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PECIAL SERIES, NO. 4 OCTOBER 17, 1942

THE GERMAN MOTORIZED INFANTRY REGIMENT

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MILITARY INTELLIGENCE SERVICE

WAR DEPARTMENT

Washington, October 17, 1942

SPECIAL SERIES No. 4

MIS 461

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FOREWORD

This is a translation of a captured German field manual on the tactics of the motorized infantry regiment and battalion when used as part of the German armored division. In accordance with the principle that "the chief task of motorized infantry is cooperation with tanks," the aim of the German command has been to weld their armored division into a homogeneous unit, and to mold the tactics of this division around the operation of the tank elements. These German instructions assume that the motorized infantry is equipped with support guns on self-propelled mounts, this equipment being adopted by the Germans as quickly as it can be designed and manufactured.

This document supplements *The German Armored Division,** which contains the German instructions for the armored division.

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* Information Bulletin No. 18, Military Intelligence Service.

GERMAN WAR OFFICE

Provisional Instructions for the Employment and Tactics of the Motorized Infantry Regiment and Battalion

March 1, 1941

Principles which are common both to motorized infantry regiments and battalions, and to infantry regiments and battalions, are not mentioned in these "Provisional Instructions." A knowledge of H. Dv.* 130/9, "Employment and Tactics of the Infantry," is therefore indispensable.

As long as the motorized infantry regiments and battalions are not (or only partly) equipped with armored personnel carriers, the instructions are valid only to a limited extent. This applies particularly to fighting from trucks. All cases in which employment and tactics are affected *fundamentally* by the lack of armored personnel carriers are indicated in the instructions.

**Heeresdienstvorschrift*, German (Army) training regulations.

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Section I. NATURE AND TASKS OF MOTORIZED INFANTRY

1. Motorized infantry units form the offensive infantry element in the armored division. Their strength lies in their speed and cross-country performance, together with the possession of numerous automatic weapons and protective armor.

2. The possession of armored personnel carriers enables motorized infantry units to overcome comparatively weak opposition without dismounting. They can follow up tank attacks on the field of battle without dismounting.

3. Motorized infantry is characterized by ability to alternate rapidly between fighting from carriers and fighting on foot, and also to combine these two methods of combat.

4. Mobility and the possession of numerous automatic weapons enable motorized infantry units to defend even a broad front against comparatively strong enemy forces.

5. Motorized infantry on wheeled vehicles moves faster than motorized infantry on armored personnel carriers, although in difficult country movements on wheeled vehicles are restricted. Owing to lack of sufficient armor, motorized infantry cannot fight from their trucks.

6. The chief task of motorized infantry is close cooperation with tanks. By following up closely they can quickly exploit the tanks' success.

7. Motorized infantry units also prepare the ground for the employment of tanks by clearing a way through country difficult or impossible for tanks. They will then bear the brunt of the fighting. In this their main tasks will be the following:

(a) Attack over tankproof sectors and rivers;

(b) Attack on an enemy in or behind tankproof country;

(c) Attack on a fixed position;

(d) Fighting in villages and woods.

8. Their greater speed compared with tanks enables them at an early stage to take possession of important points and sectors, to carry out wide and deep enveloping movements, or to pursue the enemy rapidly.

9. Motorized infantry units are organized into brigades. In the accomplishment of their tasks they are frequently reinforced by other arms—primarily antitank guns and artillery. Tank units may be attached to motorized infantry brigades.

Section II. WEAPONS AND THEIR PERFORMANCES

10. A motorized infantry regiment is equipped with the same kind of light and heavy infantry weapons as an infantry regiment. Some of these weapons can be fired from the personnel carrier. These are:

(a) A light machine gun in the antiaircraft pivot mounting,

(b) A light machine gun in the armored shield,

(c) A machine gun on armored mounting with telescope,*

(d) A heavy mortar.*

11. Firing from the carrier increases the effectiveness of the weapons. This improvement is due to the greater mobility, the constant readiness to open fire, the armor (which affords protection against enemy infantry fire), and the greater accuracy of fire.

12. The 50-mm antitank gun and the heavy infantry gun fire from self-propelled mountings.

13. The cross-country performance and armor, of this vehicle, together with the possibility of fighting from it, make the armored personnel carrier the chief fighting agent of motorized infantry. It can cover

*A projected development.

long distances rapidly and at the same time conserve the energies of the men. It can travel on all roads in any season. Its fording, climbing, and crossing abilities combine to give a high cross-country performance. Providing the ground is firm and level, the normal road speed can be maintained off roads and tracks. Its armor gives protection against small-arms fire, light infantry weapons, and shell splinters. The vehicles can therefore be brought up to the battle area and moved about under fire from enemy infantry.

Section III. INFLUENCE OF TERRAIN ON MOVEMENT AND TACTICS

14. A good network of roads and trails saves wear and tear of vehicles and makes rapid movement possible.

15. The state of roads and trails may change rapidly and appreciably under the influence of weather conditions, especially snow and frost, and through heavy use. This circumstance must be taken into account in planning and carrying out movements.

16. Gently rolling country which slopes away slightly toward the enemy and affords a measure of cover provides the most favorable conditions for an attack by motorized infantry in vehicle. It offers positions for fire halts on reverse slopes, and for good observation.

Steep inclines slow down an attack in vehicles. In surmounting rises the armored personnel carriers show up clearly on the skyline and afford sharply defined targets.

17. Hollows, valleys, and ravines are suitable for the assembly and forming up of vehicles if the neighboring high land is in our hands. They make an attack over a wide front more difficult. Valleys and

ravines running in the direction of the attack are blocked easily by the enemy.

In deploying and in attack, narrow valleys and ravines compel distribution in depth. On emerging from them, there is delay in resuming battle order on a broad front.

18. Marshes are practicable for armored personnel carriers only in winter when the ground is frozen.

19. Woods and mountains often present great difficulties for the movement of armored personnel carriers off the roads and trails. Deployment is possible only in thinly wooded districts and in wide and flat valleys.

20. Villages and woods restrict the movements of infantry on motorized vehicles. Barriers and obstacles are likely to be encountered suddenly and unexpectedly. Villages and woods favor close attacks by the enemy.

Section IV. PRINCIPLES OF FIRE EMPLOYMENT

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21. Their armor and cross-country mobility allow heavy weapons to be used at close range and from the most effective angle, and also enable fire to be concentrated quickly on crucial spots.

22. Motorized infantry, by virtue of its speed and maneuverability, can readily adapt its fire to suit any situation. Fire superiority so gained can be exploited more rapidly in vehicles than on foot.

23. The splinter-proof armor of its transport vehicles allows motorized infantry to follow closely behind the burst of its own artillery fire.

Section V. PRINCIPLES OF TACTICAL EMPLOYMENT

24. The speed and mobility of motorized infantry call for speed and agility in the thought and actions of its commanders, who must be daring and have the faculty of translating decisions quickly into brief commands. Personel reconnaissance and quick appreciation of the situation are necessary. Preoccupation about the flanks, which are often deep, must not impair boldness of action.

25. Careful study of maps and the ground must precede entry into action. Air photographs may furnish valuable data for the assessment of the ground. Early reconnaissance must complete quickly its estimate of the situation. Before an action subordinate commanders will be informed promptly of the plans, so that they can familiarize their units with their tasks and can take appropriate action under changed circumstances.

26. The coordination of force to give uniform and simultaneous action is indispensable. Every dispersion of units weakens the attack. Rapidity in carrying out movements, and concealment of movements, above all against enemy air reconnaissance, are the prerequisites of surprise.

27. Commanders must always aim to utilize mobility for thrusts against the enemy's flanks and rear. The objectives will be so placed that unity of command is maintained.

28. In attacks against a demoralized enemy on a wide front, in opposed river crossings, in pushing forward through wooded and mountainous country, in overtaking the enemy, and in withdrawals, the temporary formation of small task forces may be an advantage. Each force must be equipped with the arms it needs for carrying out its task.

The smallest task force is the company strengthened by heavy arms, artillery on self-propelled mountings, antitank guns, engineers, and frequently also tanks.

30. The infantry cannon company will be used by the regimental commander to support the battalions in battle. By rapidly building up a concentration of fire he is able to influence the battle at the decisive point. Subordination of individual platoons of the cannon company to the battalions is necessary when fighting on a wide front, in close country, and when the battalions are employed independently.

31. Where only a few companies in the motorized infantry units are equipped with armored personnel carriers, they must be used *en masse*. Preferably these companies will be allotted tasks in which the carriers are utilized fully as fighting vehicles. Such tasks may be:

(a) Reconnaissance (fighting);

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(b) Taking possession of important areas while fighting against a weak enemy;

(c) Delaying an enemy approach;

(d) Carrying the battle deep into the enemy position, after overcoming his antitank defenses;

(e) Accompanying a tank attack.

32. In order to conserve the valuable fighting powers of the armored companies they should not be used as covering parties on the march, nor split up into separate reconnaissance patrols. It is equally inadvisable to weaken these companies by allotting single armored carriers to other units and headquarters.

33. *The place of the regimental and battalion commanders is well forward.* On the march they and the first echelon of their headquarters will, as a rule, be behind the company farthest forward. *During the fighting the commander's place is in the center of the battle.* Here, by personal participation at the right moment, he will often achieve decisive successes. When the regiment is following a tank attack in its vehicles, the regimental commander will move in front of his regiment in the vicinity of the commander of the tank unit.

34. Before the battle, if time permits, it is often convenient to issue orders in writing. *A written order must always be given when this is the only way of insuring the collaboration of all arms.* During the battle the commander will give short, single orders.

The most convincing and effective order is that

given orally on the spot. The place from which orders are to be issued must be reconnoitered and made known in advance.

35. Orders must always be given first to those units and arms which require the longest time to prepare for action.

36. The regimental motorcycle platoon will be used for communication with, and the transmission of orders to, battalions, and also for the reconnaissance of routes and the regulation of traffic. In battle, communication between regiment and battalions, and between battalions and companies, can be maintained by radio as well as by orderlies on motorcycles and on foot.

37. The concealment of radio traffic is particularly important. In principle, radio messages are to be encoded if the time required to put them into effect allows the enemy to take countermeasures. Radio messages dealing with measures to be taken immediately are sufficiently camouflaged by the use of the "thrust line" * and code first laid down by the division.

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* "Offset method in which a secret line is drawn north and south, or several degrees from the north-south line, on a map. Points are designated in inches up from the bottom of the map and right or left from the line. Example: A point 10 inches up the map and 3½ inches to the right of the line is described as 10 R 3.5." Cf. *FM 18–5, Tank Destroyer Field Manual*, paragraph 231.

Section VI. RECONNAISSANCE AND OBSERVATION

38. Reconnaissance must be carried out as early as possible to gain the initial advantage over the enemy.

39. Reconnaissance must be rapid. Commanders must be determined to push forward at all costs.

40. Normally, clear information about the enemy can be obtained only by fighting. Bold and resolute action is necessary. The strength of reconnaissance patrols and their composition vary with the task, the enemy, and the time at the disposal of the patrol. As a rule, they will not be less strong than a squad.

41. The more obscure the situation and the closer the country for reconnaissance, the more patrols must be used.

42. As a rule, it is wrong to hold up the advance of a unit by waiting for the results of reconnaissance.

43. Unit commanders must exchange important data obtained from reconnaissance and observation.

44. Units must always endeavor to listen in to reconnaissance reports radioed by the divisional reconnaissance unit and air reconnaissance *Staffel.**

45. The regimental commander organizes close reconnaissance during an action in order to obtain

* Squadron, about 9 airplanes.

data on which to base the employment of his regiment. In addition, the battalion commanders keep themselves continuously informed about the enemy and the terrain by close reconnaissances.

46. Close reconnaissance must begin at the latest with deployment. Once contact with the enemy has been established, it must not be lost.

47. Close reconnaissance must also be carried out during the night. It may provide data for the conduct of the battle the next day. Moreover, it harasses the enemy.

48. Until motorized infantry units are equipped with reconnaissance tanks for combat reconnaissance, they have the following means at their disposal:

(a) Reconnaissance patrol on armored carriers;

(b) Motorcycle reconnaissance patrol;

(c) Reconnaissance patrol by bicyclists and on foot.

Motorcycle patrols are especially mobile and fast. Their disadvantage lies in their vulnerability and in the difficulty of maintaining good observation while in movement.

Armored carriers, because of their armor and cross-country performance, are particularly suitable for reconnaissance.

49. The object of close reconnaissance, during battle, by motorized infantry is to locate in good time:

(a) Enemy antitank weapons;

(b) Obstacles, primarily mine fields, gas-contaminated areas, and improved natural obstacles;

(c) Enemy tanks;
(d) Natural obstacles.

Furthermore, it is important to locate flanks and gaps in the enemy positions.

Patrols should endeavor to bring in prisoners. Detailed information about the enemy may be obtained from them.

50. Every reconnaissance patrol must be acquainted with the general situation and intended line of action. It must know how far it can advance without the likelihood of contacting the enemy; where the enemy *may* be encountered and where he will *certainly* be encountered.

51. In addition to any other tasks, every reconnaissance patrol will reconnoiter the terrain. Information about the terrain is always of decisive importance. In particular, the state of roads and tracks, and the carrying capacity of bridges, must be reported. Defiles, gradients, natural obstacles, and marshland must be mapped. Alternative approaches are to be explored and reported without delay.

52. *Before going into battle every commander must endeavor to look over the terrain personally.* In the rapid course of movements, the commander must therefore always choose his place well forward to enable the carrying out of timely and repeated personal reconnaissance.

53. When fighting is carried out on foot, the adjutant will arrange for the field of battle to be under continual observation.

Section VII. MOVEMENT

54. Good march discipline is essential for the smooth and rapid execution of movements. To prevent delays on the march, timely reconnaissance of the route is especially important. Reconnaissance patrols will be sent ahead for this purpose.

55. On good roads free from traffic, a regiment of armored motorized infantry can cover from 150 to 200 kilometers in 24 hours. Motorized infantry on wheeled vehicles can cover from 250 to 350 kilometers in 24 hours.

56. Marches are carried out in accordance with the principles laid down in *H. Dv.* 472 and the instruction *O. K. H. Gen. St. d. H. Ausb. Abt. (I) Nr. 2600/40 geh. vom 12.12.40.*

57. Tracked and wheeled vehicles must be kept separate as far as possible in order to reduce vehicle strain and to allow the march to proceed smoothly.

With the tracked vehicles go the vehicles of the command group, and of signal, repair, and medical services, and also the essential fuel and ration trains.

58. March orders should contain:

(a) Information about the enemy;

(b) Own mission;

(c) Route and destination;

(d) Reconnaissance and protection;

(e) Line of departure and time;
(f) Order of march (including special instructions for baggage trains and for repair and medical services);
(g) Halts and rests;
(h) Commander's place, and special instructions for communication;
(i) And, at night, the degree of illumination ordered by division.

In issuing orders, it should be borne in mind that in view of the wide area in which troops are usually quartered, often more than an hour elapses between the issue of orders and the start of the move. Accordingly, warning orders should be issued whenever possible, giving the expected time and direction of march, or time and place of assembly.

The art of command consists in disposing units so that they can take up their places in the column without lengthy interruption of the move, and without interfering with the movements of other units.

59. It is a good plan to lay down the maximum speed at which the leading vehicle will travel. For armored personnel carriers this will normally be 15 miles per hour.

Unarmored motorized infantry units can travel on good roads at speeds up to 20 miles per hour for the leading vehicle.

The situation may call for higher speeds than is normal for the vehicles, in which case some severe strain and breakdowns must be allowed for.

60. When the motorized infantry regiment forms a march column inside the division, the commander is responsible for the speed and continuity of movement and for leaving the roads free by the time ordered. In accordance with the divisional order, he orders halts and rests, provides protection and camouflage during these periods, and arranges for vehicles to refuel.

When a march column has been allotted a separate route, it may also be required to organize reconnaissance, protection, and route-marking. During a halt, units move off the road and remain there, camouflaged as much as possible, ready to resume the march without delay.

Roads and ground may make it difficult or impossible to move forward or to deploy rear elements of the column. Consequently, the heavy weapons and artillery must be placed behind the advance elements so that, in the event of contact with the enemy, heavy fire can be brought quickly to bear. Attached engineers are to be placed well forward in the regiment.

61. Communication on the march will be maintained within the regiment by means of motorcycle messengers.

62. If antiaircraft machine-gun units are attached to the regiment, provision must be made for their timely use at danger spots such as bridges and defiles.

63. If the formation is equipped with only a few companies on armored carriers, these companies are to be kept behind on account of their slower speed.

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64. When the regiment is marching alone, or as an advance guard, it will, as a rule, detach a reinforced company for its protection. To this company, heavy weapons, especially antitank guns, will be attached.

65. The heavy infantry cannon company will march, usually, with the foremost battalion.

66. For protection against enemy armored vehicles the antitank weapons must be distributed throughout the entire length of the column.

67. Protection and march intervals vary with the situation, visibility, and probable enemy tactics. They are laid down in minutes.

A general guide is:

From the leading company to the foremost battalion	5 min.
Between battalion	5 min.

68. When a motorized infantry battalion is detailed as an advance guard, the principles given in paragraphs 64–67 apply.

69. If reconnaissance shows that a detour can be made around an obstacle without much loss of time, the advance guards will bypass the obstacle, leaving its removal to those behind.

70. Security against enemy air attacks during moves by day demands the utilization of broken ground, and considerable dispersion of the formation.

Section VIII. DEPLOYMENT AND DETRUCKING

71. Attack is preceded as a rule by deployment. Deployment increases readiness for action and enable units to adopt formations best adapted for the coming operation. The order to deploy is given usually by a higher commander. It can also be given by the regimental or battalion commander when he commands an advance guard or an independent column.

If a formation of motorized infantry is surprised by the enemy, or forced off the road by enemy aircraft or artillery, it will deploy on the order of its commander or of the local commanders. The deployment will usually be carried out on the move.

72. In deploying the units, *roads and trails must be utilized as far as possible,* in order to advance quickly and to save wear and tear on the vehicles. The cross-country performance of all vehicles in the regiment, however, allows movement to be continued off the roads and tracks without any great reduction in speed, unless the terrain offers considerable obstacles.

When the tactical situation allows it, commanders during deployment will move in front of their units

until the latter have taken off the positions allotted to them, after which they will join the forward companies.

Advanced headquarters follows the commanders; rear headquarters follows behind the unit.

73. When time is short, deployment will be carried out on signals; otherwise, on orders.

74. In deploying a regiment, battalions may be placed side by side, one behind the other, or echeloned.

In deploying a battalion, company commanders will lead their companies as far as possible in close order until allotted positions are reached, and then only will they deploy their units.

75. The formations adopted when advancing deployed depend upon the mission, the ground, and the anticipated enemy resistance. When the situation is obscure, the troops will, as a rule, be moved up in a narrow, deep formation. If information about the enemy and the mission give clear indication regarding the conduct of the battle, battalions or companies can be moved up side by side in deployed order.

The choice of formation to be adopted by units will be left to their commanders. Companies will remain as long as possible in narrow, deep formations in order to reduce the difficulties of moving across country and to escape observation.

76. The formations adopted by motorized infantry on wheeled vehicles are to a great extent dependent on the terrain. They will make considerable use of the roads.

77. A battalion mounted on vehicles can be signalled to adopt either of two formations:

(a) Battalion arrowhead formation;

(b) Battalion inverted arrowhead formation.

(For an example of battalion deployment, see Appendix 2.)

Other formations can be ordered when required by the terrain and situation.

78. In *battalion arrowhead formation,* one company occupies the front line, and two companies the second line.

In *battalion inverted arrowhead formation,* two companies are in the front line and one company in the second line.

79. Appendix 3 contains a guide for the distances and intervals to be maintained between units. At night, and in wooded country, there must be close contact.

80. The machine-gun company and the heavy weapons company follow behind the motorized infantry companies. Their commanders hurry forward immediately after deployment to the battalion commander, who will issue orders regarding the positions companies are to occupy, or regarding protection.

81. Antitank guns allotted or attached on the march will remain with companies during deployment, unless the situation demands the concentration of antitank defense.

82. The order to deploy will, in general, contain:

(a) Enemy and own situation.

(b) Decision,

(c) Reconnaissance,

(d) Orders for

(1) the forward battalions or companies—if necessary, orders to occupy important topographical features;

(2) the units with support weapons, regarding protection of the advance in deployed order;

(3) the battalions or companies which are to follow in rear—if necessary, instructions for reconnaissance and protection of the flanks.

(e) The disposal of forward transport.

(f) The position of the commander.

(g) Communications.

83. Battle reconnaissance must be initiated at latest with the commencement of deployment. When deploying on signals, each company sends out a patrol to the front and to an open flank. The patrols remain within sight. These patrols must be supplemented as early as possible by a full-scale reconnaissance.

84. If the units ordered for the deployment are lost, they will be regained during the advance.

If after deployment a force is compelled to pass through a defile there must be no bunching either in front of or on the far side of the defile. To prevent

this from happening, the force will be dispersed in depth in good time. On coming out of the defile, the original formation must be resumed.

85. When advancing deployed, the motorized infantry units remain on their vehicles as long as enemy fire and the ground permit. If single enemy antitank weapons are encountered, they must be quickly neutralized by heavy weapons on self-propelled mounts and antitank guns. If battle reconnaissance reveals that obstacles occupied by the enemy cannot be avoided by a detour, detachments will dismount and attack on foot, while the remaining forces keep under cover in their vehicles.

86. Observed enemy artillery fire and extensive natural obstacles usually compel the whole formation to dismount and to advance deployed.

87. The decision to dismount is, as a rule, left to the company commander.

88. The commanders of formations order dismounting only if their knowledge of the general situation leads them to suppose that fighting on vehicles holds no prospect of success and they have decided to launch a general attack on foot.

89. Armored motorized infantry companies generally undertake their own protection when dismounting. Unarmored motorized infantry must be protected during dismounting by heavy weapons, especially antitank guns.

Section IX. ATTACK

A. GENERAL

90. The main aim of the commander must always be to utilize armor and speed to deliver surprise blows against the enemy flanks and rear, and to penetrate known weak points in the enemy line.

91. The commander must be able to meet a changed situation quickly by throwing in a mobile reserve. Such a reserve can quickly restore mobility to dismounted troops held up by strong enemy resistance. The armored carriers approach as close as possible and transport the troops to another point.

92. The heavy weapons on self-propelled mounts must be handled with the same flexibility so that concentrated fire can be built up rapidly and transferred.

93. The mobility and cross-country performance of units allow the regimental commander to use the battalions for an attack delivered from the column of march, little time being lost in waiting for the rear battalions to move up.

94. When motorized infantry attack in collaboration with tank units, their tasks, the objectives, the nature of the cooperation, and, above all, the degree of mutual support will be laid down by a higher com-

mander. He decides whether the motorized infantry will clear a way for the tanks, support them by simultaneous attack, or follow them to exploit their success.

B. ATTACK WITHOUT DEPLOYMENT

95. The object of attacking without previous deployment is to seize quickly and by surprise terrain features of decisive importance for the attack. As armored personnel carriers are particularly suited for this work, this is essentially a task for the motorized infantry of the armored division. Rapid and determined onslaught is the basis of success.

96. Unless otherwise ordered, the attack will be carried out on vehicles. Dismounting takes place when no further advance is possible. The decision to fight on vehicles or on foot is as a rule left to the company commander. When it appears impracticable to continue fighting on vehicles, a resourceful commander will always look around for the possibility of continuing the attack on vehicles at another point.

97. In attacking on vehicles, the heavy weapons on self-propelled mounts must follow close behind so that they can quickly support the attack.

98. For protection against enemy tanks, the antitank guns in the battalions will generally be attached to the forward companies. Attached antitank units will usually be held behind the flanks, in order to exploit fully their speed and mobility in surprise thrusts against enemy tanks.

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99. When battalions attack an objective from different directions, or attack separate objectives, the weapons (heavy infantry cannon, antitank guns, engineers) that they require for their separate operations will be placed at their disposal. The same principle applies to companies attacking separately.

100. In close country, motorized infantry companies will have attached to them heavy mortars and antitank guns. The two machine-gun platoons of the machine-gun company, and the gun platoon of the heavy weapons company, will cover the attack of the advancing infantry companies. It is convenient to put the machine-gun company commander in charge of the heavy weapons unless these are attached to the companies. The engineer platoon follows the attacking motorized-infantry companies on vehicles. When obstacles are likely to be encountered, engineers will be attached to the forward companies.

101. The regimental or battalion commander must issue orders sufficiently in advance, in order to insure cooperation with supporting arms. *Responsibility for command must be clearly stated.*

102. Commanders of weapons attached or in support (artillery, engineers, antitank units) will move well forward during the attack in armored personnel carriers—unless they have their own armored carriers—so that they will always be near the commander. The same applies to forward observers if they have no armored observation cars at their disposal.

103. The most important task of battle reconnaissance is the timely location of enemy antitank weapons and obstacles, especially mines.

104. A regiment or battalion is organized for a mounted attack according to the principles laid down for deployment. The battalion commander travels sufficiently well forward to have a good view of the battlefield and to retain an influence on the use of the heavy weapons. Any other organization is permissible if it increases the battalion fire power.

105. The frontage adopted by a dismounted motorized infantry battalion in the attack is frequently identical with that adopted in deployment.

106. Motorized infantry attacking in vehicles must take every advantage of cover afforded by the terrain and of fire positions on reverse slopes.

107. In attacks which are not preceded by deployment, *fragmentary orders* are the rule. These should contain:

(a) Enemy situation;
(b) Own decision;
(c) Objective;
(d) Task of formation or unit;
(e) Organization for attack.

108. In mounted attacks, it will often be necessary shortly before the enemy is engaged to regain the battle formation that has been lost in moving over difficult ground. This will be carried out behind the last available cover. Speed must be temporarily reduced, or a short halt made.

109. After a breakthrough, rapid and extensive battle reconnaissance is important, especially on the open flanks.

110. An attack on foot must be carried out according to the principles of H. Dv.130/9 "Infantry Tactics." When to dismount and what units are to dismount must be decided according to the principles given in paragraphs 85–89.

C. PREPARED ATTACK

111. If the enemy has time to make preparations for action and the ground is such as to preclude a mounted attack, the motorized infantry will be assembled for attack. The assembly order is usually given by a higher commander.

112. As far as possible the motorized infantry units should be moved up in vehicles to the assembly position. Their armor and cross-country performance make it possible to assemble close to the enemy. If the ground, or enemy fire, does not allow this, or if surprise is aimed at, a line can be laid down beyond which the vehicles may not go.

113. The armored personnel carriers remain, as a rule, in the assembly positions. If the troops are dismounted beforehand, the vehicles usually remain where the troops dismount.

Often the regimental commander must allot motor parks for the vehicles in order to prevent concentration of vehicles and interference with the movements of other units, especially tank units.

The tasks of the motor officer, and the procedure for organic transportation, are laid down in Section XV.

114. Surprise can be achieved by moving into the assembly positions at dusk or in darkness.

115. Commanders will send out, sufficiently in advance, parties under command of an officer to reconnoiter the ground and enable the troops to assemble in their allotted positions in the minimum time.

116. *The order to the reconnaissance patrol* must contain:

(a) Enemy situation;

(b) Intended line of action;

(c) Intended assembly positions and approaches;

(d) Definition of the line which must not be crossed by vehicles;

(e) Moment at which troops will move into the assembly position.

117. Unless protection is taken over by other forces, assembly positions must be protected against enemy reconnaissance and surprise attack by means of outposts. Above all, provision must be made for defense.

118. All the preparations required for the conduct of the attack will be made in the assembly position. These are:

(a) Detailed reconnaissance of the ground over which the attack is to be made;

(b) Removal of artificial and natural obstacles in and immediately in front of the assembly positions;

(c) Acquisition, by means of battle reconnaissance, of all data required for the conduct of the attack;

(d) Establishment of contact with the commanders of the supporting and accompanying weapons;

(e) Establishment of contact with any commanders of units who are already in contact with the enemy in the zone of attack.

Information gained from reconnaissance by all arms concerning terrain, enemy centers of resistance, and especially the position of antitank weapons and artillery, must be fully utilized.

119. Company commanders and as many subordinate commanders as possible should be personally shown over the ground, providing this does not betray the plan.

120. To prevent the enemy from getting a warning of an impending attack from radio traffic, radio silence will be observed within the regiment in the assembly position.

121. As a rule, a mobile reserve will be kept. The commanders of this reserve will reconnoiter approaches, and will hold their forces in readiness so that they can be quickly utilized. The location of the reserve depends upon the ground, the enemy's fire, and the intended tactics.

122. The launching of an attack on foot, the penetration of the enemy position, and the subsequent fighting are carried out in accordance with the principles given in H. Dv. 130/9.

123. As soon as the enemy antitank defense has

been crushed, the battalion commander orders vehicles to move up. The attack is continued until the vehicles arrive. Unarmored motorized infantry will bring up their vehicles only when the enemy fire allows.

124. When motorized infantry follow tank units, they usually assemble behind the tanks, mounted on their vehicles. The motorized infantry should move out of their assembly position in the formation in which they are to follow the tank attack. If the ground does not allow this, a short halt must be made after they have left the assembly position.

D. COOPERATION WITH TANKS

125. When motorized infantry units have to clear a way for tanks through obstructed country, they attack on foot in advance of the tanks. Their object is, by constant concentration of their forces, to force a breach rapidly in the enemy main line of resistance and make lanes for the tanks. Engineers will be placed under command of the forward attacking companies.

The first objective is the far side of the tankproof ground. When this is reached, the motorized infantry must push on to keep the exits open for the following tanks.

126. If motorized infantry and tanks have to attack simultaneously, the task of the infantry is to produce the maximum fire power of all weapons at the decisive moment by adopting a broad attacking formation. The main concentration of fire will be on

the antitank weapons, to allow the tanks to gain ground quickly. Before the enemy position is assaulted, natural and artificial obstacles to the front will be cleared. The assistance of engineers will usually be necessary for this task.

The attack is carried out on foot. After the enemy has been disabled by the fire of the tanks, the motorized infantry will assault the enemy position. Mobile reserves on vehicles will be held ready to follow up and exploit rapidly a successful tank attack.

If the motorized infantry units have orders to follow the tanks on foot and to break through the enemy position immediately behind the tanks, they must take advantage of the disablement of the enemy, caused by the fire from the tanks, to make a determined assault. The same applies when tanks are sent through motorized infantry to help in their advance. Infantry units utilize the time before the tank attack to prepare themselves for the common battle.

The fire of all weapons must support the tanks by concentrating on the enemy antitank weapons.

While the tanks engage the enemy's attention, commanders of all ranks must spur their men forward for the assault. Some of the heavy weapons (especially those on self-propelled mountings) and armored carriers, join the tanks and move forward rapidly to alternative positions.

When, in collaboration with the tanks, the enemy antitank weapons have been accounted for, mobile re-

serves of motorized infantry advance, keeping in close contact with the tanks. The vehicles of the dismounted troops are moved up. Every unit entrucks on the battlefield and follows the tanks independently.

127. If tanks are put under command of motorized infantry to prevent an enemy recovery or to destroy particularly troublesome pockets of resistance, they must only be employed *en masse;* their offensive power must not be split up. They will clear the way for the infantry by short advances with limited objectives and in close cooperation with the infantry.

128. If the ground favors an attack by tanks and if no tank obstacles have been detected inside the enemy main line of resistance, the task of the motorized infantry units will usually be to follow the tank attack. They will remain on vehicles behind the tanks so that they can quickly exploit the success of the tanks. Narrow and deep formations, will be the rule, in order to avoid as far as possible the effects of enemy artillery fire and to retain a mobile reserve in rear of the foremost units.

Pockets of resistance and defense areas which the tanks have not reduced will be dealt with as encountered. For this, dismounting may be necessary. The remaining infantry will continue to follow up the tank attack in their vehicles. Contact with the tanks must never be lost.

Antitank troops will, as a rule, be used for the protection of an open flank.

Section X. PURSUIT

129. The speed and mobility of motorized infantry can be used with particular advantage in pursuit, to prevent the enemy from building or occupying a new defense line, to overtake him, or to forestall him by occupying certain areas.

130. If the enemy gives ground, he is to be pursued relentlessly even through the night until he is completely destroyed. The commanders will spur on their men to greater efforts by personal example.

131. Units in pursuit will be given strategical objectives, accessible as far possible by road.

132. An enemy resisting weakly will be engaged from the armored personnel carriers. If the enemy offers strong resistance, a detour will be made and the succeeding troops left to deal with it, unless this course is impossible because of the ground or because it involves too serious a danger.

133. In order to carry out pursuit on a broad front or to be able to dispatch a force to overtake the enemy, task forces are frequently formed. Principles governing their composition and use are laid down in pamphlet D 66 "Handling of the Armored Division."*

* See the translation published by the Military Intelligence Service as "The German Armored Division," Information Bulletin No. 18, June 15, 1942.

134. If in its pursuit the unit has pushed deep into the enemy lines, march bivouacs will be formed at night or when resting to give strong all-around fire.

Tank-proof localities and areas affording cover and good observation are especially suitable for bivouacs. To avoid heavy losses from bombing and shelling, vehicles must be dispersed. Covering patrols on foot will be sent out. Defensive fire will be put down from armored carriers on a signal from a patrol.

Section XI. DEFENSE

135. Motorized infantry can be used for defense on a broad front. When used in this role, they will as far as possible hold "topographical sectors." The width of the sector may necessitate the division of the force into groups.

136. Mobile reserves will be held in readiness to launch a rapid counterattack at crucial points.

Detailed reconnaissance and preparation are indispensable. Roads and trails will be reconnoitered and marked quickly, so that, especially at night, mobile reserves can be thrown in rapidly.

137. Outposts will be strengthened by heavy weapons, in particular antitank weapons, and by artillery and engineers.

138. The mobile employment of elements of the motorized infantry, especially the heavy weapons, deceives the enemy as to the strength of the forces facing him and makes it difficult for him to locate and engage these weapons. This also applies to delaying forces.

139. Even single heavy weapons on armored personnel carriers can, on suitable ground, keep up a mobile fire.

140. The frontage of a motorized infantry battalion in defense may be twice that of an infantry bat-

talion—from 1,600 to 4,000 meters and even more, depending on the situation and the terrain.

141. The vehicles of units engaged in the defense will be placed sufficiently far back to be out of range of fire from the enemy main line of resistance.

Alternate positions and routes will be allotted to motor columns to enable them to withdraw from enemy fire.

Section XII. BREAKING CONTACT*

142. If motorized infantry have to break contact, their armored carriers enable them rapidly to outdistance any nonmotorized, unarmored pursuit.

Counterattacks with limited objectives are most effective in assisting disengagement. The mobility and speed of infantry on vehicles must always be exploited to deliver the counterattack from an unexpected quarter.

143. Disengagement from enemy tanks is made easier if time is available to build up strong defensive fire in a position in the rear which has good natural antitank defense.

144. Vigilant reconnaissance on the flanks and well-timed use of flank protection—preferably attached antitank troops and engineers—are necessary to prevent envelopment by highly mobile enemy forces.

145. The commanding officer lays down the order of withdrawal, the supporting tasks for heavy weapons, and the time for breaking contact.

146. As a rule, the armored personnel carriers go forward and bring in the infantry as they disengage. If this is impossible owing to the tactical situation or

* Cf. FM 17-20, Armored Force Field Manual, Employment of Armored Units, Reconnaissance Platoon and Company, par. 51.

the ground, the infantry falls back on to its vehicles on a broad front, making full use of terrain cover. The vehicles of unarmored motorized infantry can move forward only as far as the last cover.

147. In order to impose the maximum delay upon the enemy, the withdrawal of heavy weapons on armored personnel carriers or self-propelled mounts can be left to the last.

Even after disengagement of the heavy weapons, fighting patrols will remain in contact with the enemy.

148. The use of smoke assists disengagement. It conceals the time and direction of the withdrawal.

149. The rear guard will have attached heavy weapons units on self-propelled mounts, antitank troops, and engineers. The engineer platoons will support the withdrawal of the rear guard by erecting obstacles and blowing up bridges. The order to lay mines will be given by division.

150. The commander will insure by planning and the *timely* issue of orders that units withdrawing on a broad front are concentrated quickly into march columns. Traffic congestion will be avoided by careful traffic control.

Section XIII. FIGHTING UNDER SPECIAL CONDITIONS

A. ATTACK AGAINST FIXED DEFENSES

151. An attack against a fortified position is carried out according to the principles laid down in "Infantry Training" and in the pamphlet "Attack against a fortified front."

152. Mobile elements consisting of assault detachments in armored carriers should be kept in reserve to press on quickly through gaps or lanes, and to attack the emplacements from behind.

153. Reconnaissance of artificial and natural obstacles well inside the enemy's lines is of particular importance in safeguarding against the premature use of infantry in vehicles.

154. Frequently single tanks and heavy antitank weapons are attached to motorized infantry, chiefly for use against concrete emplacements.

155. Cooperation with the supporting arms, artillery, and aircraft, must be insured by consultation with the commanders of these arms. On the basis of this consultation, the battalion commander allots tasks and informs the other arms of his requirements: the use of smoke and neutralizing fire against em-

placements on the flank or further in rear, and the destruction of the enemy holding intermediate positions and of particularly troublesome pockets of resistance.

B. OPPOSED RIVER CROSSING*

156. Attacks across rivers can often be avoided by forcing a crossing by a sudden and unexpected movement or by seizing a bridge. A sudden and unexpected movement relies upon surprise for its success.

157. Bold and resourceful action must be taken to gain possession of several crossings at the same time. Success is frequently achieved more quickly at less important crossings than at the main crossings, which are usually more strongly defended.

158. An opposed river crossing will be carried out by motorized infantry in accordance with the principles contained in "Infantry Training."

159. Immediately behind the first wave the heavy weapons, especially antitank guns, will be moved across.

160. Heavy weapons on self-propelled mounts and on armored personnel carriers, and also any single attached tanks, will support the attack by mobile fire from the near bank.

161. Crossing places will be kept clear of vehicles. Motor columns will cross when a bridge has been completed. A dispersion line will be laid down by the higher command, who will also appoint a regulat-

* See FM 17–20, par. 54.

ing officer to control the order in which troops are to cross. The regulating officer must be given his instructions sufficiently in advance.

162. Small streams are bridged by track bridge equipment carried in the units.

C. FIGHTING AT NIGHT OR IN FOG

163. The difficulty of keeping units together in darkness and in fog compels organization in depth and the closing up of intervals. Messengers will maintain communication between units.

Heavy weapons, particularly antitank units, will be placed well forward to guard against sudden contact with enemy antitank defense.

164. At night and in fog, the enemy will be attacked from one direction only, in order to prevent fighting between one's own troops.

165. As a rule, the attack will be conducted dismounted and along roads, water courses, and ridges which may be used as landmarks. Mounted detachments may be used in the attack to give support from their vehicles.

166. The advance in deployed order and the attack will be carried out in bounds.

D. VILLAGE FIGHTING

167. The motorized infantry units are mainly responsible for clearing villages which lie in the path of an attack by the armored division. Engineers armed with explosives and flame throwers can give

valuable support. Heavy weapons, single cannon, and attached tanks facilitate the task of the infantry.

168. While the enemy is held by a frontal attack from a weak force, or is pinned down by fire, detachments, mounted if possible, outflank the village in order to break the enemy resistance by an attack from the flank or from the rear.

169. A village may be attacked frontally only if the tactical situation or the terrain makes outflanking impossible.

170. Cooperation between the heavy weapons and artillery and the forces attacking frontally or from the flanks will be insured by the commander of the unit. Fire will be directed against the outskirts of the village, and the enemy will be blinded frontally and on the flanks by smoke and subjected to annihilating fire at the point chosen for attack. The use of incendiary ammunition against buildings frequently produces decisive results.

171. Attack from an unexpected direction, carried out with speed and supported by concentrated fire from all weapons against the point of attack, leaves the enemy no time to reorganize his defense. By these tactics enemy resistance in villages can be broken quickly.

172. When an attack is made against a town, the infantry must be organized for street fighting. As a rule, a massed company with attached heavy weapons will be employed to deal with a row of houses. For fighting in built-up areas, the battalion must be or-

ganized in depth. It may be necessary to use a battalion with attached troops along a single street.

173. Attached engineers and the engineer platoons will be used for removing obstacles and making breaches. They will be attached to the leading companies. Attached flame-thrower sections are especially suited for mopping up houses and hiding places and for setting fire to villages.

174. Enemy counterattacks from side streets will be held by fire until they can be broken up by fresh forces.

175. The battalion commander will enter the town with his leading company and will use the companies following in rear as the situation requires. After forcing their way through the town the troops will be reformed and the houses cleared of the enemy unless this task is taken over by the following forces.

176. After removing obstacles the dismounted infantry will return to their armored transport vehicles so that they may regain quickly their mobility. In the case of infantry with unarmored vehicles, this must not be done until there is no further danger from enemy fire.

E. FIGHTING IN WOODS AND MOUNTAINS

177. Woods and mountains restrict movement. The advance will therefore be made in depth along roads and tracks. The practicability and width of forest tracks must be reconnoitered in advance. Study of maps alone is not enough as forest tracks change frequently.

Attacks through woods and mountains will also be carried out along the roads on narrow fronts and in depth. Mutual support by attacking groups is usually not possible. The commander must allow for this by attaching heavy weapons to units.

178. Engineers and heavy weapons will be placed well forward and will be attached early to the leading companies.

179. The motorized infantry units usually dismount for attack. Single machine guns and heavy weapons support the attack from the armored transport vehicles.

Section XIV. REST PERIOD

180. The mobility of motorized infantry allows them to place their protective posts at a considerable distance from rest areas in order to make use of natural defenses. This often economizes manpower and guards the troops from surprise attack by armored forces. Obstacles should be constructed. Motorcycle messengers must be allotted to insure rapid communication between the advance guard and the main body.

181. Reconnaissance by fighting patrols gives the best protection against surprise. For the immediate protection of resting troops, local covering parties will usually be sufficient.

182. Concealment of the large number of vehicles can be achieved only by wide dispersions.

The division and disposition of troops according to the positions they occupy in march columns facilitate the issue of orders, and accelerate resumption of movement.

183. Vehicles must be so disposed that they are concealed from air observation.

184. The routes to and from the rest area must allow free movement of traffic. This avoids unnecessary delays, and gives the troops more rest.

185. Every opportunity must be seized to attend to the maintenance of vehicles. Local workshops, garages, and machine shops must be found and allotted to the repair services. In the absence of local workshops, the repair services must be allotted places both suitable for their work and easy of access.

Section XV. ORGANIC TRANSPORTATION

186. The company commander is responsible for the movement of the organic transportation. Should the situation require the organic transportation to be placed under unified command, it will be concentrated within the battalion under command of an energetic officer. The latter will have motorcycle messengers and, where necessary, radio at his disposal for purposes of communication. Good communication is essential to smooth working.

187. Unless there are express orders to the contrary, the transport vehicles will remain close behind the fighting troops. They must be out of sight of the enemy. Ground situated behind a natural tank defense is an ideal position. It may be necessary to provide a force for protection.

188. To reduce the effects of enemy artillery fire and air attacks, the transport vehicles will be dispersed over a wide area, the transportation commander allotting individual sectors and positions. If, in spite of these measures, vehicles are still in danger, the commander must move them to alternate positions previously reconnoitered.

189. If the commander of the motorized infantry decides to have his troops entruck, the armored carriers must be able to reach them in the shortest possible time.

190. When the vehicles have to be moved up to the troops, the commander of the organic transportation orders the time of departure, the order of march, and the route. He is also responsible for the regulation of traffic during the forward movement. If the ground allows, he moves forward off the roads to make use of terrain cover and to leave the roads free for the movement of other troops.

Section XVI. COMBAT TRAINS

191. The combat train is divided into *Gefechtstross I* and *Gefechtstross II*. *Gefechtstross I* will be kept as small as possible and its composition adapted to the requirements of the particular operation. It may include:

(a) Fuel trucks;

(b) Ammunition trucks;

(c) Field kitchens.

192. On the march *Gefechtstross I* will normally remain with units. When deployment begins, it will follow in a position from which it can quickly be moved up to the battalion.

193. *Gefechtstross II* comprises all other parts of the combat train. When the battalion is moving independently, *Gefechtstross II* follows in close order behind the battalion. When the battalion is part of a higher formation, *Gefechtstross II* is placed under command of the regiment or division.

194. On the march and in battle, the light repair detachments are part of the fighting troops. If the latter attack dismounted, the light repair detachment will, as a rule, remain with the transport vehicles.

The commander of the light repair detachment—the battalion maintenance officer—decides how re-

pairs are to be carried out and which vehicles are to be sent to the division workshops.

195. The ration echelon comprises the headquarters and company ration trucks. They come under command of the battalion rations officer.

196. Baggage transport is under battalion command, and moves with the second group of *Gefechtstross I* vehicles, unless concentrated under command of the regiment or division.

Section XVII. SUPPLY

197. The regimental commander is responsible for the care of his troops and for seeing that they are always ready for action. At headquarters a special officer must be appointed to deal with questions of supplies. He must have warning of the commander's plans.

198. The battalion commander is responsible for arranging supplies for his battalion.

199. The supply of fuel to the battalion is a matter of decisive importance. It must be organized in detail. Fuel tanks will be refilled at every halt. Units will render returns to battalion showing the fuel they hold in terms of daily consumption units.

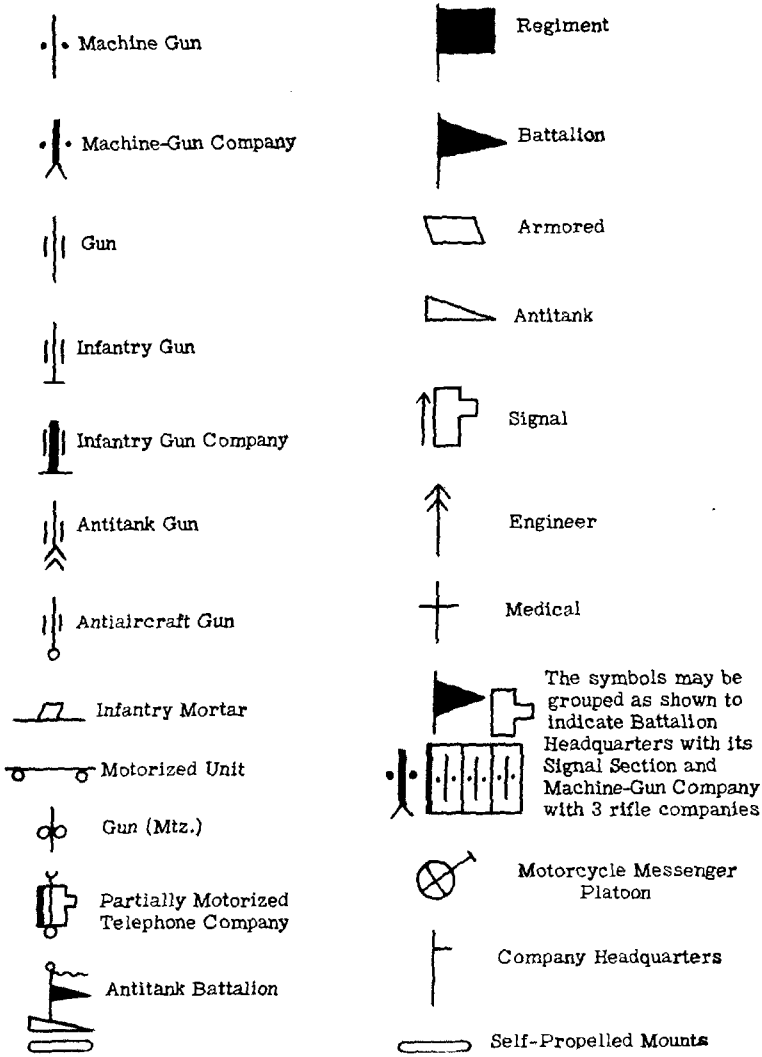
200. When fuel is drawn for the columns, unit fuel trucks will be assembled under the command of the battalion storekeeper and dispatched to delivery points. After fuel has been drawn from the supply column, all unit vehicles and fuel trucks must be fully loaded.

201. The medical services are controlled by the battalion medical officer. Prompt medical aid, particularly in battle, will be provided for by a medical officer who accompanies the attack in an armored ambulance. The second medical officer is responsible

for setting up the regimental aid post, and for the conveyance of wounded to the main dressing station.

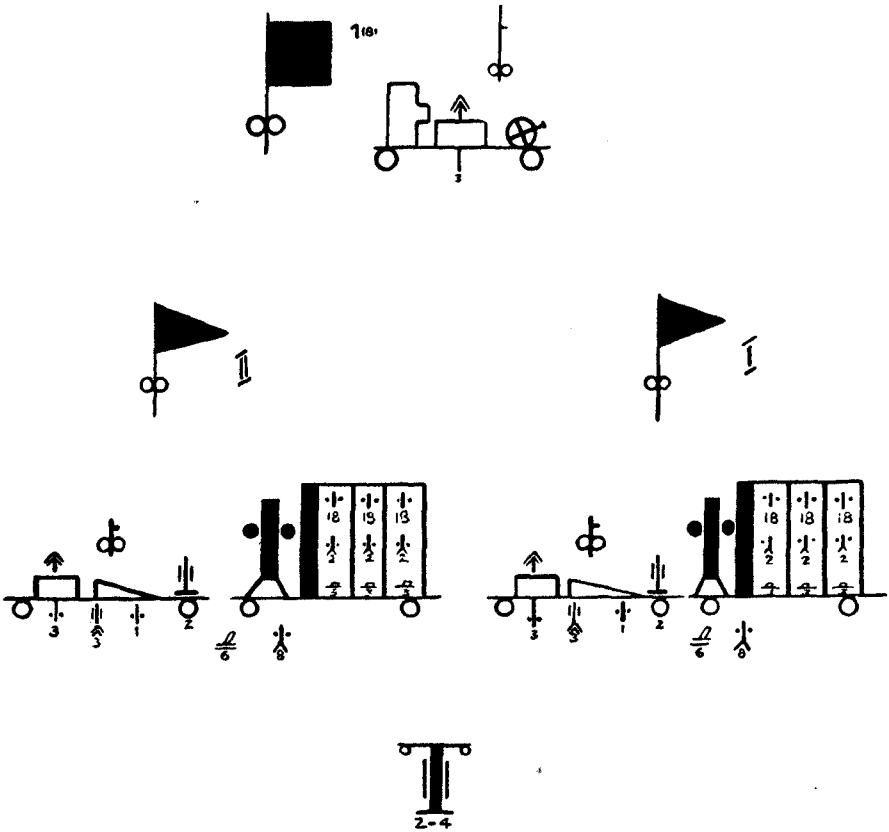
202. Every care must be taken to insure that the battalion is fully supplied, particularly with fuel and ammunition, before going into action. *Gefechtstross I* transport will be moved up as required.

203. After the battle, or during intervals in the fighting, fresh supplies must be issued. Rations, ammunition, and fuel must be brought up, wounded cared for and evacuated, and a recovery service organized to deal with immobilized armored personnel carriers. Units must be made ready for action again in shortest possible time.


Machine Gun
Machine-Gun Company
Gun
Infantry Gun
Infantry Gun Company
Antitank Gun
Antiaircraft Gun
Infantry Mortar
Motorized Unit
Gun (Mtz.)
Partially Motorized Telephone Company
Antitank Battalion
Regiment
Battalion
Armored
Antitank
Signal
Engineer
Medical
The symbols may be grouped as shown to indicate Battalion Headquarters with its Signal Section and Machine-Gun Company with 3 rifle companies
Motorcycle Messenger Platoon
Company Headquarters
Self-Propelled Mounts

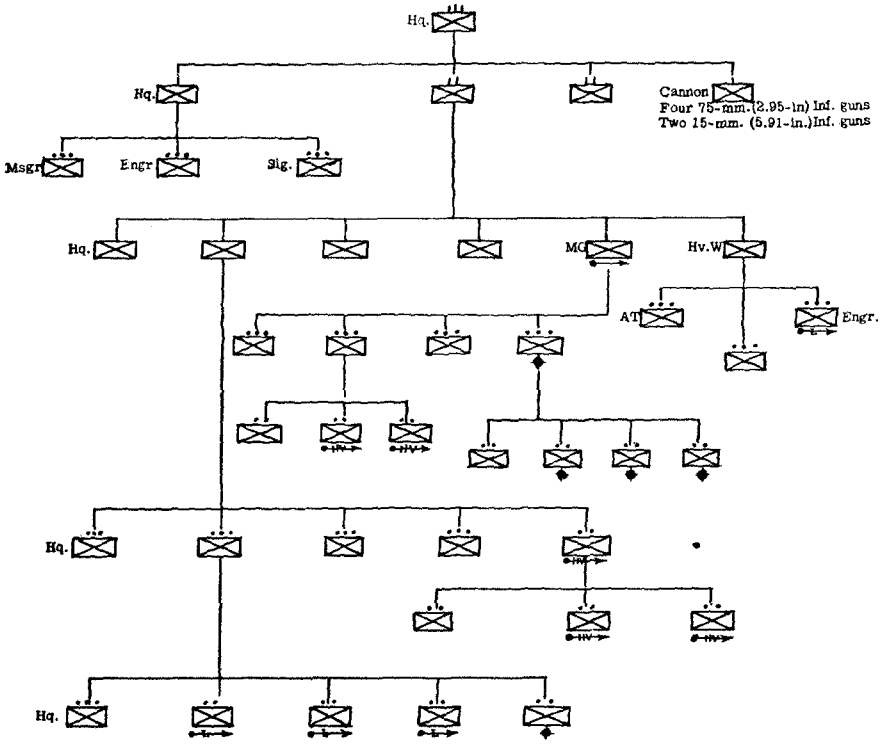
APPENDIX I

ORGANIZATION OF THE MOTORIZED INFANTRY REGIMENT *



*The German motorized infantry regiment is shown here in chart form as it appeared in the captured document. The opposite page contains a key for the interpretation of the German conventional signs used in this chart.

1. Organization*:



2. Strength: 71 Officers, 2,579 EM.

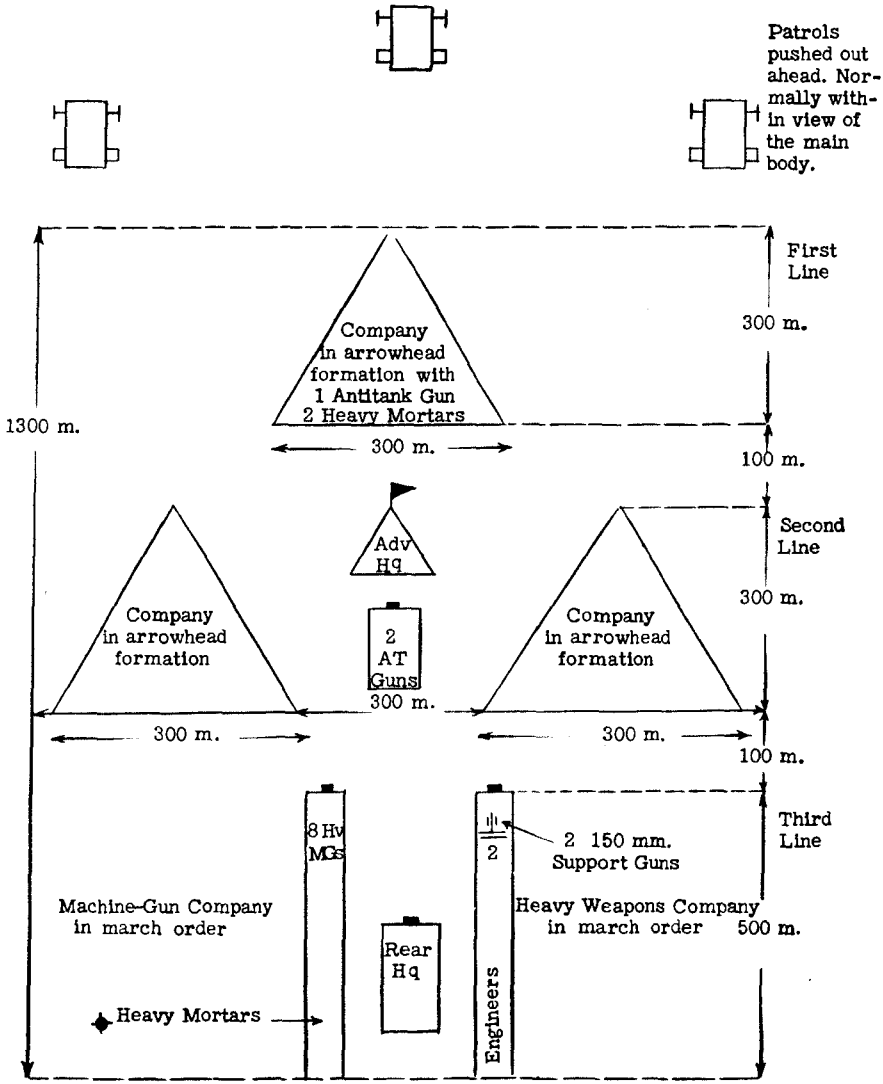
3. Fire power:

Light machine guns	125
Heavy machine guns	28
Antitank rifles	18
50-mm. (2-in.) mortars	18
81-mm. (3.16-in.) mortars	12
37-mm. (1.45-in.) antitank guns	6
75-mm. (2.95-in.) infantry guns	8
150-mm. (5.91-in.) infantry guns	2

*This chart reveals up-to-date information on the organization of the German motorized infantry regiment. U. S. conventional signs and symbols are employed here.

APPENDIX 2

EXAMPLE SHOWING BATTALION ADVANCING IN DEPLOYED (ARROWHEAD) FORMATION



Distances and intervals are given only as a guide. One antitank gun and two heavy mortars are attached to the leading company. Two antitank guns move behind the battalion commander, the remainder of the machine-gun company and the heavy weapons company behind the rifle companies.

APPENDIX 3

MARCH TABLES

	Halted (in close order)			15 km. per hour			20 km. per hour			25 km. per hour			30 km. per hour		
	a	b	c	a	b	c	a	b	c	a	b	c	a	b	c
Regimental Hq	250	130	120	2	1	1	2	1	1	2	1	1	2	¾	1¼
Hq Co	800	700	100	6½	5½	1	6	5¼	¾	6¼	5½	¾	5¾	5	¾
Heavy MG Co	450	400	50	3¾	3¼	½	3½	3	½	3½	3	½	3¼	2¾	½
Hq 1st Bn	400	200	200	3¼	1¾	1½	3	1½	1½	2¾	1½	1¼	2½	1¼	1¼
No. 1 Co	400	300	100	3¼	2½	¾	3	2¼	¾	2¾	2	¾	2½	2	½
No. 2 Co	400	300	100	3¼	2½	¾	3	2¼	¾	2¾	2	¾	2½	2	½
No. 3 Co	400	300	100	3¼	2½	¾	3	2¼	¾	2¾	2	¾	2½	2	½
No. 4 MG Co	400	300	100	3¼	2½	¾	3	2¼	¾	2¾	2	¾	2½	2	½
No. 5 Heavy Wpn Co	450	350	100	3¾	3	¾	3½	2¾	¾	3½	2¾	¾	3¼	2½	¾
Total for 1st Bn	2450	1750	700	20	14¾	5¼	18½	13¼	5¼	17¼	12¼	5	15¾	11¾	4
2nd Bn: as for 1st															
Total for Regt	6400	4730	1670	52¼	39¼	13	48½	35¾	12¾	46¼	34	12¼	42½	32	10½

a. Including *Gefechtstross II* combat train.
b. Excluding *Gefechtstross II* combat train.
c. *Gefechtstross II* combat train alone.

APPENDIX 4

GUIDE FOR DAILY FUEL CONSUMPTION RATES

Unit:	*Gasoline and Diesel fuel in liters*
Regimental headquarters	660
Headquarters company	1800
Heavy infantry cannon company	1700
Hq. 1st Bn	1600
No. 1 Co	1500
No. 2 Co	1560
No. 3 Co	1560
No. 4 MG Co	1660
No. 5 Heavy Weapons Co	1800
Total for 1st Bn	9680
2nd Bn as for 1st Bn	9680
Total for motorized infantry regiment	23520

U. S. GOVERNMENT PRINTING OFFICE: 1942