</sup> *The Role of Armored Cavalry in Counterinsurgent Operations*, U.S. Army Armor Center Combat Developments Agency, Ft. Knox, KY, 1962.

<sup>2</sup> All armor-related field manuals start with 17 (e.g., *FM 17-1 Armor Operations*, *FM 17-95 The Armored Cavalry Regiment*, etc.).

<sup>3</sup> The Blackhorse Regiment was a key factor in changing this situation – albeit three-plus decades later. The Regiment at the National Training Center has a “direct feed from [the combat] theater now. Things that’ll happen on a Tuesday will be reflected on a Thursday during a unit’s rotation. It’s almost a real-time feed of lessons learned” (“Operational Leadership Experiences Project: Interview with Major Matt Tolle”, Combat Studies Institute, Fort Leavenworth, Kansas, 23 January 2006, p. 9).

<sup>4</sup> Gunderman, Major General (Ret) George, email to author, 31 March 2014.

<sup>5</sup> Baldwin, Hanson, *St. Louis Post Dispatch*, “Light Infantry Brigade Enters Vietnam”, September 21, 1966, p. 1C.

<sup>6</sup> *Mechanized and Armor Combat Operations in Vietnam (MACOV)* (hereafter, MACOV), Headquarters, United States Army Vietnam, 28 March 1967, p. I.

<sup>7</sup> *The Role of Armored Cavalry in Counterinsurgent Operations*, U.S. Army Armor Center Combat Developments Agency, Ft. Knox, KY, 1962, p. C-3-1.

<sup>8</sup> MACOV, Headquarters, United States Army Vietnam, 28 March 1967, p. 48.

<sup>9</sup> MACOV, Headquarters, United States Army Vietnam, 28 March 1967, p. 54.

<sup>10</sup> MACOV, Headquarters, United States Army Vietnam, 28 March 1967, pp. 53-54.