

WAR DEPARTMENT
Office of the Chief of Infantry
Washington

July 3, 1940

MEMORANDUM FOR: The Assistant Chief of Staff, G-3.

Subject: Antitank Doctrine and Development.

322.091

1. The development of a system of antitank defense ought to be based on a tactical study which would consider all the agencies involved. These include:

The passive means - antitank obstacles and mines
The antitank gun units
The armored divisions
Infantry (G.H.Q.) tanks

2. Two situations ought to be considered:

a. The armies in movement.

b. The armies in occupation of a defensive position.

3. a. For the purposes of this study, the passive means of antitank defense may be dismissed with the statement that their principal importance lies in supplementing and reinforcing the defense of the antitank gun units.

b. The missions of antitank gun units ought to be very carefully defined in view of their powers and limitations.

When not protected by natural or artificial defenses, antitank gun units are highly vulnerable. Hence in movement or caught in the open, they have little chance of success against foot troops firing from cover and none at all against armored vehicles. For this reason, they cannot be employed to counterattack armored vehicles. Their employment is restricted to fire from positions affording adequate defilade, occupied under cover from hostile tank attack, in time to anticipate arrival of tanks.

Moreover, the antitank gun units alone have little defensive power against foot troops or cyclists. Their positions can generally be easily turned and often rolled up from the flanks.

4. From the foregoing, it is believed the following conclusions are justified:

a. In defense antitank gun units are effective against serious attack only when protected by foot troops and when their flanks are covered by other troops or are otherwise secure.

b. When the foot troops protected are in movement, antitank units are forced to occupy successive positions, usually by echelon and by bounds; against large mechanized forces, this distribution is only in a very limited degree effective.

c. Antitank gun units, occupying positions and protected by foot troops, may be effectively used as a pivot of maneuver for armored forces.

5. In defense of a position, the antitank measures have three phases of tank action to meet --

a. The attack (by infantry and infantry tanks).

This has to be met by the antitank guns in position. There is little chance of moving reserve antitank units into position to protect the battle position after the attack has started.

b. A break-through.

This can only be met by armored units. Their action may be pivoted on antitank gun units. But unarmored antitank units cannot counter-attack.

c. The penetration (by the armored divisions after the infantry and infantry tanks have opened the gap).

This can only be met by armored units. Again, unarmored vehicles cannot counterattack. They can only form a pivot of maneuver for the armored divisions.

6. The following further conclusions seem justified --

a. The best antitank defense lies in the defeat of hostile armored forces by our own armored units.

b. Antitank units protecting a defensive position should, if present in sufficient numbers, be able to offer an effective defense. But they must be in position, not held mobile with a view to counterattack.

c. In defense antitank battalions of large units (divisions, corps, armies) are to be regarded as available as reinforcements for the antitank units of the infantry regiments in line, or they may be attached to armored units.

d. In movement (where the foot troops are especially vulnerable), antitank units cannot be present in sufficient numbers to insure adequate protection -- in this situation they are themselves, moreover, very vulnerable. Only armored units can afford protection to troops in movement.

7. The main conclusion to be derived from all this is that we must to a great extent rely on armored units for antitank defense and abandon our doctrine that tanks are to be used for offensive missions only. The form of action of tanks will always be offensive but their mission in respect to other troops may be defensive.

8. Reverting to the elements of antitank defense already discussed, it would seem that they should be combined in a system of antitank defense along the following lines --

a. For defense --

- (1) Regimental antitank units occupy positions, principally to cover the battle position.
- (2) Antitank battalions of large units attach elements to regiments in line as reinforcements in accordance with the situation; or they are combined with attached tank battalion(s) and the divisional infantry reserve to form a counterattacking reserve; or attached to armored divisions in army reserve.
- (3) Infantry-tank battalions, attached to infantry divisions in accordance with the situation and combined with reserve infantry regiments and antitank units as already described.
- (4) Armored divisions, reinforced where necessary by antitank battalions, employed as a counterattacking force against hostile penetrating armored divisions.

b. In movement --

- (1) The armored divisions move on the front or flanks of the army. They execute reconnaissance on the front of the advance, seek out the hostile armored mass and penetrate (through gaps) and envelop hostile forces. Their successful offensive action is the most effective antitank defense.
- (2) Regimental antitank units occupy successive positions by echelon and by bounds; they may be reinforced by rifle units and should be effective against minor inroads of hostile armored vehicles and afford some measure of delay against more important attacks.

- (3) Antitank battalions combined with tank battalions as in defense, and where necessary with divisional reconnaissance elements. Such force would cover the advance of the division on its most dangerous flank or on its front. The antitank units occupy successive positions by echelons and by bounds, forming pivots of maneuver for the tanks.

9. The above proposals contemplate a much wider distribution of the tanks than we have heretofore contemplated. We have always insisted that infantry tanks be completely massed in G.H.Q. reserve for offensive missions.

This doctrine was based on the small number of tanks available and to become available. They could only be effective if concentrated. But we have now to consider a situation where 10,000 would be a moderate estimate of our war necessities in tanks. Infantry tanks will be present in all parts of the combat zone suitable for their employment. Their presence will be as general as foot infantry. They are no longer to be regarded as a special weapon.

With this situation, it is clear that infantry tanks must be brought into closer relation with the foot infantry. Foot infantry and infantry tanks have complementary functions. Neither can function independently of the other. Foot infantry can take advantage of the cover of the terrain where tanks must expose themselves. Tanks are immune to hostile small-arms fire but are vulnerable to gun fire. They need the support of the infantry flat-trajectory fire to neutralize the hostile antitank guns. Terrain interdicted to tanks by natural or artificial obstacles must frequently be captured by foot infantry before a tank attack can be launched. Stream crossings cannot be forced by mechanized attack. Foot infantry, properly armed, can hold ground; the tank cannot, its action must be offensive.

It is also clear that the antitank battalions of large units must be brought into closer relations with tanks. Their limitations are too pronounced to permit of independent employment. The attempt to employ them in counterattack must be abandoned. They must be reduced to a static role.

10. There is serious present danger that our attempts to reinforce our means of antitank defense will proceed along mistaken lines. If we draw incorrect conclusions as to the reasons for the failure of antitank defense in the present European War, we may fail wholly to apply the proper remedy and waste our resources in the development of ineffective means. There were, it is true, some deficiencies in the materiel of French antitank units. But as a whole, this was not the dominating reason for the antitank debacle. It was rather the lack of effective mobile means of action. The antitank guns proved inadequate to meet a break-through, even against the most lightly armored tanks. Our remedy lies in providing more armored units, not in multiplying antitank gun units.

11. The place in organization of antitank gun units of divisions and higher units must be correlated with that of the armored units.

Since we may expect that armored divisions will be allocated to armies, there should be an antitank gun battalion, either as part of the armored division or as a separate army unit. An army should also have at its disposition the means of meeting the exceptional situation where the attack of heavy tanks must be reckoned with--75mm gun units. Such units, being of exceptional rather than normal employment, should not be an organic part of corps or divisions. A proposal to place these units in the divisional artillery cannot be defended for they have nothing to do with the artillery mission. This does not prevent the inclusion in the divisional artillery of 75mm antitank guns for local defense, especially if these guns can be used for other artillery missions; but such guns cannot be considered available for the general anti-tank mission.

Corps or divisions should have antitank units for two purposes:

- a. Reinforcing the static defense of the infantry regiments on the battle position.
- b. Reinforcing the mobile defense (counterattack) of attached tank units.

These units should be the normal antitank gun units (37mm). They should be provided at the rate of one company for the reinforcement of the battle position, and one company for each battalion which may be expected to be ordinarily attached to a division. The undersigned believes that two infantry-tank battalions may be considered as an average divisional assignment. Hence one battalion of three companies per infantry division may be considered as an adequate allocation.

The undersigned believes he has over-estimated rather than underestimated antitank requirements. He believes that priority should be given in all cases to the positive antitank action, the armored units.

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