Tactical and Strategical Effects of the Development of the Fast Tank

Major L. S. Hobbs, Infantry

In approaching this subject we must, from the start, acknowledge the technical difficulties incident to securing the fast tanks with which we have to deal.

Many individuals will maintain that no definite and generally acceptable doctrines relative to the tactical and strategical use of fast tanks can be established until the essential characteristics of the tank with which the Army is to be equipped are determined with a fair degree of certainty. I take exception to that conception. In this highly mechanized age, when each year competing automotive industries supply new models with many new features, it is reasonable to feel assured that, if the tasks we desire the tanks to perform are determined, the tanks will be forthcoming. The evolution of the tank to fit our tactical and strategical needs is as inevitable as was that of the automobile and the airplane.

While it cannot be denied that in a future emergency we will have to start with the material at hand, our Army should strive to improve its position in this regard as far as possible, and to develop methods for employing new models. In general, most successful armies have been those whose leaders have been quickest to appreciate new possibilities, and to develop methods for exploiting the advantages offered thereby.

The *Infantry Field Manual* has defined a fast tank as "a tank that has a sustained cross-country speed of ten (10) miles per hour or more." In view of recent American, British, and Russian tank developments and tests, this definition is surely conservative. All such tanks have shown speed far in excess of ten miles per hour, and, while such increased speeds probably would not normally be used, they are valuable because they indicate a reserve of power capable of carrying the tank over the majority of the terrain where tanks may expect to operate, at about the conservative rate of ten miles per hour. The tank may also be in a position to profit from a possible burst of speed.

Combined with speed must be the qualities that will permit the tank to travel long distances and for considerable periods of time without serious mechanical difficulties. Fast and reasonably dependable tanks have already been produced in small numbers, and there can be no question that further developments will continue, and that the armies of the world must learn to use this weapon to the greatest advantage.

Organization

Presupposing the availability of fast tanks in sufficient numbers to utilize them as desired, the organization of units has a direct bearing on the success of our mission. Our present organization appears, in the main, to be satisfactory. Here we find a General Headquarters reserve, organized into regiments, and an allotment to infantry and cavalry divisions. The allotment of these tanks in specific instances will be based on the plan of maneuver, with a priority series.

General Headquarters will allot to Army. Army will allot to leading missions, Corps and Army reserve. Corps, in turn, will allot to leading missions, Divisions, and Corps reserve.

The present triangular organization within the tank units proper, that is, three battalions to the regiment, three companies to the battalion, and three platoons to the company, also appears to be satisfactory.

Within the tank platoon, it is probable that the present number of tanks (five), could and should be reduced to three, in order to secure more satisfactory control and facilitate communication. The presence of the platoon commander man individual tank as a member of the crew, or in a vehicle capable of accompanying the platoon is necessary.

The British, who have led the world in tank development and employment, have found need for two tanks in their organization; small, fast tanks for purposes of command, communication, reconnaissance and security, and medium fast tanks which constitute the principal fighting weapon of the organization. However, in most recent maneuvers the trend seems to be toward the utilization of only light tanks.

Add to a tank organization as noted above a mobile weapon that can accompany the tanks to aid in overcoming antitank defense weapons of the enemy, and we come to our task well equipped with an efficient machine.

Tasks

The *Infantry Field Manual* states: "The combat functions of tanks are strictly offensive. Although tanks may assist in the defense, they do so by offensive action. The tactical employment of tanks now in our services comprise the following roles:

(1) As leading tanks.

(2) As accompanying tanks.

"Exploitation by tanks: For exploitation, fast tanks will be especially suitable. When tanks are employed for exploitation they should, if practicable, attack the hostile general reserves. By so doing they may prevent a hostile counterattack and bring about decisive results."

We will therefore hold to the terms of leading, accompanying, and exploiting tanks used in the *Infantry Field Manual* as adequate for our needs of terminology.

Approach Marches

With the advent of the fast tank, the problem of getting the tanks to the battlefield seems to be vastly simplified.

With the demountable-track tank the flexibility of the support to be rendered by the mass of tanks held in General Headquarters reserve is greatly increased. Tank concentrations can be shifted from one part of the front to another on short notice and without delay. Tank parks can be located farther to the rear, thereby better avoiding the enemy artillery, and avoid congesting forward areas. The approach march, which, with the old tanks, took one or two nights, can be accomplished in a few hours with the fast tanks. The detraining point will no longer be needed. The assaulting positions can be much farther back from the line of departure, thereby better avoiding enemy fire, insure fewer casualties, and afford better preparation for the assault. Speed in the approach march, combined with the absence of the characteristic noise of the slow tank, will permit us to concentrate our fast tanks at any desired place without the knowledge of the enemy, and secure the element of surprise, which was difficult with the slow tank.

Accompanying Tanks

Let us again quote the *Infantry Field Manual* regarding the accompanying tank: "The mission of accompanying tanks is to render close cooperative assistance to the advance of the assaulting waves of attacking troops. They reduce points of resistance that may develop immediately to the front or flanks of the units to which the tanks are attached. Slow or fast tanks and light or medium tanks may be used, but *fast* light tanks are best suited to this mission."

As the name indicates, accompanying tanks are used in direct conjunction with infantry troops. Infantry mobility on the battlefield will be enhanced by a more effective assistance in breaking through the bands of small-arms fire which habitually covers the hostile front, and which pin the unarmoured soldier to the ground. From the viewpoint of the infantry, this is the principal mission of the tanks. To serve such a purpose tanks must, above all other things, be invulnerable to small-arms fire. But, since it is impracticable to carry sufficient armor to protect against shells, combat machines must also have a speed, maneuverability, and reliability on average terrain that will make them difficult targets for artillery.

The one redeeming trait of the present slow accompanying tank, and the one so much referred to by those who think high speed undesirable, is the fact that they cannot "run away" from the infantry which they accompany. Increased speed in no way presupposes such a running away. It does presuppose a power of cooperation which will permit the use of limited objectives, and beyond which they will not move until these objectives are occupied by foot troops. The speed of the tanks will be used for changes of

direction, seeking sheltered avenues of approach, and the neutralization of antitank weapons. The speed of the fast tank will permit a more continuous advance in assistance of the foot troops because the fast tanks can seize an objective, assemble, receive additional orders, and, with a new burst of speed, maneuver on to a new objective. The fast tank in an accompanying role can not only do everything that the slow tank can do, but it can do it better, and many more things in addition. No one can dispute that the following facts relating to the fast tank all tend to favor such a vehicle over the slow tank:

(1) They can cover more ground in a much shorter space of time.
(2) They can utilize cover and concealment to better advantage.
(3) They can engage and crush hidden machine guns more readily.
(4) They can be assigned a wider zone of action.
(5) Their ability to employ sudden bursts of speed and to zigzag rapidly reduces the danger of being put out of action by direct hits—the only hits that materially affect tanks.

We can therefore expect that fast accompanying tanks will permit the more rapid advance of the foot troops, with fewer casualties. The rate of the foot troops will remain unchanged, but the time consumed in gaining the necessary rifle fire superiority to permit an advance will be materially lessened.

Once light fast tanks penetrate a hostile position their infiltration will be so rapid that the defender will have a poor chance of withdrawing his infantry on either side of the breach in time to rally and build up a fresh line of resistance to the rear. Because of their speed and armor, tanks are clearly the ideal agents of infiltration or "soft spot" tactics, that is, to push along the line of least resistance, while reserves deal with the groups of the defense that still hold out. In 1918 these tactics brought the Germans great, but limited success, as the infiltration was carried out by the slow-moving and non-bullet proof infantry. Today it can be carried out by fast tanks, less susceptible to the risk of being checked by flanking machine guns.

We will now leave the accompanying tanks and go to the leading tanks, where our subject offers the widest field of development. However, we will keep in mind that we have not exhausted the subject of the accompanying tank, and that we will offer additional utilization of these with the leading tanks.

Leading Tanks

The idea of leading tanks is based on the supposition that tanks can assist the attack by passing well through and beyond or around the enemy main battle position, and, by action against artillery, reserves, and communication systems, open the way for its success. The *Infantry Field Manual* has the following to say on this subject:

> "The purpose of leading tanks is to assist in the main effort of a general attack by making a breach through a strongly organized defensive line with the ultimate mission of disrupting artillery in position and strong local reserves available to the enemy for counterattacking and closing the gap. Leading tanks normally operate under the control of a unit larger than a division, usually a corps. This is necessary to insure that their own effort will be well coordinated when, as frequently occurs, their zone of action includes, in whole or in part, the zones of action of adjacent divisions; also to insure cooperation between them and the long-range artillery when they pass beyond the range of divisional artillery.
>
> "A battalion of leading tanks will usually form for attack in line of companies in column of platoons deployed in line. Battalions are arranged in line or other formation suited to the situation. The number of regiments in the leading force depends upon the needs of the situation and the number of tank units available.
>
> "The zone of action of the leading tanks is determined by the commander from whom the commander of the leading tanks receives his tactical orders. Usually this zone will be definitely prescribed only through the hostile main position, since beyond it the situation, as it develops, may determine the direction and extent of the leading tank action.
>
> "The waves of leading tanks cross the line of departure between time limits fixed in orders. The attack starts at a definite initial speed. Subsequently the speed is coordinated by guiding upon a base unit or by means of a simple time schedule. Zone or routes for the advance

of subordinate units may be prescribed. The depth of advance depends chiefly upon the speed of the tanks, the depth and strength of the hostile defense, and the terrain. Other factors may be the condition of the tanks, the training of the personnel, the daylight available, etc. Under favorable conditions the Mark VIII tank may penetrate to a depth of from 5,000 to 10,000 yards. Fast tanks might effect deeper and speedier penetrations.

"The principal objectives in the order in which encountered are the main hostile position, to include the regimental reserve line; artillery in position, command posts, communications, and small local reserves; and, finally, the large local reserves. In overrunning the hostile main position the leading tanks attack organized terrain features, such as centers of resistance, strong points, groups of automatic arms, and antitank weapons. Penetrating further, they take advantage of every opportunity to disrupt measures taken by the enemy to meet the attack.

"Routes for the return of leading tanks to their assembly points are planned in advance so that their appearance moving counter to our direction of attack may not be mistaken at a distance for a hostile counterattack. These routes may be outside the zone of action as prescribed for their attack.

"Communication with the leading tanks will be provided for in the plan of signal communication of the unit to which the leading tanks are attached. Airplanes are particularly useful in observing and reporting the progress of the tank attack. The use of light tanks, airplanes, or both, for messenger service may be advisable."

A large body of fast tanks moving into enemy territory will unquestionably be of powerful assistance to assaulting troops, but in order to get to their objective as at present contemplated, they must pass through the main hostile position, beyond the assistance of infantry, and in a zone where artillery support will be difficult and at times impossible. The organization of such a force must unquestionably include a close supporting weapon, and must insure close control of its units.

Our present policy for leading tanks is based upon the idea that such tanks will move to the attack shortly before the assault troops, pass over the enemy position and through artillery fire, both of our own and that of the enemy. The enemy fire of course cannot be controlled, and the tank units must take their chances. But coordination with our own artillery must be secured. Can we afford to lift preparation fires, or do without them on the selected front, for a sufficient period to permit the leading tanks to pass through? In passing through the position, how long will it be before the artillery can open fire? Can the counterbattery and harassing fire of the artillery be coordinated with this tank move? Can an Army or Corps commander risk the heavy losses that might result from failure of proper coordinating effects?

If the commander is far-sighted, and considers his fast tanks powerful supporting weapons to be used to further the general scheme of maneuver, might he not well decide to give a mission to the artillery on one part of the front and a mission to the leading tanks on another part? In answer to this last question we have no concrete example on which to base our conclusions. But we can take the example of the British at Cambrai, remember the initial success attained by following just such a procedure, and visualize what the results might have been if fast tanks had been available at that time.

Such a plan would simplify the coordination of artillery and tanks, and leave the bulk of the artillery to support the attack on other parts of the front. These questions afford a subject for much thought, but the answers do not fall within the scope of this discussion.

It is a fundamental principle that we should bring a striking force to the point of employment as nearly complete as possible. A move of fast, leading tanks toward their real objectives, namely, reserves, artillery and rear establishments, and through the enemy's battle position, would certainly find them sadly depleted in making the initial breakthrough. They would have to combat enemy antitank guns and machine-gun batteries in such a movement.

But suppose we precede these leading tanks with what we may call advanced accompanying tanks. These would also be fast tanks whose sole duty would be to effect the breach through the main battle position, combat the enemy antitank guns and machine-gun batteries located in that battle position, and

then return for further use as accompanying tanks as we now understand them.

We would then have a unit of fast leading tanks adequate to the task of moving rapidly through the breach created, and proceeding rapidly to their mission of disorganization in the rear areas.

There is no question that by such a procedure the leading tanks can reach vulnerable areas and effect damage which will amply repay losses which must necessarily occur to the tank units. The disruption of enemy's communications, the destruction of an important reserve, or the destroying of his ammunition supplies at the beginning of a large offensive might easily render such an enemy impotent at the time of our decisive effort, and bring forth a speedy decision in favor of our forces.

Through such a breach we assist the movement of our fast leading tanks by the use of smoke screens, and air and artillery preparation. There are two fundamental classes of tank attacks:

(1) An attack without artillery and air preparation; and
(2) An attack with a short (one to one and one-half hours) artillery and air preparation.

Consider the latter method, also using a smoke screen. In order to save time and to secure surprise, the artillery and air preparation should be conducted during the employment of the smoke screen. Destruction of definite areas and points of resistance can be so carried out, in view of the strength of modern artillery. It is only necessary to make all arrangements regarding the distribution and transfer of fire before the smoke has reached the respective targets, and to coordinate the action of the artillery in time and in depth with the scheduled smoke screen. The mission of the artillery and air preparations during such an attack is to disrupt the enemy artillery and destroy his system of antitank defense. The further operation of the artillery and the air forces must be coordinated with those of the tank groups and the placing of the smoke screens.

But why limit our activities to moving such fast leading tanks through a portion of an enemy's defensive system in a stabilized situation or directly toward him in a strategic advance and concentration, if terrain and enemy's dispositions permit us to move around one or both flanks?

There is nothing visionary about the subject of "deep tactics" as referred to by the Russians. In such an action we consider, by a combination of the use of fast tanks, aviation, long-range artillery, and motorized and mechanized units, a simultaneous operation against the whole depth of the hostile combat zone with the mission of simultaneously engaging and annihilating all the enemy's troops, no matter how far away they may be located. The striking power of the principal arms of such tactics—fast tanks and aviation in large numbers—can be made sufficient for the execution of independent missions in the enemy's rear. During the World War attempts were made on the western front to engage hostile defensive zones throughout their entire depth, and the lack of success was due, not to the fault of the tactics, but on account of the capabilities, limitations, and methods of employment of the then existing tanks, aviation, war gasses, and artillery.

With forces of any size directly opposing each other the attacker can only gradually overcome the hostile defensive system, because only the weapons in the vicinity of the main battle position can be completely silenced, and the enemy has time to concentrate his reserves in the endangered locality. In order to overcome this situation, it is necessary to launch simultaneously a frontal attack and an attack against weapons, reserves, headquarters, etc., located in the rear areas.

A suicide club, you say? So people talked about aviation in its infancy, but today we hear cries from all sides that future wars will be won in the air. Surely a fast tank unit can have more chance of maneuver against an enemy stronger in such weapons than can an inferior air force against an opposing air force that is correspondingly stronger; can have as much chance against a force of its own size; and even more against an inferior enemy than can units of an air force involved on similar missions.

Such a move by fast tanks is no more hazardous than any detached mission, on the ground or in the air, where it requires ingenuity and skill to successfully perform a mission and successfully return. Losses? Yes. But in incurring such losses the fast tank unit has accomplished the destruction of the rear echelon of the enemy, the ammunition located in his ammunition depots, the artillery moving into position or moving up from rear areas, enemy reserves, enemy airdromes, disrupted the enemy communication system, thrown the enemy's entire system into chaos. Any or all of these results justify the losses, and operate to prevent far greater losses of lives and materiel and far greater

financial outlay which of necessity would occur in a progressive frontal attack with a continual hammering of infantry and artillery and all other supporting arms to accomplish a grand "breakthrough."

In modern war with the information available to commanders of field forces, definite conclusions as to general courses of hostile action can be made with considerable accuracy. There is little excuse for a commander to remain inactive and await developments. When a course of action, offensive or defensive, has been accepted, decisive action in accordance therewith must follow. We immediately think of dispatching into the air our air forces, for an initial destructive mission or missions, or to gain information.

We have at hand in the fast tank a means of securing commensurate results of a more definite character, both as to destruction and to information. Against an offensive on our part, an enemy is rushing his forces up to a specified defensive location and organizing in depth, with his main effort directed principally to the front or the immediate flanks of such a front. Ordnance of all types in rear areas is generally incapable of serious action against tanks. They are heavy calibers, slow of movement, and unsuited for fire against point targets, especially when those targets are moving. The only real protection of rear areas at the present time is antiaircraft artillery, which is designed primarily for fire against targets which insure an elevation of the gun through an angle considerably above the horizontal.

In the initial phases of combat between first class nations such a condition will exist until the need of antitank guns in rear areas is demonstrated, and until such guns are available in sufficient quantities. Meanwhile, the nation with the foresight to insure that it has on the field of battle fast tanks in sufficient numbers to afford a hard-striking force, will secure results that will make it too late for its opponent to bring into action those pieces of ordnance in rear areas so vital to its protection.

Several interesting examples from the British exercises of 1932 bring out some salient points in the utilization of fast tanks.

To show the celerity of a fast tank force, one battalion of the Royal Tank Brigade was suddenly called upon to interrupt the march of a reinforcing infantry brigade, so as to prevent its tilting the scale of battle. When the call came the tanks were under cover, five miles distant from the enemy column. The latter had a lesser distance to go before it could arrive on the field of battle. But it did not arrive. In a short space of time the tank battalion was on the move, already preceded by a patrol of light fast tanks reconnoitering for the head of the enemy column. In about twenty minutes the head of the column was fired upon by the leading tank company. In another fifteen minutes the column had been completely dealt with, when a report was received that hostile tanks were hastening to the rescue. Within ten minutes the whole tank battalion reformed, and was ready to tackle the new opponent.

In another exercise the entire tank brigade was used as an army's strategic arm of maneuver. It circled round the flank of a hostile army with the aim of turning that army's retreat into a rout. At daylight the brigade was in a concealed location eleven miles distant from the road on which the nearest column were retreating. The distance would have been nearly a day's march for an ordinary force. After the issuance of orders, a light battalion moved off, followed by three mixed battalions. Within twenty-five minutes the light battalion had advanced over seven miles. Upon making contact with the enemy's marching column, a stream of messages reached the brigade tank commander in rear, giving the location, not only of the head and tail of the column, but of its battery position and antitank weapons. Orders were given for two battalions to attack the forepart and hindpart respectively of the column, one light company having been sent off ten minutes earlier to block the head. One-half hour later a third battalion, followed by two light tank companies, was launched between the two battalions, and completed the enemy's demoralization.

In still another maneuver the entire tank brigade was again used. In this exercise the general idea was that the small army to which the tank brigade was ultimately attached had been compelled to retreat in order to gain time until the mobilization of their forces was complete. The stronger army had pressed on, and was menacing the capitol of the small army. Mobilization of some forces having been completed, and the tank brigade having been made available, the advance of the enemy was brought to a halt and the counteroffensive was assumed. To coincide with the offensive, the tank brigade executed a wide enveloping maneuver around the flank of the hostile army, against its communications, and covered nearly fifty miles. By afternoon it was astride the enemy's rear, cutting communications and lines of retreat.

This exercise was cited as an excellent example of a move that would have been decisive in 1914 in turning the flank of the German right wing, the maneuver which, in the exercise, was begun and completed in a single day.

It is worthy of note here that the tank brigade referred to, although not complete with the latest machines, embodied a fire-power, in guns and machine guns, greater than a division of nearly 20,000 men. The fire-power is, for practical effect, multiplied by armor and speed. Yet it could be assembled in a time incomparably small as compared with an infantry division, and this tremendous fire-power was wielded and the brigade maneuvered by hardly more than six hundred (600) men.

Exploiting Tanks

Again quoting from the *Infantry Field Manual*: "For exploitation fast tanks will be especially suitable. When tanks are used for exploitation they should, if practicable, attack the hostile general reserves. By so doing they may prevent a hostile counterattack, and bring about decisive results."

In the World War experience proved that the attacker, having demoralized the enemy, and needing little to change defeat into disaster, was often thwarted from reaping the final fruits of victory because he had passed beyond the effective support of the artillery and was unable to continue the pressure he had been exerting. The old tanks were too slow in reaching the enemy to be effective.

But the fast tanks, held in reserve by the commander until a success is indicated, will be able to exploit that success, and so gather the full fruits of victory. A regiment of fast tanks could be sent to seize essential terrain features, to disrupt artillery which still interferes with the advance, to interfere with the communications of the defender, to disorganize or scatter organized reserves, to prevent counterattacks, or prevent organization of defense on a new position farther to the rear. Such tanks should not be piece-mealed out, but should be used as an entire force, giving to them a mission, which, if fulfilled, would cause the greatest embarrassment to the enemy. Here the supreme commander can more readily determine what part of the front to give to the harassing fire of long range artillery and what part to exploiting tanks.

Movements and formations for exploiting tanks will conform generally to those visualized for the leading tanks except that the tank commander of the exploiting tanks may be allowed more freedom of action. Such exploiting tanks, used at the proper time, in the direction and against the objective which offers the greatest opportunity for turning a local success into a real victory, will be the most powerful ground weapon available to the army or corps or division commander.

Defense

Like the airplane, the tank is an offensive weapon, so that whatever the plan of the higher commander, the action of the tanks must be offensive. In the defense, the commander uses all means at his disposal to disorganize and perhaps stop the enemy's attack before it reaches his defensive position. Here we can see an excellent use for our fast tanks.

We can give them a mission of disrupting the hostile attack by a blow against assaulting troops. If this attacking force were struck in flank by an attack of fast tanks just as they were about to move forward to the attack, the results would be particularly effective.

An attack against the enemy's formed reserves by a fast moving tank unit could well be the means of attaining success in any defensive position by preventing the enemy from using such reserves. Fast tanks will of course be used in counterattacks launched to restore portions of the position which have been overrun. The mobility of the fast tank will enable it to take part on more of these counterattacks on different portions of the defensive position, to accomplish its mission more quickly, and to avoid casualties.

Fast tanks will be invaluable in the counteroffensive. Here we see opportunities to attack the enemy in force from a flank or from a covered approach, and effect a maximum of surprise with a strong crushing blow.

Special Operations

Speed, dependability, and mobility have made the fast tank a weapon of great value in the special operations of warfare. They could be used by advance guards to quickly overcome slight resistance, and permit the column to march without interruption.

Due to their ability to travel considerable distances under their own power, they can move along with the advance guard whenever occasion demands. If not

accompanying the advance guard, they could move rapidly forward from the main body and assist an advance guard in offensive action.

In a meeting engagement, fast tanks operating against one or both flanks of an enemy, even swinging completely around his rear, would greatly delay his forward movement, and probably bring it to a standstill. In a withdrawal, fast tanks could disengage closely pressed units by a series of counterattacks from flank positions. During the retirement they can harass and delay the heads of the pursuing columns. In the hands of an energetic outpost commander a unit of fast tanks would constitute a highly mobile and effective reserve.

We cannot leave this question of special operations without mentioning tank vs. tank. It is inevitable that there will be a meeting of such forces in a future war between first class nations. Success will depend upon rapidity of maneuver, armament, armor, and fire-power of tanks. Proper utilization of terrain, surprise, accuracy of fire, and training of personnel will be the important factors. If confronted by tanks of superior speed and power, combat would probably be avoided unless circumstances are particularly favorable. However, it must be remembered that bold leadership, skillful maneuver, and high morale may at times bring success to the weaker unit.

Conclusions

Fast tanks embody the most advanced thought of highly mobile ground weapons available to a first class nation.

Fast tanks will secure the following results:

(1) Effect increased demoralization among hostile troops, diminishing their opportunity for escape, and increase their prospect of being run over.
(2) Make hostile fire upon the tanks much less accurate.
(3) Afford hostile gunners time for but few shots while the tanks are closing upon them.
(4) Afford greater freedom as to the selection of the point to be assaulted by the tanks.
(5) Reach an important point earlier than the enemy, thus saving some important objective from destruction, or otherwise securing an advantage.
(6) Deprive the enemy of time needed for the organization of his defense in accordance with his normal plans.
(7) Increase the possibility of surprise to an important degree.
(8) Simplify the movements of tanks from a remote point to a suitable area from which to launch an attack.

Commanders and staffs must visualize early operations with only a very few mechanized units on hand, and at the same time evolve tactics for the employment of such fast tanks as soon as they have become available in quantity.

In any future wars the present slow tank will be entirely inadequate to the tasks required, and a mechanization and motorization program for our Army should be coordinated with mobilization plans.

The inevitable trend in modern warfare is toward greater speed of strategic maneuver; increased fire-power on the battlefield through the employment of weapons of much greater efficiency, with a resultant wider dispersion in tactical formations; and more power in the attack through utilization of combat vehicles invulnerable to small arms fire and capable of cross-country travel.

With fast tanks a maneuver of a range that would have been decisive at a critical time in the World War and that would have taken several days with the means available, can now be begun and completed in a single day. Modern formations cannot be used effectively until our higher commanders and commanders of lower units have developed what one may call "tank-time sense." Tank time is the correct time for figuring a move to a decisive spot. It gains time so quickly that it can gain a decision, and it is the only maneuver that has such promise in modern war.

The conditions of war are still such that fire which is directly applied at close range—as the fire of an armored force can be—is far more potent than indirect fire in battlefield reality.

Increased mobility of tanks will give to the more mobile Army the advantage of the initiative, including frequently the selection of the terrain of decisive battle.

The tactical and strategical maneuvers suited to the employment of increased mobility should receive special study.

Bibliography

1. *Report of the Chief of Staff*, United States Army, 1932.
2. *Report of the Chief of Staff*, United States Army, 1933.
3. *Tactical and Strategical Studies*, C. & G.S.S., Corps and Army, Chapter I, 1928.
4. *Review of Military Literature*, C. & G.S.S., September, 1933. Subject: Mechanized Brigade against an Infantry Division.
5. *The Infantry School Mailing List*, 1932-33, Volume VI, Chapters IV and V.
6. *The Infantry Field Manual*, Volume II—Tank Units.
7. Mimeograph. The Infantry School, Fort Benning, Georgia, 1933-34. Subject: Tactics of Fast Tanks.
8. *Military Engineer*, November-December, 1933. Subject: Mechanization of Combat Units.
9. *Tank Notes*, May, 1932. The Tank School, Fort George G. Meade, Md.
10. *The Army Quarterly*, England, April, 1933, Volume XXVI, No. 1.

To view "Tactical and Strategical Effects of the Development of the Fast Tank" as it was originally published in June 1935, visit https://www.armyupress.army.mil/Portals/7/military-review/Archives/English/JF-22/Original/Hobbs.pdf.