

The Principles of the Employment of Armor

Recently, we received this from General (Retired) Robert J. Sunell with a short note pointing out how so many of the principles for employing armor in 1948 rang true today. We must agree. Since only the most senior of our readers have ever seen this, we reprint these principles from Special Text No. 28, "The Principles of The Employment of Armor," published for use in resident instruction at The Armored School, circa 1948. — Ed.

Introduction

The last ten years have seen great changes in the art of warfare. Air power has profoundly changed our military concepts, but it has not eliminated the need for ground forces. Rather, it has served to weld more closely together the several armed services into an overall balanced national defense team wherein each service aids and is in turn aided by the others in accomplishing a common mission.

On the ground, we have seen more open and fluid warfare, faster movements, more dispersion, more elastic defense formations, and the ability to concentrate great power at a particular point, thereby making the penetration a more commonly used maneuver. Armor has been responsible for much of this change. We have witnessed the employment of armored divisions, armored corps, and armored armies. The new type field army of the American Army is virtually an armored army. It has approximately 3,500 tanks plus much self-propelled artillery.

The ability to produce the mechanical means of warfare and to employ those means is an outstanding asset of the United States. We must develop and use this asset to offset the advantage of more manpower possessed by our possible opponents. The use of armor is in furtherance of that concept. It is also in furtherance of our efforts to reduce casualties on the battlefield.

Armor is the arm of mobility, armor-protected firepower, and decisive shock action. Armor is a vital and regular member in the ground team. Armor brings within reach of the field army commander decisive objectives. It provides on the modern battlefield the means by which the army commander can achieve the ultimate objective — destruction of the enemy's will to fight.

There are certain basic principles which govern the employment of armor — but they are no more than guides. As in the rules of bridge, there is no place in the principles of employment of armor for the words *always* and *never*. The successful application of the principles of armored employment is entirely dependent upon commanders and staffs being flexible in mind, progressive in thought, and liberal in imagination.

Armor Plays the Historical Cavalry Role

Armor fulfills the role in modern warfare that Napoleonic cavalry fulfilled in the 19th century. It combines great mobility with overwhelming firepower. Cavalry of the later 19th century and the 20th century relied primarily on mobility. The firepower of armor must not be overlooked in a consideration of its characteristic of mobility.

For many years armies have sought light, fast-moving units that could upset the time-space factors of the opponents. They were willing to sacrifice some power in order to attain the mobility desired. The cavalry was developed into such a force. With the wide use of automatic small arms and other effective

weapons, and of automotive vehicles, the horse no longer was an effective weapon or an efficient means of transportation on the battlefield. Armor, which combines both high mobility and great firepower, has assumed the historic cavalry role in modern war.

Armor Is a Strategic and Tactical Threat

Armor is a strategic and tactical weapon. Not only is the presence of armor locally a threat to any force, but its capabilities of long movements and prompt commitment make the presence of distant armored units a threat to any operation.

Armor Uses Its Mobility

Armor has been described as "mobile, armor-protected firepower." Armor gains its ends through its ability to move and shoot, but above all, to move. An armored formation many miles away has the ability to intercede in a battle in from 10 to 20 percent less time than a formation geared to the foot soldier. Armor moves in a fighting formation. To its speed of movement, then, must be added its ability to be committed promptly from march formation. Mobility in armor is derived not only from tanks, armored personnel carriers, and self-propelled artillery, but also from the extensive organization of mobile service support at all echelons from company to division.

Armor Uses Its Firepower to Close With the Enemy

Armor concentrates its power at the decisive point of action. Armored formations contain an overwhelming superiority of armor-protected machine guns and cannon. The tank cannon is essentially a weapon used against enemy tanks. It is not artillery. In the application of armor's fire and shock power, artillery and other supporting weapons provide the covering fires which enable the tank machine guns and armored infantry to close with and destroy the enemy.

Armor in Strength Produces Decisive Shock Effect

The psychological shock effect which comes to troops on the receiving end of a massed armored assault is terrific. This effect radiates from the point of attack in concentric semicircles as do the waves from a stone dropped in the water near the edge of a millpond. If the attack is in strength, these shock waves reach to the enemy division, corps, and army headquarters. Shock effect gives armor part of its protection and hastens the disintegration of the enemy force attacked. The shock effect of the mass employment of armor varies as the square or cube of the number of tanks used. Attacking with armored strength too small to produce decisive shock effect often results in great losses and inconclusive results.

Armored Formation Must Be Flexible

It is not given to many to be able to visualize all that can happen during a full day of armored action. Unforeseen contingencies occur. Situations as to terrain, weather, footing, obstacles, and enemy cannot be accurately predicted far into the future. A set formation for all situations is a dangerous oversimplification in armored tactics. The armored division is designed to fight in two flexibly-organized combat commands. Each is composed from time to time to perform most advantageously the job at hand. Each is commanded by a general officer who has a staff ade-

quate for handling operations in fast-moving situations and trained to work under mission-type fragmentary orders.

Armor Is a Thrusting Weapon

Armor is a weapon which should be thrust quickly through enemy opposition on a relatively narrow front. It is strong as long as it remains in depth. It should not fan out until the opposition has been reduced and powerful enemy counter-reaction is no longer probable.

Armor Stays in Column for Strength

This does not mean that it necessarily moves on a narrow front or on only one road. It may advance on a broad front, but so long as the tactical formations of the division and combat commands are in column, the commanders are ready for any contingency, and prompt action can be taken without waiting for higher staff reaction and direction. Breaking through and out of an enemy defensive zone in a column of combat commands gives as much or even more effective power in the breakthrough, and at the same time saves an uncommitted tactical command to handle contingencies and to push on promptly in exploitation. Armor formations are organized in anticipation of success.

Armor Drives Deep, Assembles, and Destroys

An armored unit commander must observe the principle of the objective. An engineer who wishes to blow down the face of a rock wall bores deep, assembles his charge, and blasts back. He does not place his charge on the face of the wall. Armored action is similar. What protects armor during this process? The answer is speed, mobility, flexibility, enemy command and staff inertia, and the time and space factors which control the ability to react to such a force. The shock effect of armor reaches even to commanders and staffs and adds to the inertia and the time it takes to react.

Armor Needs Mission-Type Orders

Armor should be given a mission and the minimum essential restraining and coordinating directions. It should be given the ultimate and decisive objective of the next higher commander so it can take prompt advantage of breaks in order to make great gains.

Armored Action Calls For Combined Arms Teamwork in Lower Echelons

Armored formations contain, in intimate association, tank, infantry, engineer and artillery elements. This may, and often does, extend down to the company level, where the tank company may have infantry and engineers as well as the ever-present artillery forward observers. Such a situation on the battalion level is usual. It should not be assumed that the tank unit commander is always in command. Often the armored infantry unit is the basic force to which tanks and engineers are attached, and artillery closely supports.

Once the Momentum of an Armored Attack is Attained It Should Be Allowed To Run Its Course

An armored division has enormous momentum when it gets rolling. To dampen this by phase lines, limited objectives, and other factors that require high-level decisions in order to continue to advance, dissipates that momentum — often faster than does the enemy. Any restriction on movement may provide the enemy with time to react and will frequently result in loss of the initiative.

Successful Armored Action is Characterized By Deliberate Planning Followed By Violent Execution

Armored action involves large road space, close timing, elaborate supply plans, and extensive plans for maintenance. It involves careful coordination and teamwork with all arms. Artillery, mortar, and air support must be tied in. Communications must be coordinated and perfectly established. To do all these requires thorough and deliberate planning.

Once the planning is done, the execution is the pay-off. It must be violent if the mobility, firepower, and shock effect desired are to be attained. Half-hearted execution is fatal to the results expected from armored action.

Armored Action Requires Supply and Maintenance

Adequate plans and facilities for supply and maintenance are essential. It takes about 1,000 gallons of fuel to move an armored division a mile. An armored unit out of fuel is easily destroyed. Firepower means consumption of large quantities of ammunition. Food is necessary. In the typical armored action, supply routes may be cut by enemy action for several days. These contingencies must be foreseen and means provided to assure success. The combat command should carry with it the supplies necessary to reach the final objective and hold effectively.

Tanks and other armored vehicles require frequent and complicated maintenance. The means are available in the armored division; the time must be provided if a favorable balance of combat vehicles is to be kept in action against the enemy for sustained operations. The rotation of combat units through the reserve command and the infrequent employment of the reserve command as a combat command will provide the necessary time for maintenance.

Armored Defensive Action is Elastic

Armor can conduct and has conducted very effective defenses. It does this by being elastic, by rolling with the punches, by counterattacks, and by anticipatory thrusts to upset an enemy attack forming up. It does not establish a brittle line. It disposes itself in considerable depth. While defense has not been the role normally associated with armor, its capabilities on defense in future warfare must not be overlooked.

Armor and Tactical Air Are Partners

It is literally true that armor and tactical air, when working close together, form a team with enormous power. This partnership does not happen by chance. It takes close association, careful air-ground training, and an intimate understanding of each other's capabilities, limitations, and methods to attain the desired relationship. Armor is the one that needs the support. It must go far more than halfway, if necessary, to effect the partnership.

Conclusions

The proper application of the principles of the employment of armor will produce outstanding results. They should be considered not as rules, but as guides after carefully estimating the situation. Deliberate planning is needed. Violent execution then pays the dividends. Flexibility of mind, concept, and formations is required of an armored commander and his staff. He must be willing to take coldly calculated risks. When he holds the cards he must back them up with all his chips, and often he must be willing to put in all his chips when he is not sure that he holds the winning hand.