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*This also appeared in Army under the title, "The Case for Armor"*

# ARMOR IN VIETNAM

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## INTRODUCTION

"You can't use Armor in Vietnam!" This often-heard pronouncement has been widely believed, especially in view of the obvious difficulty of Vietnamese terrain, the elusive nature of the insurgent enemy, and the tragic failure of French armor in the area. It has, in fact, been so widely believed as to severely inhibit serious thought on the subject. But for all its dogmatic strength and apparent credibility, the assertion simply is not true. It is not even true that you can't use medium tanks in Vietnam, which is what most people really mean, although medium tanks are in fact seriously limited and probably could not measure up to a cost-

effectiveness study except in the Central Plateau.

## NEED FOR ARMOR

But armor is not the medium tank, or any other specific machine. It is a concept: the concept of mobility, firepower, and shock effect on the battlefield. And the need for mobility, firepower, and shock effect is an inherent part of

warfare which does not depend on either the century or the geographical area in which the war is fought. This need has been filled in various times and places by light, swift horsemen; by heavily armed and armored knights; by chariots; by elephants; and, more recently, by a wide variety of armored vehicles. The need exists in Vietnam just as urgently as it has ever existed elsewhere. The question is how best to meet the need, for if it is not met there will be needless Infantry casualties. Let me make this point very clear. My purpose in this article is not to glorify armor but to explain how armor can and does contribute to the overall effort—and how it could contribute still further—for

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the simple reason that every time armor could contribute but does not Infantrymen die without need.

### TERRAIN CONSIDERATIONS

Vietnam is divided into four distinct terrain areas—the Delta, the Mountains, the Coastal Plain, and the Central Plateau—each with different effects on vehicular mobility. (Figure 1)

*The Delta.* There are two Deltas, the old and the new. To most, the term connotes the new Delta from the Saigon River to the southern tip of the country. This heavily populated rice bowl is a vast, utterly flat region of paddies traversed by a few roads and crisscrossed by a dense network of deep, steep-banked canals and broad tidal rivers. It contains the desolate Plain of Reeds and is punctuated by the Seven Mountains near the southwestern tip of Cambodia, the U Minh Forests near the Gulf of Siam, and dense mangrove swamps along the coast of the South China Sea. Each of these is, for different reasons, a poor place for offensive military operations and is, therefore, a VC base area. The old Delta generally north of Saigon is, by contrast, somewhat higher, devoid of canals and major rivers, and covered by large forests and rubber plantations. It contains the notorious War Zones C and D.

*The Mountains.* The northern two-thirds of the country consists of the rugged, jungle-covered, sparsely populated Annamite Mountains. Land communications are limited to a very few inferior and easily interdicted roads and trails and to the stream lines along the narrow floors of deep valleys. These latter are occasionally interrupted by sheer waterfalls impassable to vehicles. Vehicular movement off of the very scarce roads and trails is nearly impossible, and even foot movement is exceedingly difficult. The Mountains offer refuge to the VC.

*The Coastal Plains.* The Coastal Plain is discontinuous, being seg-

mented by mountain spurs reaching to the sea. Small segments surround Phan Thiet, Phan Rang, Nha Trang, Tuy Hoa, and Qui Nhon. Continuing northward, major segments extend from Quang Ngai to Da Nang and from below Hue north across the 17th Parallel. The Plain is heavily populated and is tied together by Highway 1 and a single-track, frequently interdicted railroad, from the coast to its maximum in-

land depth of about twenty miles it consists of a narrow sandy strip backed up by rice paddies and separated from the mountains in most instances by a single range of open hills called the Piedmont. The segments are further compartmented by several unfordable rivers.

*The Central Plateau.* The Central Plateau extends along the Cambodian border from Kontum through Pleiku to Ban-Me-Thuot.

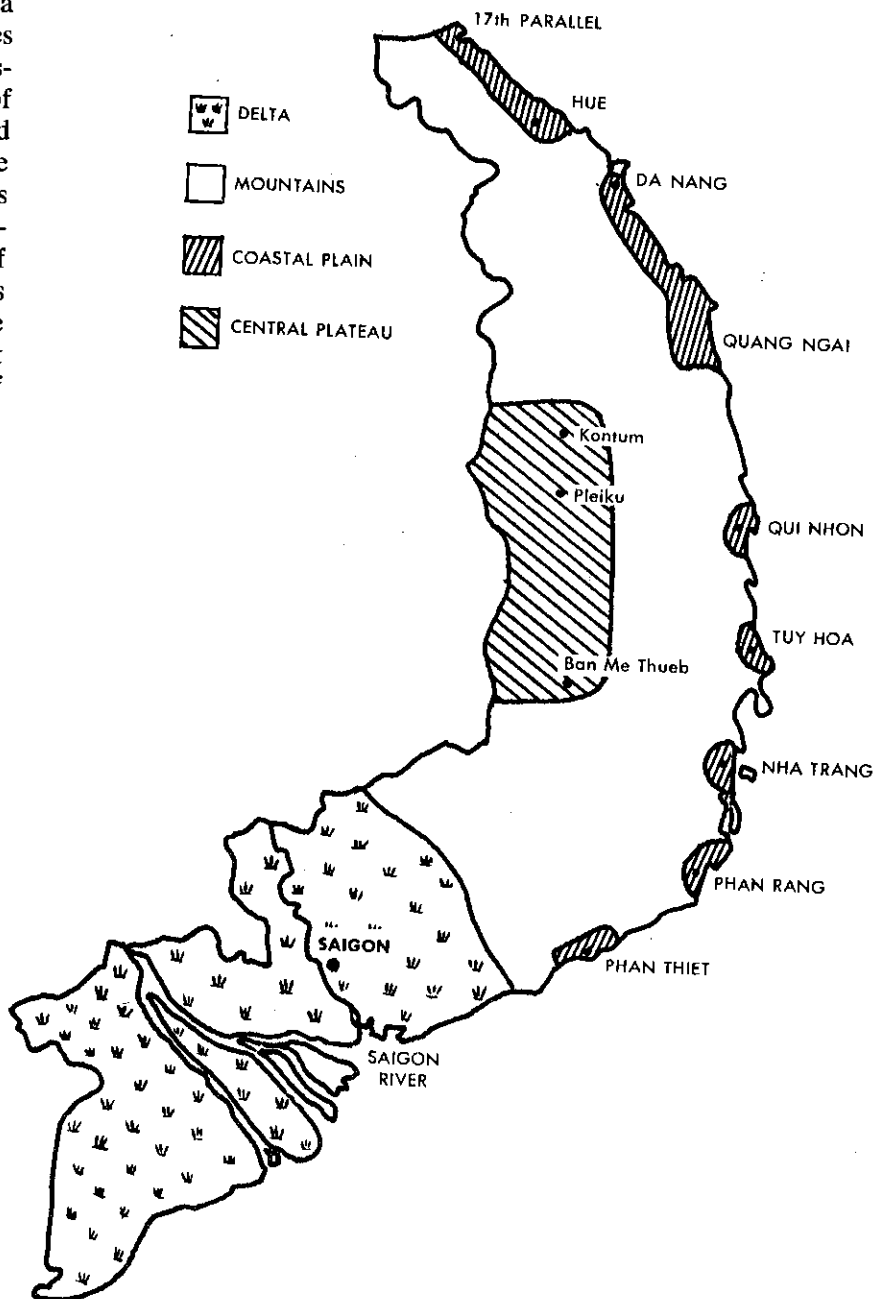


Figure 1.

It is thinly populated and lacks significant rivers. It is covered by vast forests, especially in the north, and savannah areas of tall grass. Although roads are scarce, cross-country mobility outside the forests is excellent.

#### EFFECTS ON COMBAT VEHICLES

**Armored Cars.** Armored cars are roadbound everywhere except on the Central Plateau and, during the dry season, in certain areas of the Coastal Plain. In these areas they are useful as relief forces for small outposts and for limited offensive combat. Their primary—and vital—mission, however, is highway security and convoy escort. They are invaluable in this role and, when present, discourage all but the largest and best organized of ambushes. US forces have no armored cars. The Vietnamese have three troops plus separate platoons organic to the

Sectors (Provinces). Many more are needed. Because of the post-World War II hiatus in American armored car development, the V100 "Commando" appears to be the only reasonably available, modern US car for the purpose.

**Tanks.** As previously mentioned, medium tanks are severely restricted in Vietnam. They are able to negotiate coastal sand, Piedmont hills, the Central Plateau, and—surprising to some—rice paddies without difficulty. When they are able to bring the Cong to engagement, the results are terrible to behold. They have been, therefore, useful adjuncts to the defense of such vital areas as Da Nang and have even enjoyed some limited offensive success in both the 3rd Marine Division and 1st Infantry Division sectors. We expect considerable benefits from a recently arrived battalion in the Central Plateau. The nemesis of

the tank, however, is the unfordable water obstacle. Current model tanks cannot swim and existing highway bridges are more often than not too weak or too narrow to support them. Engineer tactical bridging is truck-mounted and, therefore, useless away from the highways. AVLB's, being wider than medium tanks, cause more problems than they solve during on-highway movements.

Light tanks suffer the same limitations as mediums, but being lighter and narrower they are able to make better use of existing bridges. This allows them access to larger and more widespread operational areas and increases their opportunities to engage VC. The 76mm gun of the M41A3 is no less deadly than the M48's 90mm against troops and field fortifications and, surprisingly, the M41 stands up every bit as well as



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the M48 against VC's shaped-charge type anti-tank weapons. Light tanks are, therefore, markedly more useful than mediums in the Coastal Plain and the northern or "old" portion of the Delta and are just as good as mediums in the Central Plateau. Neither type can function in the Mountains or in the "new" Delta. It is one of the minor tragedies of our time that the US Army phased out the M41 without producing a timely replacement. The result is that US forces in Vietnam have no light tanks while the Vietnamese have only five troops of M41's. What is needed, of course, is a semi-amphibious tank such as the General Sheridan which would not be stopped by rivers and canals.

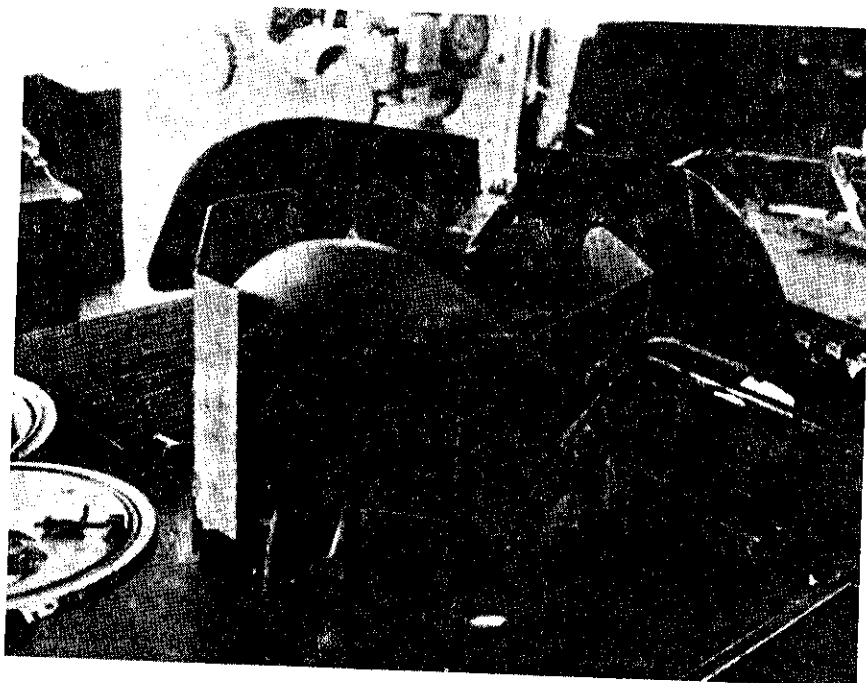


Figure 2.

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#### *Armored Personnel Carriers.*

The M113 APC is the backbone of Armor in Vietnam for one simple and overriding reason—it can move! In the summer of 1962, two troops of M113's were introduced experimentally into the new portion of the Delta. They were successful beyond all expectations. The two troops were able to negotiate the Delta's rivers and canals and, between 11 June and 30 September 1962, killed a total of 502 VC and captured 184 more while losing only 4 of their own men killed and 9 wounded. The M113 force has, therefore, been expanded to its present strength of one US mechanized battalion and 24 Vietnamese troops. And more could be used.

M113's are found everywhere in Vietnam except the jungle-covered mountains. They work hand-in-glove with the infantry but not as personnel carriers. Rather, mobility has proven much more important than firepower in the face of this particular combination of terrain and enemy, and the M113 has become the main battle tank of Vietnam. Firepower, of course, is not to be ignored, and the M113 has been locally modified by the addition

of gunshields and hatch armor for the protection of caliber .50 gunners (Figure 2) and by mounting a caliber .30 MG on each side of the cargo hatch. Three vehicles in each troop mount 81mm mortars and two carry 57mm recoilless rifles in lieu of one of the machineguns. This adds up to such an impressive array of firepower that Cong shows great reluctance to engage even a single troop of M113's with less than a full battalion well dug in along some anti-tank obstacle and heavily reinforced with recoilless rifles, bazookas, and the like.

Cynics discounted the M113's early success and predicted it would come to an end as soon as VC acquired anti-tank weapons. This has not proven to be the case. VC has long since distributed 57 and 75 mm recoilless rifles, 3.5" rocket launchers, and 82mm Chinese "Panzerfausts" to battalion level in considerable quantity—as many, in fact, as he can carry and supply with ammunition so long as he remains tied to foot mobility. The result has been the replacement of "cowboy and indian" antics by

sound armor tactics while Vietnamese armor has piled up an impressive 15.8 to 1 kill ratio from 11 June 1962 through 31 December 1965, (6275 VC confirmed dead—the real total is doubtless much higher—against 397 friendly killed in action). No armored vehicle can ever be invulnerable, but the M113 is demonstrably better protection than a fatigue shirt for its crew. True, a goodly number are penetrated from time to time, but less than one out of seven penetrated vehicles is destroyed and the eight-to-twelve man crews suffer only about .8 personnel losses per penetration.

*Command and Reconnaissance Vehicles.* The familiar ¼ ton truck is entirely roadbound in Vietnam and is, therefore, of little or no use for CandR work. Quantities of M114 CandR vehicles were introduced shortly after the M113's but, unfortunately, fell flat on their faces. (Almost literally—the major problem was that their front slopes protruded beyond the track and dug into dikes and canal banks before the track could get

a foothold, thereby preventing the M114's exiting from paddies or canals.) There is at present no satisfactory CandR vehicle in Vietnam. It would be interesting to see what the new M113 $\frac{1}{2}$ —a scaled down M113 with a three man crew—could do.

### TACTICAL EMPLOYMENT

*General.* At first glance, Armor tactics in Vietnam may seem highly unorthodox. If you will consider what has been said about the various vehicles, however, you will see that the APC has simply assumed the orthodox role of the main battle tank. By the same token, the light tank has, in those areas where it can operate, taken on the role of the main battle tank supporting the actions of the M-113 by heavy firepower and, where possible, adding weight to the assault. With these substitutions in mind, standard doctrine becomes applicable. Armor in Vietnam, as presently equipped, is capable of the full range of normal armor operations. It performs best, however, when employed on offensive missions in close cooperation with Infantry. The ultimate tactical objective of the Vietnamese trooper is to physically overrun the enemy and crush him beneath his tracks. All of his efforts are directed to this end, and the psychological—or "shock"—effect on the enemy of this armor equivalent to "the spirit of the Bayonet" is very great indeed.

*Reconnaissance.* In close country against an enemy who hides or flees rather than fight in the face of odds, reconnaissance becomes a detailed search by large numbers of dismounted personnel for which armor is not especially well suited. Armored Cavalry or armor with attached Infantry can, of course, search relatively open areas, but the likelihood of finding significant enemy forces in such areas is slight. In general, then, infantry reconnoiters for armor in Vietnam.

*Strike Force.* The usual Vietnamese "search and destroy" operation finds an infantry regiment deployed as skirmishers to conduct a detailed, hole-by-hole and bush-by-bush search with an armor troop held well forward in reserve. When a significant enemy is found, however, it is unlikely that the deployed friendly infantry will have a preponderance of force at the point of contact. The armor troop is, therefore, committed to the assault to destroy the enemy.

*Encircling Force.* As an alternative, an armor troop or squadron may be dispatched to encircle the area to be searched and block escape therefrom. If the enemy attempts to flee, he is destroyed by fire. If he stands his ground, the armor is committed as before—only this time from the rear—to the assault.

*Sweep.* The armor "sweep" is used in the absence of firm intelligence or as an economy of force measure in hostile terrain. It is also useful to check on security and "show the flag" in presumably friendly areas. Essentially a reconnaissance in force, this mission must be undertaken only by elements sufficiently powerful to take care of themselves if significant enemy is found—at least a full troop with attached rifle company and preferably a squadron or task force. The sweeping armor may find the enemy, in which case it attacks and destroys him. More likely, the enemy will hide. In this case he is not doing what he had intended to do, and the sweep will have a marked "spoiling" effect. By continuing to move unpredictably about, armor can dominate a very large area, keeping the enemy off balance and foiling his plans for extended periods. As a by-product of such operations, civilian morale is greatly enhanced by the reassuring sight of powerful government forces.

*Area Security.* Even when an area has been cleared, the threat

of VC raids from outside the area remains. Local militia guard hamlets, bridges, and the like, but they must be supported by a relief force strong enough to destroy the raiders and mobile enough to arrive in time. Armor is ideal for such service. With good communications, ingenuity, and freedom to act, a troop can adequately cover an Infantry regimental sector once the VC main-force units have been cleared out. When the enemy has finally been driven to the mountains where armor cannot follow him, this will become armor's final—and perhaps most vital—contribution. Each troop so employed frees an entire regiment of regular infantry to pursue the enemy and complete his destruction in the mountains.

### CONCLUSIONS

Vietnam may not be an ideal locale for armored divisions, but that does not mean that armor cannot make valuable contributions to the overall effort. Properly equipped and employed, armor can minimize friendly infantry casualties while insuring the destruction of the enemy in the Delta, Coastal Plain, and Plateau. Once these are won, armor can hold them secure while the Infantry thus freed finishes the job in the mountains. To fail to capitalize on armor's potential is to condemn infantrymen needlessly to death. To fully develop its potential, armor in Vietnam needs:

1. More M113's to kill more VC.
2. More light tanks on preferably, a new, semi-amphibious tank to kill VC more efficiently.
3. More armored cars to secure more vital highways.
4. Last and by far most important—armor needs more UNDERSTANDING of its capabilities so that its units will be more fully and appropriately employed to help the Infantry by closing with and destroying the enemy!