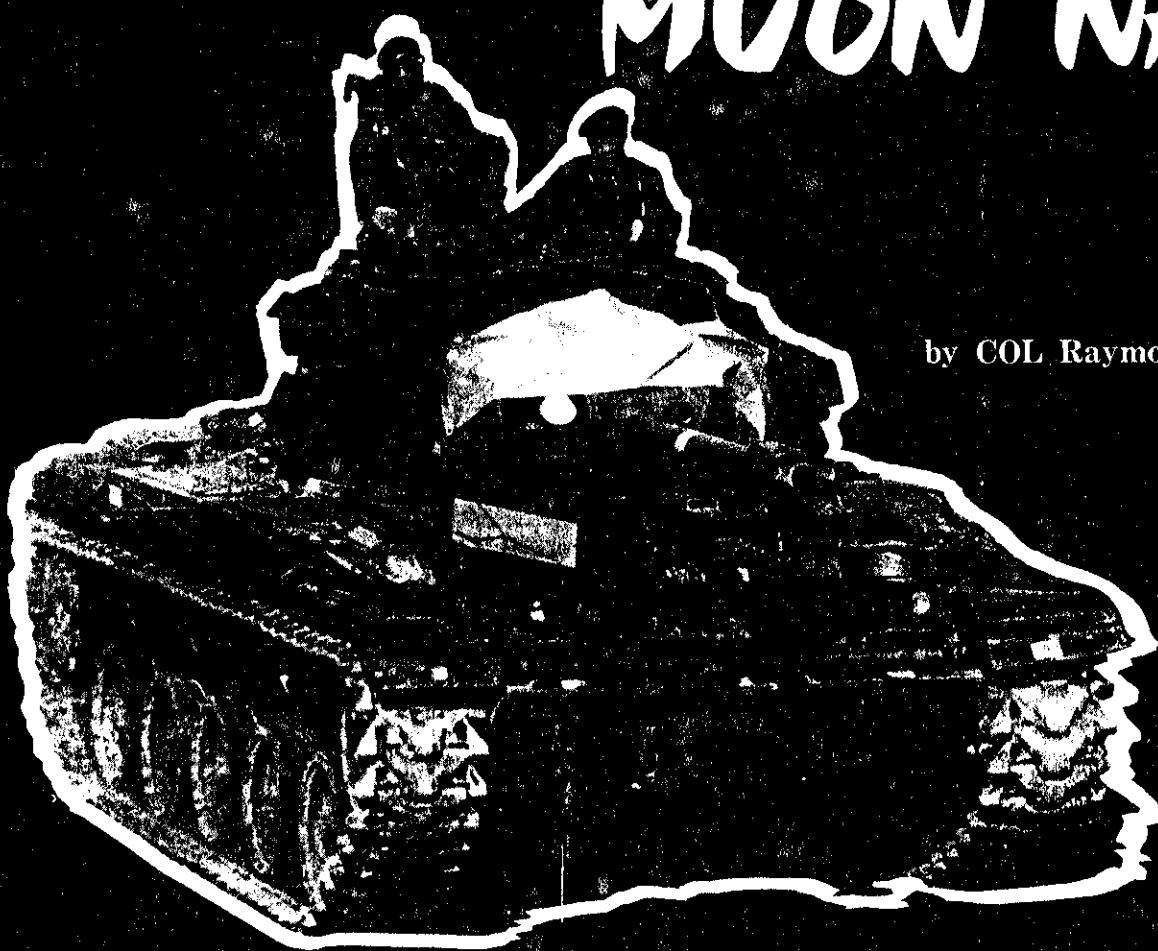


KY BINH VIET NAM MUON NAM!



by COL Raymond R. Battreall

We may be certain that analysts will sift lessons for our future guidance from the experiences of US units in the Vietnamese War. But similar attention must be paid, particularly in light of the "Nixon Doctrine," to our Vietnamese allies. This article offers an overview of the development of ARVN Armor and a few of the more obvious lessons to be derived therefrom.

PROLOGUE — "But everyone knows . . ."

"But everyone knows you can't use armor in a place like Vietnam!" This cry was heard so often through the mid-sixties that it came to be accepted almost as an article of faith. This perfidious notion initially denied the infantry the armor support they needed. It springs largely from three sources:

- Misunderstanding of the role of armor. Given the magnificent Israeli performances of 1967 and 1973, very few would deny armor a place in large-scale, "sophisticated" warfare in Europe, North Africa and North America where it is easy to

envision Patton-esque maneuvers by armored corps and armies. It is in regions where the possibilities are less flamboyant that people say you can't use armor. This reflects an unduly narrow concept. Armor is not, of course, an all-or-nothing proposition; that it doesn't have to be the dominant element to be useful is amply demonstrated in the Pacific campaigns of World War II, Korea and rather considerable successes in "Nam."

- Equating "armor" to "tanks." Even within the branch we sometimes slip into this easy trap, especially since the single word is used somewhat schizophrenically to describe the protective metal itself, the branch, and the much broader *concept* encompassing all of the combined arms as a team using mounted mobility to move heavy firepower in such a way as to produce shock. Now the motive power for this team needn't be any one specific machine. Depending on the state of technology and the particular terrain and enemy involved, it could be

horses or elephants; any of dozens of different tanks, armored personnel carriers or armored cars; helicopters, flying saucers, or Buck Rogers belts. The only essential requirement is for *some* mount which in the specific environment at hand gives a mobility and firepower advantage over the foot soldier. It is in this broader sense that we should think of armor in Vietnam or anywhere else.

• Lack of appreciation of armored vehicle mobility. Armor has never quite lived down the World War I image of a mechanical behemoth waddling clumsily over barbed wire and trenches belching destruction while shells bounce harmlessly off its sides. Armored vehicles have long had vastly improved mobility and agility, yet non-tankers persist in assuming that they simply can't function in less-than-ideal terrain. This got us into trouble in the Ardennes twice in one war. It caused us to initially deploy tankless infantry to Korea to be chewed up by North Korean *T34s*. And still today, after literally tens of thousands of demonstrations to the contrary, some stoutly insist that tanks cannot traverse rice paddies.

Part and parcel of this World War I image is the false idea that armored vehicles are supposed to be invulnerable. Hence the cry that "the tank has been driven from the battlefield" is repeated every time someone invents a new gun, rocket launcher or missile capable of penetrating tank armor. Few reflect that *men* have been penetrable since the invention of the stone axe, yet they remain mighty useful on the battlefield. Of course, we expect our armor to give us a marked survivability advantage — and it does. Armor today must be wary of direct-fire weapons from the 57mm recoilless rifle up, but it needn't be too concerned about rifles, machine guns and field artillery. This is a distinct advantage.

THE FRENCH BACKGROUND

Americans in Vietnam were strongly influenced at first by French experience with armor, which hadn't been too good. This greatly reinforced the negative attitude just described. "You can't use armor in Vietnam — look what happened to the French" sounded so like a current lesson well grounded in actual experience that it was accepted for a time even at Fort Knox. But what caused French failure?

Returning to Indochina after World War II, the French brought with them US *M24* tanks, *M8* armored cars and *M3* halftracks. None of these was much of a mudder, and the halftracks and armored

cars were especially deficient in cross-country mobility. Nevertheless, they were initially highly successful. In classic exploitation fashion, columns roared along the roads reducing one village after another to obedience. The importance of the hinterlands was not immediately obvious since large-scale guerrilla warfare had not yet erupted.

When the full force of the Viet Minh developed later, the French response was theoretically correct: hold vital points with minimum force and concentrate maximum power into mobile reserves. But two things were wrong: the total French force was too small for the number of places that needed securing so that not enough remained for mobile reserves; and in forming their *Groupments Mobile* (GM) they were fettered by antique equipment and failed to differentiate between *road* mobility and *battlefield* mobility. Their dominant element was truck-mounted infantry; artillery was usually towed, and the armor element of GM seldom, if ever, exceeded a single company of obsolete and worn out *M24s*. The GMs' mounted mobility, then, was almost entirely roadbound. Though they displayed conspicuous gallantry and achieved numerous successes, the GMs were inherently ambush-prone and suffered accordingly as they dashed continually from threatened point to threatened point. The lesson here is that armor, to be effective, must be able to get off the roads.

EARLY INDEPENDENCE

Vietnamese Armor, consisting under the French of the 3d Reconnaissance Squadron and four separate recon troops, retained its equipment in 1954. The 3d, stationed in the North, voluntarily moved south as a unit — at great personal sacrifice to many of its members — and placed itself at the service of Saigon in opposition to Communism. Unfortunately, the combination of decrepit equipment and negative thinking engendered by the French defeat limited the force to static security, convoy escort, and palace guard functions where they came to be known, only half jokingly, as "coup troops." Even so, a 1956 reorganization produced four armored cavalry squadrons — each with one *M24* tank troop and two reconnaissance troops (*M8* and *M3*).

TECHNOLOGICAL BREAKTHROUGH

On 11 June 1962 two experimental mechanized rifle companies of fifteen *M113* APCs each were introduced to the Mekong Delta. The results were



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at the least startling: the *M113s* were *not* roadbound even in the Delta's soggy paddies and maze of canals. Nor were they restricted to the transport of riflemen. It was found that their machine gun firepower could be combined with their armor protection and mobility to produce shock in the enemy. Soon they were being used in the mounted assault role normally associated with tanks in more favorable terrain. By 30 September they had traded four friendly dead and nine wounded for 502 counted Vietcong bodies and 184 prisoners. The companies were redesignated "troops", and armor had become effective for off-road offensive combat in Vietnam for the first time. Six additional *M113* troops and four of *M114* command and reconnaissance vehicles were authorized.

Sadly, the *M114s* proved an expensive blunder. They had been assumed to be as mobile as the *M113s*, but this was not the case — primarily because their protruding front slopes rammed the paddy dikes and prevented their tracks from climbing them. From this experience we gained a new design term, "aggressive track," and the lesson never to commit operational quantities of new machines without adequate testing.

BUILDUP

New organizational mixes, tactics and operating techniques were combat-tested throughout the country during 1963. The 5th and 6th Armored Cavalry Squadrons were formed and operational by 15 December. The *M114s* were withdrawn in early 1964, the four troops reequipped with *M113s*, and two additional mechanized rifle troops activated to bring the total to 14 such troops by 15 October. During 1965 the old *M24* tanks were replaced by the more mobile and powerful *M41A3*; an experimental self-propelled 4.2-inch mortar platoon (*M106*) joined the 2d Squadron; the *M113* armored personnel carriers were converted to Armored Cavalry Assault Vehicles (ACAV) by the addition of

side-mounted machine guns, gunshields and hatch armor; and the 7th and 8th Squadrons joined the force. By year's end the eight cavalry squadrons disposed of five tank troops (*M41A3*), twenty-one mechanized rifle troops (*M113*), three armored car troops (*M8*), and the mortar platoon (*M106*). Two more squadrons, the 9th and 10th, became operational in 1966, and 1967 saw a platoon of *V100 Commando* armored cars in each squadron replace the separate troops of the old *M8*.

Interestingly, the worn-out old *M24* tanks continued to serve even after their replacement by the *M41*. They were positioned as 75mm pillboxes at fixed installations (bridges, depots, airfields) throughout the country where they remain to this day manned by non-armor crews. The two *M24* "flights" at Tan Son Nhut are probably the world's only Air Force tanks.

Entering combat in July 1965, the *M41A3* proved highly battleworthy and an excellent cross-country performer, being hindered only by unfordable streams and canals. Frustratingly, no spare parts were issued until seven months later. That ARVN mechanics by book and by crook somehow kept 15 of 17 running in the average troop may not have been entirely fortunate, for we were to repeat this logistical error at much higher cost in 1971-2 with the *M48A3*. Two lessons appear here:

- Americans have no monopoly on mechanical ingenuity; but
- even the most inventive mechanic cannot maintain a truly sophisticated system without tools and parts.

TET — 1968

The enemy's treacherous attack during the sacred Tet holidays of 1968 achieved surprise and gained initial success. The armor force came of age and conclusively demonstrated its value in this dire emergency when its ten squadrons rode to the sound of the guns to take a significant part in saving

virtually every major town and city in the country. In the fierce struggle, 400 troopers gave their lives and 1,471 were wounded; but their valor, mobility and withering firepower accounted for 9,832 enemy dead and 1,561 prisoners. This achievement gave new impetus to expansion plans. Mechanized rifle troops were reorganized, strengthened and renamed Armored Cavalry Assault Troops to better describe their actual combat role and formally recognize the *M113's* *normal* employment as a tank substitute rather than a squad carrier in the specific environment then existing. The 11th and 12th Squadrons joined the force during 1968 followed closely by the 14th through 18th in 1969. Also in 1969 the first two armor brigades, the IV and I, were born to fill the need recognized during the Tet for a flexible and responsive tactical headquarters to control whatever mixture of combined-arms forces might be required by changing situations.

CROSS-BORDER

When the decision was made in the Spring of 1970 to challenge the enemy in his Cambodian sanctuaries, massed armor spearheaded operations reminiscent of the European Theater of World War II. Flying columns moved cross-country at speeds up to 30 kilometers per hour to destroy the enemy and seize vast quantities of his equipment. Armor commanders learned new lessons about sustained operations far from base and surprised even themselves by their ability to solve new problems and control large forces with the flexibility demanded by the ever-changing situation.

The Armor Brigade concept was proven sound, and III Armor Brigade was deployed eight months ahead of schedule to provide this valuable new capability to III Corps. Studies of these operations resulted in organizational changes to further strengthen the assault troops, improve maintenance and resupply capabilities and provide more self-propelled mortar firepower. Meeting the demand for higher levels of leadership, the ARVN Armor School conducted the first Officers' Advanced Course ever presented in Vietnam during the summer of 1970.

Armor again led the way, this time in much less favorable terrain, when the Ho Chi Minh Trail was cut in Laos early in 1971. During this campaign, enemy *PT76* and *T54/100* tanks were met face-to-face. The 76mm gun of the *M41A3* rose to the occasion, and in the first tank-versus-tank action of the

war, five *M41s* accounted for seven *T54s* and sixteen *PT76s* while losing four of their own number. *but not to*
enemy tanks. That year also saw the activation of the 19th Squadron, II Armor Brigade (over a year 19th Squadron, II Armor Brigade (over a year ahead of schedule), and the first Vietnamese unit to be equipped with the *M48A3* medium tank, 20th Armor.

CONVENTIONAL WAR

Frustrated of success while maintaining the thin fiction of a home-grown insurgency, and entranced by illusions of quick victory over a supposedly fragile ARVN standing for the first time in seven years unsupported by US ground units, North Vietnam on 30 March 1972 threw off the wraps and launched virtually her entire regular army in a massive, conventional invasion. The initial shock was cataclysmic; the enemy's buildup, to be sure, had not gone unnoticed, and everyone expected a major effort. But none were prepared for open violation of the DMZ nor for the appearance on each of three separate fronts of more tanks than the enemy was thought to possess. Along the DMZ, in the Central Highlands, and in the rubber country north of Saigon, friendly units and bases were engulfed. ARVN staggered but did not break; and at An Loc, Kontum, and the My Chanh River above Hue, ARVN held, regrouped and then counterattacked to retake the rubble that had been Quang Tri. By September the enemy's 12 attacking divisions were spent and exhausted while ARVN — almost incredibly — was better trained, better led, better equipped; in all ways stronger than he had been at Easter. This goes far toward explaining why, at long last, Hanoi settled down to serious negotiations.

Throughout the ordeal, armor units were in the thick of battle in all areas, even School Troops, *The Armor School having been committed on the road to An Loc*. The initial bleeding of the 20th Armor, the newest unit and at that time the only medium tank battalion of the force, deserves special mention.

After a five-month equipping and training program with heavy emphasis on gunnery, the 20th completed its Army Training Test on the afternoon of 30 March. On 1 April, moving cross-country to a designated assembly area, it surprised and routed an enemy ambush lying in wait along a nearby highway. Among the prisoners taken were dismounted members of the North Vietnamese 202d Armor

Regiment whose mission had been to man ARVN combat vehicles expected to be seized intact at Quang Tri. These dreams of easy victory might have come true but for the 20th's subsequent demonstration of both gallantry and ability when, on Easter Sunday, they intercepted an enemy tank column of mixed *PT76s* and *T54s* dashing otherwise unopposed (weather had grounded friendly airpower) for the intact Class 60 bridge at Dong Ha. Bringing their 90mm guns to bear at ranges from 2,800 to 3,200 meters, they picked off 11 tanks before the enemy commander, unable to comprehend or identify the source of such long-range fire, withdrew without a shot in return. This crucial action allowed I Armor Brigade to establish a covering position which delayed the fall of Quang Tri City four precious weeks. Seldom has a new unit moved from training to combat so quickly and with such telling effect.

Tragically, the brigade commander's counter-attack proposal (three cavalry squadrons, the tank battalion, more infantry than could have been carried and abundant artillery/air/naval gunfire support were available) fell on deaf ears, and the tanks were relegated to the position defense until they were sucked up in the well-known fiasco of early May at Quang Tri City. The combination of position-defense attrition (five *M48s* were lost to the newly introduced "Sagger" missile and two to direct hits by 130mm artillery. Several more were damaged or destroyed by mines, recoilless rifles and rocket-propelled grenades but, significantly, *none* was lost to an enemy tank.), the previously mentioned lack of tools and spare parts, and the premature destruction of a bridge to their rear (the 20th was authorized no AVLs) caused the loss of 43 of the 44 tanks with which they had entered combat.

Even so, their performance (the classic Easter Sunday "save" at Dong Ha and at least 58 enemy tanks killed by 90mm gunfire) had so clearly demonstrated the *M48*'s value that the 20th was promptly refitted, given a crash retraining program by a Mobile Training Team, and restored to combat in time for the counteroffensive which retook Quang Tri. One measure of their effectiveness was the enemy's frequently observed refusal to engage them in tank-to-tank combat; the mere approach of an *M48* repeatedly triggering the withdrawal of all nearby *T54s*. Two additional medium tank battalions, the 21st and 22d, were also authorized. These

were activated at the Armor School in early August, *trained by the Vietnamese faculty* (highly significant since the 20th had required a special US instructor team), and deployed to combat before the ceasefire.

"VIETNAMIZATION" COMPLETE

When the last US advisor departed on 29 March 1973, he left behind a fully formed and thoroughly blooded force of cavalry squadrons, medium tank battalions, and armor brigade headquarters deployed throughout the land where once everyone knew you couldn't use armor.

Each of these, even the newest, had demonstrated in actual combat its ability to carry out any assigned mission at levels from platoon through brigade. Since the 1962 introduction of the *M113*, 2,843 "black-beret troopers" had laid down their lives in exchange for 52,254 of the enemy, earning thereby a position second only to the "rolling thunder" of the *B52* in that same enemy's own scale of most-feared weapons. Their future achievements remain to be seen, but it is safe to say that the ultimate result of these many years of conflict will depend in no small measure on how well or how poorly the division and corps echelons of command employ the thunderbolt forged for their use. Meanwhile, what lessons can we learn?

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LESSONS TO BE LEARNED

First, and fundamentally, we must learn once and for all that armor in its broadest conceptual sense can and should be used literally anywhere on the face of the earth where organized units engage in ground combat. Never again can we afford to accept a late start because of the apparent difficulties of swamps, rivers, jungles, mountains, or what-have-you; nor can we afford ever again to fall into the trap of thinking in terms of any single piece of equipment or fixed concept of employment. Innovative leaders must rather survey the physical environment, evaluate the nature of the enemy and of our own equipment inventory, and then demand of themselves a positive answer to the question, "How may mobility, firepower and shock best be applied and what contribution can they make to this situation?"

Second, we must not underestimate the potential of our indigenous allies nor arrogantly assume that we have a monopoly on technical, tactical and leadership ability and the "approved solution" for any and all operating environments. Any physically sound, normally intelligent, and reasonably motivated human being can be taught to operate and maintain even the most sophisticated combat vehicle. And it is most improbable that indigenous leaders have failed to learn at least something useful from personal experience in their own country. We must be alert both to capitalize on that potential and to learn new ideas and techniques from our counterparts.

Example: Using the *M113* in the tank-like fighting vehicle role and subsequently modifying it to the ACAV configuration to enhance its performance in that role were entirely Vietnamese innovations later adopted by us.

Example: Chronic US complaints about ARVN failure to implement our TAERS maintenance system notwithstanding, the operational availability rate of ARVN vehicles consistently and significantly exceeded our own.

Example: Tank kills at 3,200 meters exploit the full capability of the *M48A3* fire-control system and can scarcely be improved upon by the finest US crews.

©Vietnamization could, and should, have been a successful policy much earlier than it was. The decision to Americanize the war in the first place was, after all, ours — not theirs. Future US forces must be used to do only those things that indigenous forces lack the strength, equipment or training to do for themselves and then only so long as it takes to expand, equip and train them.

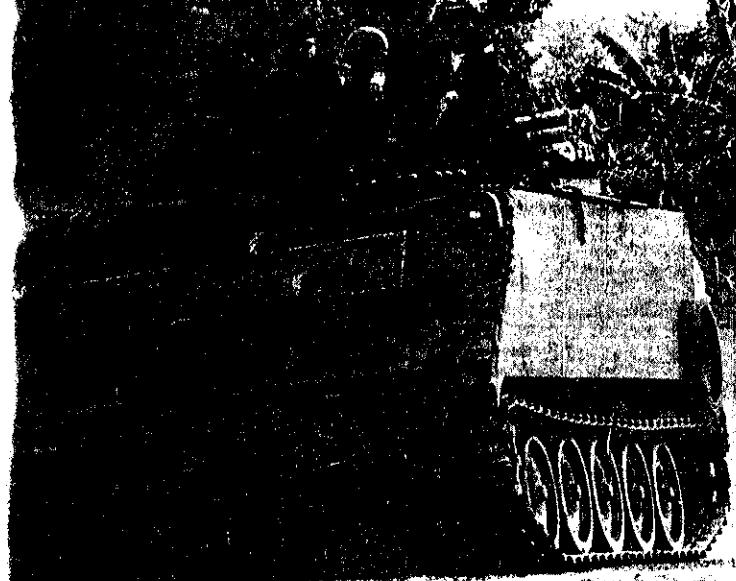
As a corollary, we must recognize and nurture the unique advisor-counterpart relationship. Once an advisor has established mutual respect and confidence (I deliberately avoid the badly over-worked term "rapport" which is not necessarily the same thing at all) with his counterpart and gained an understanding of his unit's strengths and weaknesses, he is only just ready to begin being productive. Too often, we removed the advisor just at this point because his tour was up or we wanted another to have the opportunity for experience. The 12-month tour was probably the greatest thing that ever happened to the drafted rifleman, but advising

is the business of career professionals, not draftees. Advisory tours should be set at two or even three years with appropriate arrangements for special leaves or families in nearby safe havens for those who demonstrate effectiveness in this very special business. Those who do not should be removed promptly with or without prejudice to their careers depending upon the circumstances. Moreover, successful advisors on subsequent tours should as a matter of policy be assigned to advise again at a higher level in the same organizational structure where they have previously established relationships.

As a further corollary, we must recognize what is both appropriate and possible for the indigenous force. It is not, for example, absolutely necessary that they be made into exact carbon copies of comparable US organizations: if they have a traditional structure of their own, it is probably best to leave it intact and design our own advisory structure to fit. Further, we must be reasonably philosophical about the fact that crash expansion and training programs are likely to produce certain transient problems. When one completely re-equips and changes the operational role of a small professional armor force and then quadruples its size by the amoeba-like process of splitting off new unit cadres while simultaneously accelerating the pace of combat and continuing to accept casualties, one should not be surprised when the available pool of proven leaders and skilled technicians is occasionally stretched somewhat thin. It is considerations such as these rather than the amount of equipment and money at hand which limits the speed of the buildup and requires us to pause at intervals to develop a new base of experienced cadres.

Only after stabilizing at the ultimate force structure can complete professionalism reasonably be expected in all facets of the organization. Meanwhile, we are likely to see examples of do-it-yourself commanders with relatively weak staffs and maintenance shops where one or two real mechanics carry the load for a whole gaggle of apprentices. If during the buildup all units remain consistently able to fight, we should not look upon an occasional foul-up as evidence of inherent incapacity and impending disaster.

Third, in building an indigenous force, we must maintain balanced proportions and constantly take time to attend to the smallest details of our own staff work. The need to insure an adequate stock of tools and spares for a new piece of equipment has



already been mentioned. Similarly, it boots us little to authorize a particular radio or intercom if we fail to include the installation unit and the helmets or headsets without which it cannot be mounted and used in a specific vehicle. These are additional reasons for long tenure in advisory positions.

At a different level, careful thought must be given to various cost-effectiveness tradeoffs and the true needs of the local operating environment. Surely armored vehicles do not need crew heaters in Vietnam, and it was proper not to supply expensive HVAP and APDS ammunition until the enemy developed a tank capability of his own. On the other hand, one questions the wisdom of limiting \$100 million worth of fighting vehicles to daytime-only employment by refusing to spend \$300 thousand on searchlights. Or again, how many *M48s* might have survived Quang Tri had 20th Armor had an AVLB section?

Fourth, tank-versus-tank actions since 1971 have repeatedly demonstrated that when two opposing tanks mount weapons each capable of destroying the other, victory goes not to the biggest gun or the thickest armor but to the better-trained, cooler-headed crew which uses a *reliable* (not necessarily sophisticated — witness the *M41*) fire-control system to score the first hit. This truth merits careful reflection by our research and development community.

Fifth, a whole host of lesser, nuts-and-bolts lessons: the need for counter-ambush battle drills; the folly of repeated use of the same routes; the limited utility of shaped-charge projectiles which penetrate nearly anything but destroy nothing except by secondary explosions of on-board fuel or ammunition (another morsel for the research and development folks to chew on); armor's utility as a quick-reaction strike force and in the area-security role;

the need to resist piecemeal employment; the need to orient on the enemy rather than on terrain objectives; the stupidity of wasting armor in the fixed-position defense where it forfeits mobility and shock to become just so many pillboxes. All of these and more were valid in Vietnam, and many will be valid again somewhere else. They illustrate, however, one final lesson of universal application: the folly of allowing the experience of the last war to limit our thinking for the next. Tomorrow's Armor leaders do not need a handbook full of detailed tactical lessons from Vietnam. They need instead a sound grounding in fundamentals and open, innovative minds ever alert for opportunities to apply basic principles to new situations in imaginative and effective ways.

EPILOGUE

Those who served with US Armor in Vietnam should take pride in their own achievements and satisfaction from the knowledge that ARVN Armor made good use of the time they bought. Those who served as advisors to ARVN Armor should take no less pride, for they truly forged the thunderbolt. But the plucky ARVN troopers themselves should take the most pride of all. They *are* the thunderbolt, standing now on their own as first-class professionals in their own right.

KY BINH VIET NAM — MUON NAM!

For the Vietnamese Cavalry — ten thousand years!



COLONEL RAYMOND R. BATTREALL received his commission from the US Military Academy in 1949 after enlisted service in the Army Air Forces. His commissioned service includes more than eight years with the 14th, 11th and 3d Armored Cavalry Regiments. In Vietnam Colonel Battreall served as Senior Advisor for the 4th ARVN Cavalry and RVNAF Armor Command and later as Chief of Staff, Army Advisory Group. He is presently assigned as Secretary of the Joint Staff, HQ, USSOUTHCOM.