

# Training Manual For the Cavalry

## Volume 10 The Reconnaissance Battalion (motorized) The Reconnaissance Battalion (Partially Motorized)

Berlin 1939

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The Commander-in-Chief of the Army  
General Army Directorate, Group 6 (Cavalry)

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I approve Volume 10 of the "Training Manual for the Cavalry".  
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### I. GENERAL REMARKS CONCERNING RECONNAISSANCE

1. Reconnaissance is intended to create a picture of the enemy as quickly, as completely and as reliably as possible. Its results form the most important basis for the measures taken by command and for the exploitation of the effects of weaponry.

2. Reconnaissance takes place at both the operational and tactical level from the air and from the ground. It is

supplemented by the signals reconnaissance conducted by special means, the interrogation of prisoners, the evaluation of captured documents, statements made by the local populace, etc.

3. Operational-level reconnaissance provides the support needed for operational-level decisions. It concerns itself especially with monitoring the approach of the enemy and the movement of the enemy's army forces.

4. Tactical reconnaissance provides the support needed for command and control and employment of the forces in the field. It is primarily concerned with the detailed determination of the enemy's concentrations, his approach routes, his organization, his deployment and the extent of his forces in both depth and width.

The closer one gets to the enemy, the more the need for tactical reconnaissance to focus on details. Combat reconnaissance is to be initiated, at the latest, with enemy contact. It creates the prerequisites for the conduct of the fight. All branches are involved in it.

5. A deep view of what is going on in the enemy's sector is not generally available through ground reconnaissance. Aerial reconnaissance generally often only provides the direction in which it is to be conducted. In contrast, however, it is only ground reconnaissance that can generally determine without doubt whether certain terrain is clear of the enemy. It is only through prisoners, enemy dead and other means that conclusions can be drawn concerning the enemy's organization for combat; that contact can be maintained with the enemy; and details obtained concerning his actions, his strength and disposition and, occasionally, his combat worthiness. In addition, timely contamination of the terrain can be determined. Furthermore, it can also provide information when aerial reconnaissance is not possible or is only very difficult as a result of weather conditions or at night.

The forces mainly responsible for ground tactical reconnaissance are motorized reconnaissance battalions, horse-mounted reconnaissance battalions of the cavalry and the reconnaissance battalions of infantry divisions.

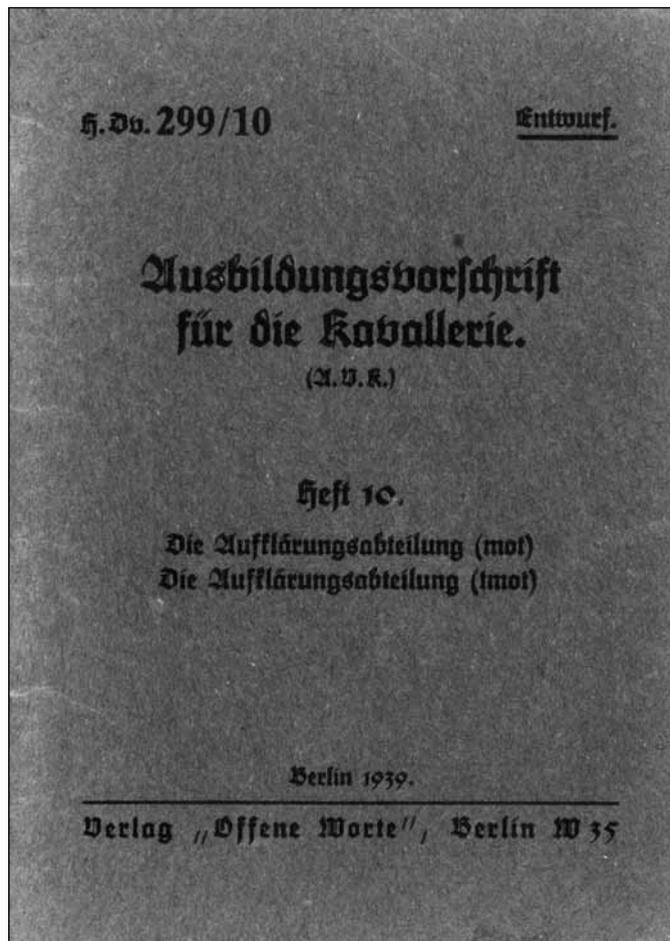
6. Motorized reconnaissance battalions are in a position to get reconnaissance information quickly and at great distances. It will not be able to always capture details, how-

ever. Its reconnaissance activities are normally conducted during the day; approach marches can be conducted at night. Its speed is usually determined by the use of roads.

The performance of a motorized reconnaissance battalion is dependent on the capabilities of its reconnaissance vehicles, on the availability of supplemental fuel, on the condition of the roads and trails, on the terrain, on the weather, on the time of day and, most of all, on the ability to use organic means of communications and exploit those available locally.

7. Horse-drawn reconnaissance battalions and the reconnaissance battalion of the infantry divisions have the advantage of greater mobility in the field and the ability to deploy to virtually all directions with horse-mounted riders and bicycles. They are more independent of weather, ground conditions and logistics than motorized reconnaissance battalions. Their march speed and the ability to conduct marches are limited. They are in a position to observe the enemy from hidden vantage points, to establish a tight reconnaissance net and, even more importantly, to gather details when that is of importance.

8. High demands are placed on the leaders of the forces employed in the service of ground reconnaissance—all the way down to the patrol leader. The leadership qualities of the leader is the determinant of success. Cunning, skill, understanding of the mission, decisive movement and riding in all types of terrain, offensive spirit, resourcefulness in the field, to include at night, unflappability, rapid and independent actions must be expected.



All of the leaders are responsible for ensuring that contact gained with the enemy is maintained day and night inasmuch as it does not contradict their mission. Contact lost is to be regained immediately.

9. Good ground reconnaissance guarantees a certain degree of security for the troop formations that follow. The desire for security may not in general lead to giving security missions to reconnaissance battalions in addition to their reconnaissance missions. The freedom of movement necessary for conducting reconnaissance is restricted by doing that and the ability to conduct reconnaissance is hindered.

If the reconnaissance battalions have to be used for security on an exception basis, then they must be reinforced, if necessary, in a timely fashion. They will then be directed as to which mission has precedence. If necessary, the leader of the reconnaissance battalion will clarify the situation by asking for guidance. If forces are sufficient, the reconnaissance battalion will request special forces for every mission.

10. In addition to the mission, orders given to the reconnaissance battalion must normally contain: Movement time; Information concerning neighboring reconnaissance forces; reconnaissance sector or direction; reconnaissance objective; the limits of advance for patrols; Measures for submission of reports with information concerning intermediate objectives, whereupon a report is to be submitted after reaching them; report times, if warranted; conditions for possibly establishing contact with one another and with aerial reconnaissance; as well as move-out time, route of march and objective of the main forces.

Information concerning actions on enemy contact and the local populace can also be necessary.

11. The senior, common commander determines the manner in which contact is to be established between air and ground reconnaissance as well as between motorized reconnaissance battalions and the reconnaissance battalion of the infantry divisions.

Special directives need to be established for the transfer of reconnaissance activities of a motorized reconnaissance battalion that is pulled out of the line after the conclusion of its operational-level reconnaissance and the reconnaissance battalions of the infantry divisions.

12. No later than the onset of combat reconnaissance, it is to be determined whether the reconnaissance battalions in front are to receive orders to clear the front and reconnoiter on the flanks of the enemy or continue their previous reconnaissance activity, while holding important

terrain features, and be passed through the lines by the main forces or fall back on to the main forces.

If the reconnaissance battalion receives no orders, then it remains to the front and continues to conduct its previous reconnaissance, screens the following main forces and does not fall back to them until forced by the enemy. The reconnaissance battalion of a division that has friendly forces to both sides will be taken behind the front after the completion of its mission.

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## II. ORGANIZATION AND CAPABILITIES OF THE RECONNAISSANCE BATTALIONS<sup>1</sup>

13. The motorized reconnaissance battalion in an armor division consists of:

Headquarters with a signals section

Two armored reconnaissance troops<sup>2</sup>

One motorized rifle troop

One heavy troop, consisting of a towed gun platoon, a towed antitank platoon and a motorized engineer platoon

Combat trains

Rations section

Light column

Baggage trains

In the case of the light divisions, the reconnaissance battalions are formed from the reconnaissance regiment.

14. The motorized reconnaissance battalion of a motorized infantry division consists of:

Headquarters with a signals section

One armored reconnaissance troop

One motorized rifle troop

Combat trains

Rations section

Light column

Baggage trains

15. The march performance of a motorized reconnaissance battalion is primarily dependant on the enemy situa-

<sup>1</sup> Original Footnote: The organizations listed in paragraphs 13, 14 and 16 are illustrative only.

<sup>2</sup> Translator's Note: Troop = company-sized formation in cavalry usage.

tion and the terrain. Whenever there is a lack of resistance, favorable terrain conditions and a ready source of fuel, a march performance of between 200 and 250 kilometers can be achieved by armored reconnaissance patrols and reconnaissance battalions. Average march speeds—as long as the enemy does not appear—can be considered to be:

—approximately 30 kilometers an hour for motorized reconnaissance battalions and

—approximately 40 kilometers [an hour] for armored reconnaissance patrols.

Speed decreases considerably whenever it is night or there is fog.

An armored reconnaissance troop can generally reconnoiter along a width of 25 kilometers.

16. The partly motorized reconnaissance battalion of an infantry division consists of:

Headquarters with a signals section

One horse-mounted troop

One bicycle troop

One heavy troop, consisting of a gun platoon, an antitank platoon and an armored car section

Combat trains

Ammunition and equipment section

Rations section

Baggage trains

17. The march performance of a partly motorized reconnaissance battalion is primarily dependant on the enemy situation and the terrain. Whenever there is a lack of resistance and the terrain is favorable, approximately 75 kilometers can be covered by horse-mounted and bicycle patrols, approximately 200 kilometers for armored car patrols and from 50 to 60 kilometers can be covered by the reconnaissance battalion proper. If the upper hand in the reconnaissance area has to be forced through combat, then those figures are no longer valid.

Average march speeds—as long as the enemy does not appear and the terrain is favorable—can be considered to be:

—approximately 6 kilometers an hour for the partly motorized reconnaissance battalions

—approximately 8 kilometers for the horse-mounted patrol

—approximately 10 kilometers for horse-mounted messengers

—approximately 12 kilometers for bicycle patrols

—approximately 40 kilometers for armored car patrols.

A troop is normally capable of reconnoitering along a width of 10 kilometers.

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### III. COMBAT OPERATIONS OF RECONNAISSANCE BATTALIONS

18. Dominance in the area of reconnaissance makes friendly reconnaissance easier, makes the enemy's more difficult and hides the movements of friendly forces.

Dominance can only be achieved through offensive actions against the enemy's reconnaissance.

Offensive actions by the reconnaissance battalion is therefore imperative during reconnaissance activities:

a) against enemy reconnaissance forces in order to prevent the enemy's reconnaissance activity and allow friendly efforts to be conducted.

b) against enemy outposts that prevent the continuance of friendly reconnaissance.

19. Fixing the reconnaissance battalion in unnecessary fighting that calls into question the friendly reconnaissance mission is wrong.

20. Reconnaissance battalions must use opportune situations to ambush the enemy and damage him whenever doing so does not call the reconnaissance mission into question or whenever its reconnaissance activities are over.

Even in cases of enemy superiority, the reconnaissance battalion can obtain success by exploiting its maneuverability. This frequently allows limited-objective attacks against the wings, flanks and rear of the enemy with the element of surprise, the frequent repetition of attacks at different locations, the rapid concentration of forces to eliminate dispersed weaker enemy forces and the employment of elements as a mobile reserve or the launching of immediate counterattacks during the defense.

21. The leader of the reconnaissance battalion commits his combat forces in a concentrated fashion and using the element of surprise as much as possible so as to obtain success as quickly as possible. Frequently, reserves are to be dispensed with.

22. When executing the attack, the following must be differentiated: Whether the attack is to be against an enemy occupying a piece of terrain or against an occupied line.

In the first case, the goal must be to eliminate the enemy through envelopment.

Armored cars are well suited to surprise attacks against the deep flanks and rear of the enemy.

In cases where an attack is conducted against a enemy-occupied line, the breakthrough is to be forced by sharply concentrating all forces at one point. The effort to determine opportune breakthrough points will be dispensed with if the enemy's attention will be drawn to the effort too early.

A breakthrough through more strongly fortified enemy defenses can usually only be accomplished by reinforcing the reconnaissance battalion.

23. The order to attack must allow the intended conduct of the attack to be clearly identified. The issuance of the order must maintain the proper balance between the necessary unity of operations and the independence of the individual units and avoid inhibiting the rapidity and force of the attack by too detailed orders.

As a rule, orders are issued to the heavy weapons first so that the attack will not be delayed while waiting for their firepower and the element of surprise is lost.

24. If the attack does not make progress, it may become necessary to call off the attack and attack at another location by exploiting the element of speed.

25. If the pursuit cannot be initiated from the wing or the way there is too far, then it is to be initiated from the point of breakthrough.

The direction the pursuit is to be taken is to be selected in such a fashion that reconnaissance can be conducted at the same time against the withdrawing enemy force.

26. The mission or the actions of the enemy can force the reconnaissance battalion to temporarily transition to the defense. Its operations in defending or conducting a delaying action are then executed in accordance with its mission and the situation.

27. A reconnaissance battalion can only succeed in defending successfully on terrain that only allows the enemy a narrow frontage. The flanks of the reconnaissance battalion have to be secure through the terrain or other forces. It is generally recommended that a mobile reserve be formed. The reserve can be committed in defending against an enemy envelopment, in interdicting an enemy force that has penetrated into the main battle area or in tossing back an enemy force in an immediate counterattack.

28. The execution of a defense as a delaying action corresponds more to the nature of the reconnaissance battalion than the [deliberate] defense. It is especially important

that the line of resistance is tied in to terrain that offers protection against armor. Armored cars are well suited for providing supporting fires and, in the case of weak enemy forces, to conduct immediate counterattacks. When disengaging from the enemy, they are often the last to remain in contact with the enemy.

29. In cases where the main forces are tied in to the defense on both sides, the reconnaissance battalion is generally pulled behind the front by the force commander as a reserve, if the closeness of the enemy prevents its employment in front of the lines. If necessary, it can be employed by the force commander as the final reserve.

In cases of delaying actions, disengagement from the enemy and retreat of the main forces, reconnaissance battalion are usually used as mobile reserves, whenever their employment is not needed for reconnaissance.



#### **IV. CONDUCT OF RECONNAISSANCE BY MOTORIZED RECONNAISSANCE BATTALIONS**

##### **ORDERS FOR RECONNAISSANCE**

30. There is a difference between  
General headquarters reconnaissance battalions  
Reconnaissance battalions in armored divisions  
Reconnaissance battalions in light divisions and  
Reconnaissance battalions in motorized infantry divisions.

31. Operational-level reconnaissance is conducted by general headquarters reconnaissance battalions. They receive their missions from higher command levels of the Army to which they are attached.

The width of the reconnaissance sector and the lead out front will be based on the situation and the mission.

32. The reconnaissance battalions of armor divisions, light divisions and motorized infantry divisions receive their missions from the division to which they are assigned. It is intended for them to deliver the information necessary to command and employ the respective divisions.

The width of the reconnaissance sector and the lead out front are determined by the situation and the mission.

33. The commander of the reconnaissance battalion orders the execution of the reconnaissance and the sending out of patrols.

34. The strength and organization of the patrols is based on the mission, the situation and the terrain. They should never be stronger than necessary to conduct the mission. As a minimum, however, they have to consist of at least two vehicles (including a radio vehicle).

35. There is a difference between

Heavy armored reconnaissance patrols (heavy armored cars)

Light armored reconnaissance patrols (light armored cars)

Mixed armored reconnaissance patrols (heavy and light armored cars)

Reinforced armored reconnaissance patrols (armored reconnaissance patrols with attached motorcycle infantry, engineers or elements of the senior command)

Motorcycle infantry patrols.

36. In general, the armored reconnaissance patrols are usually taken from an armored reconnaissance troop. Special circumstances, such as a wide reconnaissance sector or an extensive road network, can justify the initial employment of armored reconnaissance patrols from both of the armored reconnaissance troops.

37. In general, only few and weak patrols will be dispatched far from the enemy. The mission of this first wave of reconnaissance is to ferret out the enemy and determine his location in a specific area or to establish contact with enemy forces reported by aerial reconnaissance. To that end, a scouting of only the most important roads and traffic nodes will generally suffice. To determine the location of the enemy force, his organization for combat and the actions of the enemy force that has been identified, the reconnaissance effort is to be intensified.

38. The situation and terrain determine whether the patrols will be dispatched from the assembly area of the motorized reconnaissance battalion or only after reaching a section of terrain further to the front.

The lead employed by the first wave of reconnaissance is to be measured by the distance to the enemy, the terrain and the range of the radio equipment.

39. Contact is maintained between the patrols and the leader of the motorized reconnaissance battalion by means of radio. When it is imperative to maintain radio silence so as not to betray the approach of the battalion, reports can

be made by attached messenger vehicles and, if opportune, by means of the postal network<sup>3</sup>.

40. The patrols will be assigned phase lines that have to be reported when crossed, even without enemy contact.

41. Information concerning the situation and terrain, results of aerial and other reconnaissance, mission and intent of the leader of the reconnaissance battalion precedes the [specific] oral orders to the patrol leaders. The providing of information concerning the situation is especially important and must indicate where initial enemy contact is expected and what type of enemy force is to be expected based on previous reconnaissance results.

42. The leader of the reconnaissance battalion then gives the patrol leader specific oral orders.

In general, the order to the patrol leader contains:

Leader, strength and organization of the patrol

Mission

Reconnaissance objective

Movement route of advance

Actions on reaching the objective (Maintaining contact with the enemy, reconnaissance into the depths of the enemy or return)

Location and time of patrol departure

Details concerning actions (differs depending on the situation and terrain), e.g., actions at certain terrain features or localities

The main things the patrol leader has to report are contained in the phrase "I want to know..."

43. When determining the time of departure, the time needed by the patrol leader for his preparations must be taken into consideration, even when the situation demands a rapid dispatching of the patrols.

44. More than one mission to a reconnaissance patrol is to be avoided. To conduct demolitions, special-purpose forces are to be employed to which a reconnaissance patrol can be added during the advance.

45. Reconnaissance activities at nighttime are principally devoted to monitoring roads. Reconnaissance patrols that remain in visual contact with the enemy at night conduct their monitoring from covered and concealed positions (patches of woods, farm outbuildings etc.). Generally, they are relieved early in the morning before first

<sup>3</sup> Translator's Note: This may sound odd to American readers, but what is meant is telephonic reporting, since the post offices in all of the European companies held responsibility at that time for telephone communications and had the capacity in each post office to make telephone calls.

light. There is no purpose served in leaving reconnaissance patrols in visual contact with the enemy for several days without a break.

## SECURITY ON THE MARCH

46. The motorized reconnaissance battalion organizes to provide security of the march in the advance guard and the main body. An armored lead element is to be provided in front of the advance guard and the main body. The establishment of a rearguard can also be necessary.

47. The size of the advance guard is based on the situation, terrain and size of the main body that needs to be screened. In case the advance guard needs to assume additional screening missions—establishing reconnaissance elements to the flanks; screening of road networks leading in from the flanks), those missions must be ordered.

Generally, the advance guard consists of the armored car troop, which established the first wave of reconnaissance forces, and from elements of the motorcycle infantry troop. Depending on the situation, it may be necessary to attach engineers and antitank elements.

Generally, the main body follows the advance guard at a time interval of 20 minutes. The terrain and weather conditions may dictate other intervals.

The lead elements move forward by bounds. The distance between them changes in accordance with the terrain.

48. Antitank defense is maintained by the armored cars with armor-defeating weapons and the [attached] antitank forces. The light armored cars with automatic cannon are especially well suited for antiaircraft defense. If possible, all security measures are to be conducted so that the units are not separated.

## SECURITY WHEN RESTING

49. To secure resting elements and quarters, it is generally preferred to use motorcycle infantry elements, which can be reinforced by antitank guns, light infantry guns and engineers. As long as the situation allows it, the armored car units that are part of the force are to be allowed to rest.

50. Frequently, measures taken to allow observation and alerting of forces, the blocking of routes, the occupation of dominant areas with good fields of fire and the establishment of rapid means of communication are sufficient as security measures. Special attention must be paid to antiarmor defense. Obstacles make that type of defense easier.

In cases of weather-restricted visibility and at night, the security measures are to be intensified.

51. The security elements are to be established far enough away from the resting reconnaissance battalion that sufficient time is allowed for establishing march and combat readiness.

52. When close to the enemy, it is recommended to change the battalion's location at the onset of darkness in order to avoid ambushes. Prior to first light, it can also be imperative to change locations.

53. Small localities and built-up areas off of the main routes are especially suitable for quarters.

In large localities, quarters are to be taken in a portion of the locality that is away from the enemy and easy to defend.

An increased alert status is often necessary. The security measures taken must be so thorough that an enemy ambush encounters a prepared defense and an enemy attack can be turned back or held up long enough for the battalion to attain combat readiness. To that end, rapid means of evacuation must be reconnoitered and established.

In enemy territory, the civilian populace in the quartering area must be denied every opportunity to communicate with the outside world. To that end, all means of communication and transportation must be rendered inoperable. It may also prove necessary to keep the assembled populace under guard in suitable areas.

## MARCH AND REPORTING ACTIVITIES

54. The reconnaissance battalion establishes a reconnaissance reserve, reporting points and backup for its reconnaissance patrols. It moves forward by bounds. The length of the bounds is influenced by the closeness of the enemy and the nature of the terrain and its vegetation. As the distance to the enemy becomes closer, the length of the bounds is to be shortened.

Terrain that is anticipated to be clear of the enemy is to be crossed rapidly, generally by marching at night.

Uniform blackout measures taken by the vehicles during a night march must be established (dimmed or complete blackout).

55. The march column is to be formed by infiltration while moving. The battalion determines waypoints for the advance guard and the main body and establishes the times they are to be crossed by the lead elements.

56. The selection of the route of advance is based on the mission and the situation. Generally, a road that allows the battalion to leave it rapidly and reduces its visibility from the air is preferable to a road that goes across open terrain or crosses natural obstacles that are easily blocked (sector of terrains; bottlenecks).

57. The commander of a motorized reconnaissance battalion generally locates himself in the advance guard right behind the leader of the advance guard, since reports reach him rapidly and securely there and orders can be sent in a timely manner to the formations marching behind him.

58. Collocated with the battalion commander are generally the signals officers, the leader of the reconnaissance reserve and the commander of the heavy troop.

The reconnaissance platoon generally moves with enough of its elements in the advance guard (1st section), so that necessary contact can be maintained with the reconnaissance patrols employed, with superior headquarters, with neighboring reconnaissance formations and within the march column proper. The remainder of the signals platoon remains with the main body.

59. The combat trains are integrated into the main body or follow the main body at a distance dictated by the situation. The combat trains can also be left behind at a secure locality and then called forward later on under cover.

Important considerations for incorporation of the combat trains or calling them forward later are the situation, the mission and, above all, the necessity for the secured delivery of ammunition and fuel.

60. The leader of the combat trains is responsible for the security of the trains. Depending on their distance from the battalion, motorcycle messengers must be attached to them.

If the combat trains are integrated into the main body, then the leader of the trains joins the trail element. (See *Heeresdienstvorschrift 472* "Vehicle Regulations for All Branches".) The trail element moves ahead of the rear-guard and has a vehicle equipped with towing equipment and armor mechanics.

61. Generally, the rations section and baggage trains—frequently the light column or elements of it as well—are left behind with security elements when the battalion conducts reconnaissance. They are not brought forward until later.

If the light column follows the battalion, then it is to follow behind the combat trains.

62. Short halts serve to check vehicles and allow breaks. Halts can also be necessitated by march requirements or the actions of the enemy. When there are halts, the roads are to be cleared and cover taken from aerial observation. When halting, the advance guard also receives the mission of securing the main body. In the latter case, direct security measures may also be necessary. Short halts that occur in rapid succession tire the forces.

Rests are designed to resupply and rest the forces. They are to be planned ahead of time and not to last less than two hours. It may be useful to establish rests after reaching each intermediate objective.

63. Patches of woods or farmsteads off the road are suitable for intermediate objectives. Securing the intermediate objectives takes place in accordance with paragraphs 49-53. Measures are to be taken that so that friendly reconnaissance aircraft can find the reconnaissance battalion.

The rest areas of the battalion must offer concealment from the air and allow evacuation in several directions.

64. The battalion commander should be located away from the vehicles but in such a manner that he can easily be found by messengers.

65. Incoming reports go to the commander of the reconnaissance battalion. He evaluates the reports and reports to his superior commander. Word-for-word forwarding of the received reports to the superior commander can be necessary in some cases.

At certain intervals, the commander of the reconnaissance battalion can provide a summary of the enemy situation to the superior commander.

66. Especially important reports can be submitted to the superior commander by an officer if necessary, in an armored car.

This is especially imperative whenever the situation has fundamentally changed from the original assumptions of the superior and radio silence has been ordered.

67. The preparation of reports is covered by the section in *Heeresdienstvorschrift 300*, Part I, "Reporting," Sections II-III.

68. Information concerning the enemy is only of value if it reaches the commander in a timely manner. If information concerning the enemy is lacking, the reporting of the location of the reconnaissance patrol or the motorized

reconnaissance battalion can be of importance to the superior headquarters.

69. Initial contact with the enemy is always to be reported, unless other orders have been issued. If possible, the strength and combat arm is to be indicated. It is especially important to report enemy movement and the direction of movement early to the superior commander.

70. Reconnaissance by patrols must be supplemented by additional information gained by other means. To that end, information can be gained in enemy territory by listening in on public telephone lines and by searching post offices, train stations and government buildings for militarily valuable correspondence. In addition, the radio transmissions of the enemy's reconnaissance forces must be monitored whenever the friendly tactical and signals situation allows it.

In friendly territory, the official telephone network can be exploited for reconnaissance purposes. Telephonic contact will be established with the post offices that are pertinent for the upcoming mission and with the telephone locations that are important because of their location. Those locations are to be provided with the appropriate set-ups, so that they can work cooperate with the reconnaissance activity. It can be necessary for the reconnaissance battalion to occupy telephone centrals along its route of march, facilitating the transmission of reports and orders.

The estimate of the enemy situation can be supplemented by the statements of prisoners brought in and the content of captured written material. After a short interrogation of prisoners and after scanning written material, both are to be sent to the superior headquarters.

71. Frequently, the first employment of reconnaissance patrols will not suffice in sufficiently clarifying the enemy situation in the reconnaissance area or satisfying the missions assigned by superior headquarters. Intensifying reconnaissance efforts in the direction the enemy has been determined will often be necessary based on the initial reports. By means of increasingly focused individual missions that are given to subsequent reconnaissance patrols, which increasingly concentrate on details, the effort must be made to complete the picture of the enemy. When the enemy situation changes, it may be necessary to send out additional reconnaissance efforts.

The commander of the reconnaissance battalion must be prepared at all times for enemy countermeasures in the reconnaissance area of operations. If reports from in-

dividual reconnaissance patrols are not received and it is believed that they may have been lost after contact with the enemy, then the dispatching of new reconnaissance patrols will be necessary.

72. Reconnaissance patrols and reconnaissance battalions moving through friendly outposts when coming from the direction of the enemy are to slow their rate of movement and clearly provide the corresponding appropriate recognition signals.

When larger formations are moving through the lines and also at night, the friendly outposts are to be notified ahead of time to eliminate the possibility of mistakes and faulty recognition.

In addition, it may be prudent to also issue orders or make arrangements for passage points, certain actions or pre-arranged signals.

## CROSSING OF BODIES OF WATER

73. Bodies of water must be crossed by reconnaissance battalions and their reconnaissance patrols quickly. To that end, available bridges are to be taken in a timely manner by the reconnaissance battalion or forces sent forward.

74. Attacking bridges along the main roads usually offers little chance for success. It may therefore be advisable to conduct preparations for a crossing at another place that is not defended or only weakly defended at the same time that a *coup de main* is attempted.

By pretending to cross at another place, the attention of the enemy can be diverted from the actual crossing point. At the same time, however, a splitting of forces is to be avoided.

75. If it is intended to use the engineer bridging materials that are brought along, then it is necessary to determine in a timely manner whether the construction of a bridge is necessary or whether ferrying should be employed. The leaders of the heavy troop and the engineer platoon are to be informed of the intentions of the battalion in a timely manner, so that they can start their reconnaissance early and make the necessary preparations based on the battalion orders.

76. It can be beneficial to [also] employ crossing materials for the rapid crossing of motorcycle infantry in addition to the construction of ferries.

77. The engineer platoon has the following capabilities:

1. Construction of a bridge 11 meters in length with a 5-ton capacity or

2. Construction and operations of 2 ferries (2 tons) or 1 ferry (4 tons)

3. Construction of a footbridge for motorcycle infantry

78. Based on the situation and the mission, the commander of the reconnaissance battalion decides whether the entire battalion or only reconnaissance patrols are to be crossed. Generally, if only reconnaissance patrols are crossed, then a crossing point for the return of the reconnaissance patrols must be held open.

79. All measures conducted for the crossing must be executed quickly to preclude the enemy time for bringing forward defensive forces.

80. Generally, in the case of broader expanses of water, if the entire battalion is crossed, which is only possible by the timely bringing forward of additional engineer equipment, then trains vehicles are generally to be left behind and under cover. In some situations, only the vehicles of the combat trains are to be crossed so as to provide the battalion with the necessary ammunition and fuel.

81. In order to rapidly continue reconnaissance on the far side of a river obstacle, it may be necessary to initially cross motorcycle infantry, who can be relieved by armored reconnaissance patrols later on.

## RESUPPLY

82. The motorized reconnaissance battalion maintains 3.5 logistics packs in the vehicles in its combat trains and an additional three sets in the light column. Correspondingly, the reconnaissance battalion has a range of 600 kilometers with its basic load of fuel.

The careful monitoring and reporting of the consumption of fuel and ammunition is the duty of all leaders. The taking of fuel from fuel pumps in enemy territory is to be avoided, since it cannot be determined whether it has been rendered unusable.

83. The initial refueling of the combat vehicles takes place from the combat trains.

The combat trains replenish from the light column or directly from fuel points that the light column also uses that have been pushed forward by the commander, depending on the situation.

If the division is advancing at the same time, the unsecured portion of the resupply route is soon shortened considerably. In such a case, the resupply of the battalion will not encounter any significant difficulties.

It can frequently be necessary to protect the combat trains and the light column, including the use of armor-defeating weapons.

84. Ammunition, demolitions, rations and medical equipment are maintained in the combat trains of the reconnaissance battalion and the light column.

85. With regard to rations, the reconnaissance battalion carries an abbreviated portion for every man on its vehicles. An additional entire emergency portion is maintained by the field mess.

86. Rations section and baggage trains are consolidated by the reconnaissance battalion, just like the combat trains.

The rations section and the baggage trains may not disturb the movements of the reconnaissance battalion and the troop formations that follow it. It may be ordered by superior headquarters that they remain behind in the main battle area—either entirely or partially—and be moved forward to the reconnaissance battalion later on.

87. For the care of the wounded and the sick, see *Heeresdienstvorschrift 21*.

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## V. CONDUCT OF RECONNAISSANCE BY PARTLY MOTORIZED RECONNAISSANCE BATTALIONS ORDERS FOR RECONNAISSANCE

88. The reconnaissance battalion (partially motorized) is employed by the infantry division for tactical reconnaissance.

89. The reconnaissance battalion must receive orders in such a timely manner that it can achieve the necessary lead in front of the division without being precipitously hurried, unless the lead is already there as a result of its positioning. Likewise, mounted soldiers and bicycle reconnaissance elements must have a lead that allows them time to conduct reconnaissance. In general, this should be no less than 1.5 hours. Increased march speed in order to obtain the necessary lead for the reconnaissance battalion in front of the division and for the reconnaissance patrols in front of the reconnaissance battalion fatigues the force and can only be required under special circumstances.

90. The commander of the reconnaissance battalion orders the execution of the reconnaissance and the sending

out of patrols. If the division commander also dispatches reconnaissance patrols, he will inform the commander of the reconnaissance battalion of their missions.

If the commander of the divisional reconnaissance battalion is without orders or he unexpectedly is faced with a changed situation, he is then responsible for ordering or continuing reconnaissance that complies with the divisional commander's intent on his own.

91. Prior to issuing orders, the commander of the reconnaissance battalion must be clear on the map on the advance route of the reconnaissance battalion and its intermediate objectives.

92. In situations, in which direct enemy contact is not expected and in which the reconnaissance battalion has a sufficient lead, the commander establishes the area to be reconnoitered as far as the day's objective, using intermediate objectives in depth. The reconnaissance battalion proper moves along a march route that is known to the reconnaissance patrols. The objectives of the individual horse- and bicycle-mounted patrols are generally no more than 15 kilometers from that of the reconnaissance battalion, if they have not been provided with radio equipment.

By controlling the movement of the reconnaissance battalion and the reconnaissance patrols in this manner, the transmittal of reports is maintained the best. The horse and bicycle-mounted messengers can hurry back to the reconnaissance battalion, whose location is known, avoiding roundabout ways.

93. The commander of the reconnaissance battalion orders the number and type of reconnaissance patrols, as well as their strength and composition.

The number of patrols to be employed is based on the demands of the situation. The monitoring of the major roads of the area to be reconnoitered, especially the advance route of the division, must be assured. Sufficient reconnaissance reserves must be maintained.

94. Horse-mounted reconnaissance patrols can also move off to the sides of the roads, traverse terrain that has no roadways and cross watercourses swimming on the horses. They can search terrain in widely dispersed formations; they are not affected by the ground or the weather and, generally, not reliant upon resupply. Their march speed and performance are limited.

Bicycle-mounted reconnaissance elements have a superior march speed and performance compared to horse-mounted elements in areas with a good road network and

corresponding weather. Their march speed sinks on field trails, especially in bad weather; in open terrain, their speed is often less than that of those on foot. At night or in cases of fog, they are more suitable than other types of patrols, assuming there is a good road network, since they can move without making a sound.

The armored reconnaissance patrol has a high march speed and performance. As a result of its armor, it is superior to the enemy in encounters with non-armored reconnaissance patrols and, as a result of its equipping with a radio vehicle, capable of performing better than other reconnaissance forces. It is well suited for employment on roads and crossing great distances. It can execute a mission rapidly and is quickly available again to the commander for new operations.

95. The strength of the reconnaissance patrols of all types is based on the mission, as well as the terrain and the actions of the enemy and the local populace. In the case of horse-mounted reconnaissance patrols, they vary between in strength, between small groups and squads. In the case of bicycle patrols, they are usually formed in squad strength, since they more frequently have to fight their way forward as a result of their lesser mobility. The armored reconnaissance patrol is always to be employed in the strength of two vehicles (including one radio vehicle).

Reconnaissance patrols with important missions are to be led by officers. It may be necessary to attach bicyclists to horse-mounted patrols, as well as gas detectors of all types.

When calculating the strength of the horse-mounted and bicycle reconnaissance elements, there should be two rider or bicyclist messengers employed for every anticipated report in enemy territory or cases where the enemy threat is high. Also to be taken into consideration, however, is the fact that larger patrols cannot escape enemy observation so easily and, as a result, their activities will be made more difficult. Having an additional leader go along with the patrol can be advisable. It must always happen whenever the reconnaissance patrol must be divided after reaching an objective.

96. The transmittal of reports to the reconnaissance battalion can be sped up by attaching backpack radio sections to the most important reconnaissance patrols. The commander should maintain a reserve of one or two backpack radio sections, however, so that a second wave of reconnaissance patrols can receive them as well.

It must be remembered that enemy radio intercept efforts in determining the presence and movements of the reconnaissance battalion are made more difficult if radio traffic is restricted to that which is unconditionally necessary. Every transmittal—including tuning—betrays the presence of the radio set and affords the enemy opportunity to vector or listen in.

97. If it is imperative to quickly cross areas with a good road network that have been determined to be free of the enemy or the terrain off the roads is not accessible to horse-mounted elements, then the use of a wave of bicyclist reconnaissance elements may be initially called for. Generally, however, horse-mounted elements should be employed as soon as possible, since they can get through everywhere. By doing so, the strength of the bicycle troop is maintained.

98. The commander of the reconnaissance battalion issues individual orders to the reconnaissance patrol leaders.

In general, orders to the reconnaissance patrol contain:  
Leader, strength and organization of the patrol

Mission

Reconnaissance objective

Movement route of advance

Actions on reaching the objective (Maintaining contact with the enemy, reconnaissance into the depths of the enemy or return)

Location and time of patrol departure

Details concerning actions (differs depending on the situation and terrain), e.g., actions at certain terrain features or localities

In addition, a timeline for movement can be issued to the reconnaissance patrol, at least if it appears the movements will not be disturbed by the enemy. The timeline must detail when the reconnaissance patrol departs, when it is to reach its intermediate objectives (based on a predetermined march speed), where the reconnaissance battalion will be located at a specific time and how the messengers (mounted or on bicycles) are to move, based on that information.

The main things the reconnaissance patrol has to report are contained primarily in what follows the phrase “I want to know...” The establishment of several phase lines, from which the reconnaissance patrol should also report, even without enemy contact, may be advisable.

99. When determining the time of departure, the time needed by the patrol leader for his preparations must be

taken into consideration. Frequently, the situation can demand a rapid dispatch of the reconnaissance patrol.

100. In general, reconnaissance patrols can only reconnoiter by daylight. At nighttime, the activities of the reconnaissance patrol are generally limited to establishing or maintaining contact with the enemy and determining the location of his forward outposts.

## SECURITY ON THE MARCH

101. The lead troop of the two troops generally provides security on the march. In such a case, it organizes for the march as if on its own (Booklet 2, Numbers 250-258 and Booklet 3, Numbers 142-147). The establishment of a rearguard may be necessary.

102. If the terrain necessitates the motorized elements be separated from the reconnaissance battalion, then special security measures might be necessary.

103. With regard to antiarmor defense, the antitank guns are generally distributed among the individual parts of the march columns.

## SECURITY WHEN RESTING

104. To secure quarters, it is generally preferred to use the bicycle troop. Antitank guns are usually attached to it for that purpose.

Security of the roads is generally assumed by the forces used to secure the march.

105. Orders must be issued each time as to whether the horses can have their saddles removed to better rest them.

106. Paragraph numbers 49-53 govern the security measures for rests and quartering areas.

## MARCH AND REPORTING ACTIVITIES

107. The reconnaissance battalion establishes a reconnaissance reserve, reporting points and backup for its reconnaissance patrols. It moves forward by bounds, generally avoiding the main road and selects a march route that is located as much as possible in the middle of the reconnaissance zone.

108. The reconnaissance battalion consists of units with differing march speed capabilities.

The attempt must be made that despite these differing march speeds between the bicycle troop and the horse-mounted troop that both can be moved forward in such a manner that a unified command of the battalion is possible

when the enemy is encountered. Since the bicycle troop must have its machine-gun section and its mortars when it deploys, those two generally follow directly behind the bicycle troop.

If the bicycle troop forms the advance guard, then a greater distance to the horse-mounted troop must follow so that the motorized sections can follow their troop in bounds.

109. The horse-mounted backpack radio sections generally march with the horse-mounted elements of the headquarters.

110. In individual cases, it can be advisable to bring up the motorized elements of the reconnaissance battalion either completely or partially as a motorized section. The elements needed for reconnaissance and combat—the motorized section of the bicycle troop, in the event that it is not marching with its troop (by exception), the motorized elements of the signals platoon and the heavy troop—are placed at the beginning. The motorized section is to be brought forward in such a fashion that it will be available in a timely manner prior to enemy contact.

111. In general, the combat trains of the horse-mounted troop marches with it, since the remaining elements of the reconnaissance battalion have motorized combat trains.

In the case of the reconnaissance battalions in East Prussia, the horse-drawn combat trains and the horse-drawn elements of the ammunition and equipment sections are brought forward together as a group, generally in front of the motorized section.

112. If the situation forces the reconnaissance battalion proper or just the mounted troop to advance into terrain that is inaccessible for motorized vehicles, then the commander may not allow himself to be inhibited in his decision by the lesser terrain mobility of individual elements of the reconnaissance battalion.

The temporary separation of the radio sections and the loss of the ability to report by mounted and bicycle messengers must be accepted in certain situations.

113. In general, the radio sections of the reconnaissance battalion are employed at the individual intermediate objectives for establishing contact with the division and with the reconnaissance patrols outfitted with radio sets; if the situation presents itself, also with any motorized reconnaissance battalion that might be employed in approximately the same area. Every opportunity is to be used at any other halts to establish contact with the division, reconnaissance

patrols and motorized reconnaissance battalions that may be employed. The reconnaissance battalion can also communicate with the division and an armored reconnaissance patrol during the march.

114. Paragraphs 62-72 apply in their entirety to the activities of the reconnaissance battalion.

## **THE CROSSING OF BODIES OF WATER**

115. Based on the situation, bodies of water must usually be crossed by reconnaissance battalions quickly.

Horse-mounted soldiers, bicyclists and motorized vehicle drivers can be crossed rapidly by means of rafts. (Booklet 2, paragraphs 347-353 and Booklet 3, paragraph 163)

116. The reconnaissance battalion has two large and two small rafts at its disposal for crossings. These are kept in the engineer equipment vehicle in the ammunition and equipment section.

The horse-mounted engineers of the horse-mounted and bicycle troops must be consolidated into an engineer detail under unified command for crossing. If no divisional engineers are available, then the horse-mounted engineers—after the horse-mounted soldiers and the bicyclists have been crossed—can cross over the combat trains of the horse-mounted troop, the staff cars and the radio sections of the signals platoon by means of a raft ferry constructed out of rafts and field-expedient materials.

117. For crossing the heavy troop, the motorized combat trains and the ammunition and equipment section, divisional engineers are necessary, if other field-expedient means are not possible. Requesting them must be done in a timely manner.

118. Reconnaissance on the far side of bodies of water must often be continued solely by the horse-mounted elements that have crossed. For purposes of transmitting reports to the rear, it may be necessary to leave behind the medium radio section under cover at an appropriate point behind the river obstacle and give it the reports for transmission to the division.

## **RESUPPLY**

119. The combat trains and the ammunition and equipment section contain a basic supply of ammunition, demolitions, rations, medical and veterinarian supplies, fuel and crossing materials.

120. With regard to rations, the reconnaissance battalion carries an abbreviated portion for every man in the

vehicles. An addition, complete “emergency” ration is provided to the field mess.

A third of a daily portion of feed is carried on the horse, with two-thirds of a daily ration maintained in the combat trains or in the ammunition and equipment section.

121. The rations trains are capable of accepting rations for two days.

The horse-mounted troop has at its disposal horse-mounted Rations Train I (The horse-mounted troop in East Prussia has a horse-drawn Rations Train I and Rations Train II).

The remaining rations trains of the reconnaissance battalion are motorized and consolidated for all elements of the reconnaissance battalion.

122. The baggage trains for all elements of the reconnaissance battalion are motorized.

123. The rations and baggage trains may not be allowed to disrupt the movements of the reconnaissance battalion and the formations that follow it. The division may

dictate that the trains be left behind—in their entirety or only partially—in the area of the main forces and later sent forward to the reconnaissance battalion.

124. For care of the wounded and sick, see *Heeres-Dienstvorschrift 21*.

125. For wounded and sick horses in combat situations, the battalion veterinarian establishes a horse medical clearing area in the vicinity of the combat trains. Horses capable of moving are taken from there by personnel of the horse-mounted troop to the division horse collection point established further to the rear by the veterinary company. Horses incapable of moving are to be reported to the horse collection point for evacuation.

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## VI. CONTAMINATED TERRAIN

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