

FOR OFFICIAL USE ONLY!

Training Manual

FOR THE

Panzertruppe

VOLUME 11C

GUIDELINES

FOR COMMAND AND CONTROL AND COMBAT EMPLOYMENT OF THE
ARMORED RECONNAISSANCE BATTALION (ARMORED)

15 AUGUST 1944

!

General Inspectorate of the Armored Forces

Headquarters, German Army High Command, 15 August 1944

I approve *H.D.v. 299/11c (NFD)*, "Guidelines for Command and Control and Combat Employment of the Armored Reconnaissance Battalion (Armored), dated 15 August 1944."

Guderian

!

TABLE OF CONTENTS

[Not Included]

PREFACE

This manual is based on the tables of organization of the Armored Reconnaissance Battalion 44 (Open Organization) within an armored division as given in Annex 1.

I. NATURE AND MISSIONS

1. The **Armored Reconnaissance Battalion (Armored)** is the eyes of an armor division.

Its particular nature lies in the ability to switch between reconnaissance and fighting. It is fast, maneuverable and capable of crossing all types of terrain.

Based on its being equipped with numerous armored vehicles and automatic weapons and possessing a wide operating radius, the battalion is also capable of conducting reconnaissance through force.

2. The **main mission** if the battalion is the **conduct of tactical reconnaissance** for the division, so that, in supplementing aerial reconnaissance, the prerequisites for its employment can be created. In addition, the battalion is suitable for the execution of **combat missions**.

Those are:

- (1.) Employment as an advance guard.
- (2.) Advances into the rear and flanks of the enemy.
- (3.) Pursuit.
- (4.) Screening of gaps along the flanks, in the rear and to the front.
- (5.) Screening of withdrawal movements.
- (6.) Advancing into enemy air-landed and parachute formations; destroying, sealing off or monitoring them.

(7.) Masking of friendly movements.

3. Those responsible for reconnaissance are the armored reconnaissance sections. Combat power and support are provided by the armored reconnaissance companies and the heavy company.

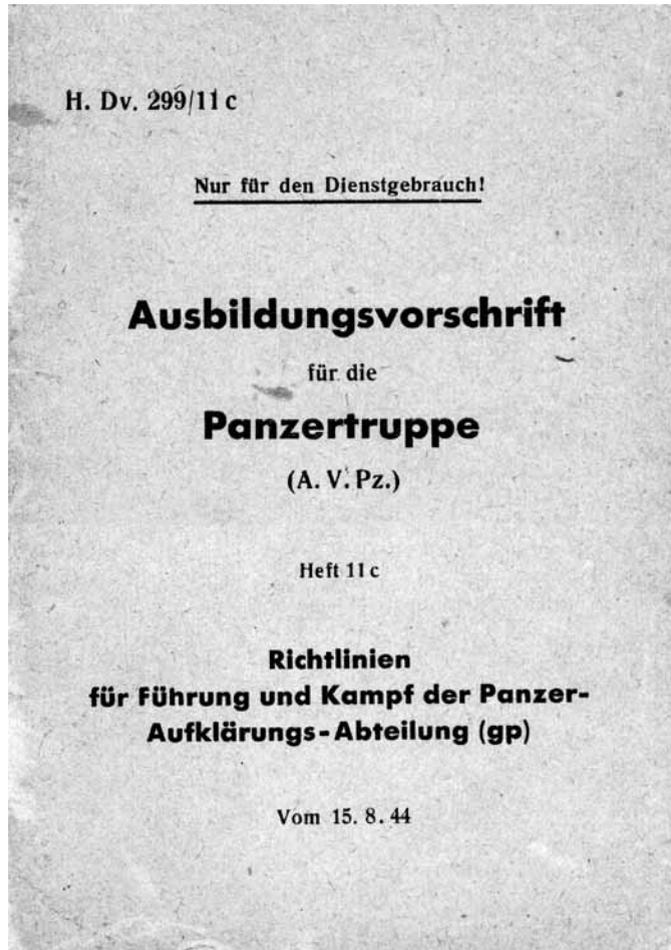
4. Reconnaissance is only successful when the battalion is employed in a timely manner, in order to get the necessary head start (time – 3-4 hours; space – up to 100 kilometers).

5. To conduct its reconnaissance, the battalion is assigned a movement zone (reconnaissance zone). Unless there are special reasons (advance guard), it is not to be limited to a single route.

The width of the reconnaissance sector can be up to 60 kilometers; in the case of open flanks, even

more.

6. When given separate **combat missions**, the battalion is to be reinforced with **mobile antitank elements** (self-propelled antitank guns, tank destroyers, assault guns), **engineers** and **artillery**.



7. Combat with tanks or strong enemy defensive forces is to be avoided, so as to be able to advance at another location. The **weak armor** of the armored cars and the *SPW*'s **prohibits their use as tanks.**

8. **The battalion fights mounted.** That is the only way that that armor, maneuverability and strong firepower can be fully exploited.

9. Every type of reconnaissance is to also be simultaneously used to scout roads and terrain and report to the division in a timely manner.

10. Advancing and fighting across the breadth of the sector is a hallmark of its organization. Pressed together in a small area, it cannot be completely effective.

11. **Every splitting up of the force** by assignment of dual missions calls the success of the operation into question.

12. **Short-term** missions, which can be performed through movement, correspond to the organization and equipment of the battalion.

Any combat operations lasting a longer time bring about increased attrition and, as a result, reduced capabilities.



II. LEADERSHIP

13. The armored reconnaissance battalion (armored), as the fastest formation of the armor division, has to be led in a **bold** and **agile** fashion. Personal reconnaissance, rapid decisions and short orders guarantee success. Concerns about the flanks may not be allowed to paralyze the boldness of actions.

14. The battalion needs to be informed about the **intent** of the division so as to be able to act **independently** in the event of signals disruptions.

15. Thorough map studies, aerial photography and geographical descriptions of a military nature supplement the written materials for evaluating the terrain and estimating the situation.

16. The battalion commander personally directs the employment of the patrols.

17. The commander needs to keep the subordinate leaders and noncommissioned officers abreast of the situation so that that can act properly at any time.

18. Keeping forces together for **unified, simultaneous** employment is essential.

19. **Rapidity** of movement and its **concealment** are the prerequisites for surprising the enemy.

20. It should always be strived to fix the enemy to the front while advancing into his **flanks and rear.**

21. The decision to **fight on foot** is only to be made when the terrain or the mission forces it. The operations then follow guidelines established in *H.Dv. 130/9.*

22. By using the **mortar** and **cannon platoons**, the commander is in the position to decisively influence the fight by means of establishing a main effort for fires. The **unified** employment of the platoons is a prerequisite.

The attachment of individual sections to the armored reconnaissance companies is only justifiable when operations are being conducted on a broad front, in broken-up terrain or separate employment.

23. The **battalion commander's place** is far forward. Nearby are:

- Commander of the heavy company;
- Commanders of the attached weapons;
- Battle staff;
- At least two reserve patrol sections.

The battle staff consists of:

Adjutant; liaison officer; signals officer; battalion surgeon; messengers and orders bearers; as well as communications centers needed for command and control and reconnaissance traffic.

During the fighting, the commander belongs in the **hot spot** of the fighting. He makes sure weapons fires are coordinated. He will often be at a place—rapidly identifying a favorable opportunity—where his personal presence can bring about decisive success.

24. The **commander** remains in **contact** with the **leaders of the attached units** (command channel) and

monitors the radio frequency of the next higher command or other important connections.

When leaving the command post, the connections with the units remain intact. Contact with the battle staff is also part of that. During operations, radio contact between the commander and the battalion may never be lost.

25. **Either** the commander **or** the adjutant must be at the command post.

The command posts and the vehicles belonging to them are to be so identified.

26. **Rapid, unmistakable** and **short orders** are important for commanding the battalion. Everything possible must be done to shorten the time from the issuance of the order to its execution (warning orders, map graphics).

27. **Verbal orders** make the strongest impression and transform the commander's will most effectively into deeds. Every mission is to be repeated by the recipient so as to avoid ambiguity.

Group orders are only to be issued when the situation allows the gathering of the leaders.

When doing so, the units and weapons that will need the **longest time** to prepare for their operations will be given their **orders** first.

28. Written orders are to be issued when **time** for them is available or if that is the **only way** to effectively coordinate the employment of all weapons.

29. Command and control is conducted by **radio** during combat. The orders must be **short, unmistakable and clear**.

30. The primary means of communications is electronic, by means of radio equipment.

Additional means of communication include telephones, foot and motorcycle (*Kettenrad*) messengers and, in the case of important orders and reports, officers.

In difficult situations and in areas where there are partisans, it is well advised to send two messenger vehicles.

31. For the of signals missions within the armored reconnaissance battalion, see *H.Dv. 299/9*. For radio traffic, *H.Dv. 470/2* and *421/4b* are in force.

32. **Contact with the main effort** is to be assured. Landlines are to be **supplemented** by radio.

Rapid contact between the radio communications centers and the tactical commanders (Battalion commander, Company Commander) must be assured.

During **nighttime** hours, radio communications are often subjected to atmospheric and civilian radio disruptions. Patrols and units, for which only radio communications exist and whose **mission extends into the night**, must be provided with all their orders **before it starts to get dark**.

33. The **tactical commander** carries **responsibility** for **adherence to signals security** in radio, Morse code and landline traffic.

All radio traffic is monitored by the enemy!

For that reason, the **signals security** of the messages assumes **great importance**. Radio messages are to be **encoded** (*Rasterschlüssel 44* – Communications Instructions with Encoding) or concealed by **deception** or **round-about ways** (traffic tables, Morse code tables).

When giving names of localities, use the *Stoßlinie*¹ and the Map Report Nets (see Annexes 3 and 4).

34. **Radio silence** is to be strictly observed until initial enemy contact.

Breaking radio silence is a tactical measure: It must be ordered by the **local commander**, who bears responsibility.

On the other hand, armored patrols report by radio at regular intervals, from report lines or report points before contact with the enemy.

35. **Reduced radio traffic** will be directed in quiet areas and during times that combat operations have abated.

Whenever radio traffic is reduced, any type of **radio traffic concerning logistics matters**, for **recurring reports** and for **controlling marches** is forbidden. Only pressing tactical traffic may be passed.

36. The commander is supported by the:

(1.) Adjutant by:

- Preparation of orders and reports;
- Maintaining the situation map;
- Directing duties within the headquarters; and
- Preparation of personnel matters and awards.

¹ Translator's Note: = (roughly) advance line. The *Stoßlinie* is shorthand for identifying locations on a map. It is explained in detail in Annex 3.

(2.) Liaison officer by:

Continuously informing attached units on the situation and intent of the battalion;

Transmittal of requests for logistics from the units to the commander of the logistics company;

Poison gas defensive measures;

Interrogation of prisoners and local civilians;

Maintaining the daily logs; and

Advice concerning intellectual stewardship (*NS-Officer*).

(3.) Signals officer by:

Advice to the commander concerning the use of communications means;

Preparation of signals instructions; and

Monitoring of classification directives.

The distribution of the special duties can be changed by the commander based on the capabilities of the individual officers.

(4.) Battalion surgeon by:

Controlling medical affairs;

Evacuation of wounded and sick in coordination with the liaison officer or the commander of the logistics company; and

Assuring the supply of medical equipment.

In addition, the physician's assistant sets up the troop clearing station on order of the battalion surgeon and has the wounded transferred to the main clearing station.

The troop clearing station is located near the forward supply elements or in the vicinity of the battalion command post.

(5.) Maintenance officer by:

Ensuring the mechanical reliability and operational readiness of the vehicles (proper care and maintenance; repairs);

Ensuring the maintenance logistical needs are met (replacement parts);

Advice concerning the employment of the maintenance services and the leadership of the maintenance section;

Monitoring the training concerning maintenance issues; and

Responsibility for taking care of the bridging equipment.

!

III. COMBAT RECONNAISSANCE

a) Tactical Reconnaissance and Reporting

37. The **mission of reconnaissance** is to **quickly** form a picture of the enemy, his actions and his **strength**, complementing aerial reconnaissance.

Complete clarity concerning the enemy will often only be brought about by **fighting**, especially through bold and aggressive operations directed against him.

38. Reconnaissance will afford the division the necessary information it needs for operations **all by itself** whenever bad weather or heavily vegetated terrain restricts the employment of the *Luftwaffe* or makes its employment impossible. When **operations are conducted at the same time** in the division's sector, the **closest of coordination** between the aerial reconnaissance and the battalion needs to be ensured.

39. Initially, patrols will only be employed **along the main roads**.

The number of patrols is dependant upon the width of the sector and the density of the transportation network.

The mission of the **first wave of reconnaissance** is to establish contact with the enemy.

The Battalion Commander holds a sufficient reconnaissance force in reserve so as to be able to execute new missions.

40. The employment of **new patrols** is necessary:

(1.) To **add density** to the first reconnaissance wave;

(2.) To **replace** patrols from which reports have not been received for some time;

(3.) When receiving a new mission from the division in another direction.

41. Armored cars (**wheeled**) are to be used when there are good road and terrain conditions, which allow them to exploit their speed for **long-range objectives**; **Half-track and fully tracked vehicles** are to be used on poor road and terrain condition, especially to add **density to the reconnaissance**.

To conduct combat reconnaissance in terrain where the wheeled patrols are limited exclusively to improved roads, the employment of mixed patrols, consisting of both wheeled and halftrack/fully tracked vehicles, is imperative.

42. The **first** mission for the patrols is the **last** opportunity for the commander to personally influence the patrol leaders and, correspondingly, must be **thorough**. Supplementary missions and constant orientation on the situation is to be conducted by means of short radio messages.

43. The proper **selection of the patrol leaders** guarantees the success of the missions. The patrols are to be referred to by the names of their leaders.

44. A least an hour's head start must be given to the patrols so that the battalion can evaluate the results of the reconnaissance.

Employing them too hastily negatively influences the reconnaissance and leads to casualties.

45. **Warning orders** allow thorough preparation without the loss of time. The contain:

- Location and time for the issuance of the orders;
- Intended march time;
- Likely mission (Reconnaissance or raid; equipment needed);
- Likely route of march;
- Length of the operation (rations); and
- Maps.

46. The signals officer is to be notified whenever it is intended to employ patrols.

47. The **order by the Battalion Commander** to his patrol consists of the following:

- (1.) **Enemy:** Strength and type; information where enemy contact is expected and all of the details necessary for the patrol concerning the enemy.
- (2.) **Situation and intent** of the division; friendly outposts and neighboring forces.
- (3.) **Mission and intent of the battalion:** Location or route of march.
- (4.) **Leader, strength and composition of the patrol.**
- (5.) **Mission of the patrol and the concept of the operation.**

(6.) **Reconnaissance objective and route or general route.**

(7.) **Departure time; neighboring patrols.**

(8.) **Communications instructions** (signals instructions).

(9.) **Report requirements** (report lines; *Stoßlinie*).

(10.) **Actions at certain terrain features and localities.**

(11.) **Actions after reaching the reconnaissance objective.**

(12.) **Recognition signals upon return of the patrol** (especially at night).

Giving two missions to a patrol is to be avoided.

If there is sufficient time, the patrol leader will listen in on the orders being given to the other patrols. As a minimum, they are to be informed of the missions of the neighboring friendly patrols.

48. **The strength and organization of the patrol** is based on the mission, situation and terrain.

Within the armored reconnaissance companies, one differentiates between:

Heavy armored reconnaissance sections (2 8-wheeled armored cars)

Light armored reconnaissance sections (3 light armored cars)

Halftrack and fully tracked sections (three vehicles)

Reinforced armored reconnaissance patrols (light or heavy armored cars, reinforced with heavy armored cars (7.5-centimeter) or elements of the reconnaissance companies, heavy weapons, armor-defeating weapons and, as well, armored engineers.)

If a patrol has to be provided from the armored reconnaissance companies, then it will consist of at least two vehicles. For the submission of reports, Radio Set f will be used for shorted distances; in the case of greater distances, a radio *SPW* will be provided (the company headquarters section *SPW*).

As a matter of principle, armored cars and SPW will not be employed alone.

49. Patrols will be reinforced to:

Conduct reconnaissance against extended obstacles and barriers.

Conduct reconnaissance across waterways.

Conduct early occupation of important sectors or terrain features.

Gain reconnaissance results by the engagement of weak enemy outposts and armored reconnaissance sections.

Execute demolition missions.

Conduct reconnaissance through partisan territory, extensive woods and mountainous terrain and at night or during fog.

50. In the case of **reinforced patrols unified command** is to be established and radio contact within the patrol assured.

51. Reliable **persons familiar with the localities or the language** make it easier to execute the mission.

52. During the **orders conference**, the signals officer distributes the signals instructions to the patrol leaders.

As a practical measure, armored patrols that are employed next to one another are given the same frequency.

53. The **patrols report by radio** using Morse code; in the case of **radio silence** and when **short distances** are involved, a messenger vehicle will be used. The reports of the neighboring patrols will be monitored on the same frequency. If that is not possible, the reconnaissance results of other patrols and aerial reconnaissance will be disseminated if the knowledge of that is important for their mission.

54. The **Battalion Commander** evaluates the reports of the patrols and follows up in the case of discrepancies. He will render a **summary report** to the **division**:

- (1.) After important sectors have been reached.
- (2.) By time intervals (every 1 to 2 hours).

Important reports will be forwarded immediately. **It is better to report frequently and succinctly rather than infrequently and long.** In the case of a fundamental change in the situation or if important documents are captured, an officer will be sent to inform the division.

Reconnaissance results are to be exchanged with neighboring formations. To that end, the signals instructions are to be requested from the division before operations start.

55. Reports to the division contain:

(1.) **Estimate of the enemy situation:** Location; actions and direction of movement; type; strength; deployment (gaps); organization; appearance of tanks and anti-tank guns; chemical obstacles.

(2.) **Terrain data:** Evaluation of the roads, bridges, fords, terrain difficulties and information concerning barriers, terrain enhancement and obstacles.

(3.) **Friendly situation:** Location; intended measures; casualties.

56. **Combat reconnaissance** is to be conducted before and during every type of combat operation by every unit; at the latest, upon deployment for combat. It provides the information needed for the conduct of the fight.

The Battalion Commander establishes objectives and limitations for combat reconnaissance. Above and beyond that, all unit leaders are responsible for **continuous combat reconnaissance**—even in the absence of orders—in their sectors.

To preserve **surprise**, the Battalion Commander can limit combat reconnaissance both in time and space.

Constant visual observation—with the naked eye and through magnification—complements it.

57. Every patrol—whether mounted or on foot—is responsible for **route reconnaissance** (including chemical contamination) **without the requirement for extra orders to do so.**

The trafficability of roads, bridges (load capacity) and the terrain is to be reported **immediately**, whenever this might negatively influence the advance for the following forces or cause them to change their route of march.

After returning, the patrols report in detail on the results of their route reconnaissance.

58. For important route/area reconnaissance, specially formed reconnaissance parties are to be employed. The use of officers from other branches is frequently called for.

59. **Objects of route/area reconnaissance:**

For the march: Road foundation; trafficability of the roads for vehicles of the battalion and the division (lack of dust; hard surface; craters); road and path routes (difficult places; sand; marsh; craters; curves); width of the roads (bottlenecks; bypass places; 1, 2 or 3 lanes); bridges; concealment options for halts and rests.

In winter: Trafficability of the paths and roads (depth of snow, ice; snowdrifts).

For cross-country movement: Available routes and their condition; trafficability of the terrain; cover for approaching the enemy; areas for concealed concentrations of vehicle groups; high ground for observation; rest and bypass

locations; (in the winter) capacity on stretches of ice and soft ground and depth of snow on the sides of trails.

In the case of contaminated terrain: Extent; lanes; enemy forces covering the contamination.

!

IV. MARCHES

a) Execution

60. Time **reconnaissance of the march route** is necessary for the smooth execution of the march (route-marker detail). Establishment of rest areas is to be determined at the same time. Whenever the route is difficult, battalion engineers are to be present.

61. The unit leaders are to be informed of **intended march movements** by means of warning orders. The warning order contains:

Intended march route

March speed

March route

Route reconnaissance

Orders conference (oral): When, where, participants.

62. The **battalion order** for the march must contain:

(1.) Enemy situation; friendly situation; friendly forces.

(2.) Mission and intent of the battalion.

(3.) March objective and route.

(4.) Tactical reconnaissance, route/area reconnaissance and traffic control.

(5.) March organization.

(6.) Start time, start point, march officer.

(7.) Conduct of the march (lead vehicle speed, halts, rests and light levels).

(8.) March security (flank security; measures to be taken for air defense and antitank defense).

(9.) Supply (rations, fuel and medical).

(10.) Location of the leader.

63. **Every driver** must be informed of the **march route and the march objective** (write it down!).

64. To **maintain communications on the march**, motorcycle messengers and radio will be used, is radio silence is not in effect.

65. The **daily march distance** on good, traffic-free roads with minimal ascents and curves is between 150 and 200 kilometers. Poor weather and terrain conditions will diminish this performance considerably. During mud periods on unimproved roads, the daily march distance will sink to a few kilometers and cause preternaturally high demands on materiel and high fall-out rates for vehicles.

66. The **lead speed** is to be ordered (maximum speed for the lead vehicle). Based on the road conditions and the running gear on the halftracks and fully tracked vehicles, it is between 10 and 25 kilometers an hour.

67. The **separation of tracked and wheeled vehicles** is imperative. To protect the equipment, fully tracked and half-tracked vehicles march on summer routes.

68. Night marches reduce the danger of enemy aerial observation and attack. They preserve surprise.

Prerequisites are tight **march and light discipline, cohesiveness, reconnaissance of routes** and **traffic control**.

Consistent **light levels** are to be ordered. Driving without lights on bad routes results in a large fall-out rate. The kilometer-per-hour rate is often no greater than 5 kilometers an hour.

69. **Halts** of up to 15 minutes are to be ordered every 2 to 3 hours; **rests** of at least 2 to 3 hours every 12 hours. During the winter, the drive times are shorter and the halts longer in order to avoid frostbite.

Halts and rests are used to refuel, check and maintain vehicles, as well as to issue warm rations.

70. When **conducting reconnaissance** for rest areas, **concealment, the ability to rapidly occupy it and routes for exiting it** are to be considered.

Guides, who have been sent out in advance, speed up the occupation of a rest area.

71. When halting, the **march route is to be kept clear**. If that is not possible, the distances from company to company are to be between 200 and 300 meters and from vehicle to vehicle at least 20 meters. Only by doing that is fluid traffic control (block system) to be assured.

72. Whenever the enemy has air superiority, the marches will be moved to the nighttime hours.

If a march must be conducted during the day, intervehicular distances of at least 100 meters during halts and on the move are necessary.

73. In addition, *H.Dv. 472* and *Merkblatt 10/17* contain directives for the march.

b) March Organization and March Security

74. If enemy contact is not anticipated during the march, the battalion will march with 2-5 minute intervals from company to company. The **march order** is based on the **march speed capabilities** of the companies. As a practical matter, wheeled and tracked vehicles are to be separated.

75. **When approaching the enemy**, the battalion will march in **tactical order**.

76. The 1st security elements are the patrols sent out ahead of time (lead time of 1 to 2 hours).

77. Moving directly ahead of the battalion is the **patrol in front of the lead elements**. It is restricted to the route of advance (lead time: 15 minutes). If a battery has been attached to the battalion, the forward observer moves with this patrol.

78. The **lead company** moves at the head of the battalion (armored reconnaissance company). The company is reinforced with 7.5-centimeter cannon vehicles in relatively open terrain, with mortars in broken terrain and with rapid-fire weapons (2-centimeter) in woods and very broken terrain. The commander of the lead company monitors the reports of the patrol moving in front of the lead elements.

79. The Battalion Commander is collocated with the lead company so as to gain a clear impression early on of the enemy and the terrain and be able to employ or turn the battalion rapidly in a tactically proper manner and impose his will on what is happening. With him is the battle staff.

80. The battalion follows the lead company in closed formation. As a precautionary measure, based on the enemy situation, engineers, heavy weapons or antitank forces may be integrated up front.

81. Patrols that have not been otherwise employed are used as air guards along the march column.

82. One armored reconnaissance section with radio capabilities is to be employed to bring up the battalion rear (officer). It is to be given maintenance and recovery means.



V. DEPLOYMENT FOR COMBAT

83. The entry of the armored reconnaissance battalion (armored) into the fight is often preceded by a **deployment to increase combat readiness**.

84. There are no templates for a deployment. It is determined by the terrain, the enemy situation and the intended method of combat.

In the case of **unclear situations**, the battalion is brought forward in a **narrow, deep form** (See Illustration 1 for guidance.)

If the enemy situation and the mission provide the **basis** for the **intended execution of the combat operation**, then the companies will deploy **on line** from the beginning.

85. The **order to deploy** will be given during movement by means of individual orders. They contain:

- Enemy,
- Battalion intent,
- Combat reconnaissance,
- Employment right, center and left: Intervals (laterally and internally)
- Direction of march and
- Location of the commander.

86. Deployment must be conducted early on in **open terrain with long fields of observation** and in cases of **long-range artillery fires and threats from the air**. The order contains:

- (1.) Enemy and friendly situation.
- (2.) Mission and intent of the battalion,
- (3.) Tactical and terrain reconnaissance,
- (4.) Organization of the battalion (individual and unit intervals; contact),
- (5.) Points or routes for the direction of march,
- (6.) Security for the deployed advancement; protection of the flanks.

- (7.) Location of the logistics company or forward logistics point,
- (8.) Signals instructions,
- (9.) Location of the commander.

The location of the armored car company and platoons is determined by the situation if they are not already committed to tactical reconnaissance and security.

87. The choice of how to deploy and the continued deployment within the companies will be left up to the company commanders.

The deployment will be kept narrow and deep for as long as possible so as to better overcome terrain obstacles and escape detection as much as possible.

88. The deployment is to be **covered** by **heavy weapons** or **artillery** in direct support in bounding employment.

!

VI. ATTACK

a) In General

89. **Mounted attack exploiting speed** promises the greatest success.

The attack conducted against the flanks and rear while simultaneously fixing forces to the front is the preferred method of fighting. Only difficult terrain and obstacles should force temporary dismounting.

90. The mission of tactical reconnaissance is to determine the weaknesses of the enemy. Combat power and firepower are to be employed against those weaknesses. A surprise and rapid initiation of the attack, together with a sudden start to the fires of all weapons, is the goal.

91. **Enemy antitank weapons** are the most dangerous enemy; their elimination is of paramount importance. Some of the means to engage them: Early identification through observation by all weapons systems; target designation through the use of pyrotechnics (flare guns, tracer rounds); firefights from concealed positions; temporary use of the fastest speed possible; and blinding through artificial smoke.

92. **Maneuverability** with armored protection allows the battalion to shift its main effort quickly and in a flexible

manner to sectors where initial success was found. Each and every machine gun and cannon is to be committed into the fight without regard for consequences.

93. The **heavy cannon platoon** is the weapons system of the battalion for forming the main effort. It will be employed by the commander in its entirety at the center of the fighting and supports the attack in conjunction with all of the other weapons through unified fires.

It receives clear-cut combat missions.

During **mounted** combat, it covers the attack by bounding movements and breaks its firepower to bear through fires from positions on the sides and flanks.

In broken terrain, the cannon platoon is attached to the reconnaissance companies.

94. The medium mortar platoon reinforces the main effort of the fight through its high-angle fires. Hallmarks of mortars are ongoing ability to fire, great effectiveness on targets in the open and against enemy behind cover, as well as rapidity of fire. The mortar platoon is also to be employed as a platoon.

95. The **engineer platoon** is to be used to improve routes and overcome small obstacles, as well as locate and disarm mines.

96. The **attack width** of the battalion is approximately 800 meters.

97. **When attacking with a limited objective**, the ground gained is to be immediately prepared for defense.

b) Attack From a Movement to Contact

98. The **attack from a movement to contact** is something that especially corresponds to the battalion's core competencies. Immediate combat capability from the march and the cross-country trafficability of its vehicles, as well as armor protection, make it suitable for that.

It is recommended against an enemy, who is not completely ready to defend and demands

Rapid and accurate estimate of the situation

Bold and wholehearted **decisiveness**,

Courageous and powerful aggressiveness.

99. During an attack from a movement to contact, a **blow against the wings and in the deep flank** of the enemy, while fixing to the front, leads to the quickest success.

100. The order to attack is issued on the radio, if time is pressing. Usually, a **halt to the approach march** will precede the attack so as to allow deployment for combat to take place. Then, orders will be issued orally. The order contains:

- (1.) Enemy,
- (2.) Mission and intent of the battalion,
- (3.) Combat missions to the units (type of combat; organization of the battalion; attack objectives; center of sector or orientation points),
- (4.) Support by the heavy weapons,
- (5.) Armored car company; signals platoon; logistics company,
- (6.) Signals communications,
- (7.) Location of the commander.

101. The battalion moves against the enemy with the reconnaissance companies on a broad front. The attacked is to be accelerated to the **highest speed possible** when distances are less than 600 meters from the enemy.

The **heavy weapons** combine fires to support the main effort, especially against enemy antitank guns. The firing of all on-board machine guns prior to the penetration has a strong psychological effect.

102. Armored car sections not employed in the attack support the attack by fire or securing the flanks of the reconnaissance companies in accordance with the mission assigned by the Commander.

103. After ejecting the enemy, new reconnaissance is to be initiated. Reasonable situations are to be decisively exploited, after reporting to the division.

c) Deliberate Attack

104. In attacking an **enemy prepared to defend**, the battalion prepares a **deliberate effort** in order to ensure the coordinated fires of all weapons.

The order for a deliberate attack contains:

- (1.) Enemy and friendly situation,
- (2.) Mission and intent of the battalion,
- (3.) Assembly areas; attack objective; intermediate objectives; attack start time,
- (4.) Combat missions for the units (forward edge of the assembly area; separation lines; time for concluding preparations),
- (5.) Combat reconnaissance,

- (6.) Heavy weapons,
- (7.) Reserves; supply elements,
- (8.) Troop clearing station,
- (9.) Signals communications,
- (10.) Battalion command post.

105. The occupation of the assembly area and the assembly area itself must be out of range of observed enemy fires.

106. Routes into and out of the assembly area are to be marked. The vehicles will be **camouflaged**; the soldiers **dig in**.

107. The assembly area is to be secured against armor and aerial attack.

108. The Battalion Commander directs the **preparations for the attack** (tactical reconnaissance; terrain reconnaissance) and briefs the company commanders on the attack sector.

The intent of the attack may not be given away by its preparations. Radio silence is to be employed.

109. The battalion lacks the means of clearing a path through guarded **minefields**. A passage of weakly **guarded minefields and the creation of lanes is only possible at night or in conditions of fog**.

Mine obstacles will be cleared, if they cannot be bypassed, after eliminating or suppressing the enemy guard force.

110. **Attacks with SPWs** promise great success at night due to the elimination of aimed and observed defensive fires, especially from artillery and armor-defeating weapons.

111. Night attacks are to be conducted with **limited objectives**. Reconnaissance of the attack sector is always imperative; whenever that is not possible, then thorough **map study** and the evaluation of **aerial photos** will decide the trafficability of the terrain.

112. Illuminating the battlefield by setting houses and haystacks in the enemy positions on fire makes the attack easier. Orientation fires to the rear can be used to supplement the above.

113. The attack will be conducted mounted into the enemy. At that point, a portion of the crews will dismount to clear enemy pockets of resistance and to safeguard the

vehicles against close-in attacks. The remaining portion remain on board to main the vehicular weapons.

After penetration, **contact with the enemy** will be maintained by means of tactical reconnaissance.

In any case, the attack is to be organized in such a manner that the objective will be reached before the onset of daylight. If there is an immediate transition to the defense, the *SPW*'s are to be sent rearward or dug in to support the defensive effort.

114. Attacks along roads, courses of water or ridgelines facilitate orientation.

Heavy weapons and artillery are only to be employed at night if the firing data is gained by day. The forward observers move up to the forward lines.

!

VII. PURSUIT

115. The battalion will be employed in the pursuit with long-range objectives. **The object of pursuit is to pass the enemy.**

Advancing along secondary routes or cross-country is oftentimes more successful and faster due to lessened enemy resistance than moving on the main roads.

Pursuit is to be continued at night.

116. **Serious resistance** is to be bypassed and the destruction of those enemy forces left to follow-on formations.

Aggressive operations lead to a decision and eliminate a resumption of fighting.

117. Reinforcement of the battalion with antitank elements and engineers is necessary.

118. If the battalion has penetrated deeply into the enemy's area, then any **rests** and actions at **night** must be thoroughly **safeguarded** against ambushes and immediate counterattacks (hedgehog).

119. During a pursuit, the forward logistics elements are to be incorporated into the fighting elements of the battalion.

120. Pursuit is to be continued until all available fuel and ammunition has been expended. Expatriated resupply is to be arranged in a timely manner.

!

VIII. DEFENDING ON A BROAD FRONT

121. In the **defense**, the battalion can screen **broad sections** of gaps in the front and along open flanks.

122. Elements of the reconnaissance companies, reinforced by heavy weapons, occupied the most important terrain features **in strongpoint fashion**.

123. Closely coordinated **reconnaissance** that is given combat missions monitors the enemy.

124. The **main body** of the battalion is to be held back. It will be employed in **a mobile fashion** to conduct immediate counterattacks in cases of enemy penetrations or where an attack is expected based on reconnaissance results.

125. It is necessary to reinforce the battalion with antiarmor elements; reinforcement through engineers and artillery is to be attempted.

The antiarmor forces are to be held back initially and then employed in strongpoint fashion in areas where there is danger of an enemy penetration by armor into the strongpoints.

Attached towed antitank guns will be allocated to the strongpoints.

126. Employment as the **division's counterattack reserve** necessitates comprehensive reconnaissance of the terrain and the roads, as well as establishing contact with the employed elements, especially the artillery, so as to ensure coordination across the spectrum of employment options.

127. When standing armored patrols are employed in the divisional sector and along the flanks, the available signals means will be made redundant so as to ensure timely alerting.

!

IX. DISENGAGING AND WITHDRAWALS

128. Whenever disengaging under combat, the battalion is in the position to disengage from the enemy and withdraw rapidly by using **its cross-country mobility and its armor protection**.

It is therefore suited to assume the role of rearguard for the division in screening withdrawal movements across a broad front.

129. In calling off the battle, the commander determines the sequence of disengagement from the enemy and controls the support by heavy weapons.

130. Rolling terrain, darkness and fog facilitate a late disengagement from the enemy and cover the time and direction of the withdrawal.

In the case of difficult conditions, elements are to conduct attacks with local objectives. Mobility and rapidity are to be the hallmarks of these attacks from unexpected directions.

131. The battalion pulls back **by bounds from sector to sector**. A **passage point** is to be established in each sector. Strong **rearguards**, reinforced by antiarmor forces and heavy weapons, are to be left in contact with the enemy. They are to be employed in such a fashion that they can overwatch the sector as powerful patrol detachments or in a strongpoint fashion.

The **main body of the battalion** holds the passage point.

132. The **withdrawal of the rearguards** only takes place on battalion **order**.

133. Withdrawal is possible both during the day and at night. Only extensive visibility and air superiority on the part of the enemy necessitates a withdrawal at night.

Especially important is an **early extraction** of the elements not needed for fighting and **reconnaissance** and **marking** of the routes for the numerous vehicles.

134. The fighting will be conducted in a mobile fashion. The enemy is to be held up by constant advances into his flanks and rear. The employment of deception makes it difficult to determine friendly strength.

135. Artillery supports [the operation] either from firing positions in the battalion's passage point position or through the mobile employment of self-propelled batter-

ies. Generous commitment of forward observers enables a responsive artillery and deceives the enemy.

136. Active reconnaissance in the flanks and the timely employment of forces—preferably, antiarmor weapons and engineers—are necessary to prevent a leapfrogging pursuit by fast enemy forces.

Aerial reconnaissance supports the fight by monitoring enemy movements.

137. Emplacement of obstacles slows down the enemy pursuit. The engineer platoon is capable of being employed to disrupt railway and communications facilities and the road network, both with and without demolitions.

Smaller-scale disruptions are directed by the Battalion Commander. The division is responsible for directing larger-scale obstacles.

The emplacement [of the obstacles] is to be assured through coordination with an engineer liaison officer or by the attachment of engineers.

138. In the case of river sectors that need to be crossed, **several crossing points** need to remain open depending on the width of the area of operations of the battalion. The blocking or the demolition of those points is only to be done by the rearguards.

Maintaining only one crossing point forces the shifting of the withdrawal movement in the case it is lost by enemy air, partisans or advances.

139. **Contact** must be maintained with the friendly forces on the flanks and with the forces in the newly established main line of resistance of the division.

Radio and messengers must be used exclusively to maintain **signals contact**.

140. Only **mechanically sound vehicles** are to be employed in this type of fighting. Maintenance and recovery assets are to be kept close at hand during the operations in the event of losses.

141. Increased importance must be placed on the evacuation and care of wounded. It is of decisive importance for the morale of the fighting forces.

!

X. RECONNAISSANCE AND COMBAT UNDER SPECIAL CONDITIONS

A) Defense

142. If conditions force the battalion in extraordinary situations to be employed defensively, then the armored reconnaissance companies dismount.

143. For general guidance concerning the defense, see *H.Dv. 130/9*.

144. The **SPW's** and **armored cars** are to be positioned out of sight of observed enemy fire, but are to be kept close at hand. They form a mobile reserve.

In the case of the **cannon platoons**, positions are to be prepared that can be occupied whenever an enemy attack is identified.

145. **Reverse-slope positions** facilitate the **antiarmor defense**. **Dug-out positions for armored vehicles** are to be dug and **tank obstacles** are to be emplaced. **Deliberate minefields** are to be emplaced by engineers and **minefield records** kept.

146. **Antiarmor sections** and **tank hunter/killer teams** from the engineer platoon are to be attached in support.

147. Whenever the enemy **penetrates**, an immediate counterattack is to be launched. Pockets of resistance that remained in place facilitate the immediate counterattack.

148. In order to **defend against enemy night attacks**, the front lines are to be reinforced. **Patrols** and **listening posts** are to be placed far forward, so as to bring in planned fires by the artillery and heavy weapons in a timely and effective fashion. Mines and wire are used to guard against surprise attacks. Tracer ammunition, searchlights and illumination fires facilitate the defense.

b) Fighting for Rivers

149. The battalion is too weak for a **deliberate attack across water obstacles**. It lacks the necessary infantry combat power.

By contrast, operations of the battalion--as an advance guard--against bridges and crossing points, which are marked by **surprise** and **boldness**, promise success, especially if they succeed in reaching the bridge site at the same time as the withdrawing enemy.

150. Only **weakly defended river lines** are to be crossed while using all available field-expedient means. The presence of fords is necessary for the crossing of vehicles to facilitate the establishment of a bridgehead with powerful, mobile forces. In addition, the allocation of engineers is necessary.

151. The reinforcement of the battalion with forces capable of defeating armor is necessary. After the initial support by fire, they are to be brought over into the bridgehead from the near side of the bank.

152. Fords allow an immediate resumption of reconnaissance on the far side of the river.

153. Heavy weapons, as well as armored car sections, screen and support the attack from the near bank and protect the crossing point on the flanks.

154. The employment of the armored car companies promises the greatest success against enemy **low-level aerial attacks**.

155. When **approaching rivers**, the engineer platoon is to be integrated far forward. Engineer scouting sections move with the lead elements. The commander of the heavy company needs to prepare for the crossing in a timely manner.

156. **All of the vehicles not needed for the crossing** are to be kept far to the rear until they are summoned forward. The **sequence** is to be determined by the battalion and a deliberate sequence controlled by a **crossing-point officer**.

c) Reconnaissance at Night and in Fog

157. **Light nights** and **light fog** do not considerably impact reconnaissance.

Dark nights and **heavy fog** restrict reconnaissance. Despite that, it is to be conducted with all means available.

Wheeled armored cars are suitable [for reconnaissance] due to the reduced noise of their movements.

158. **Patrols are to be sent forward** during the night as far as the area presumed to be occupied by the enemy, so as to initiate reconnaissance at **first light**. It is recommended that the armored patrols be reinforced by elements of the reconnaissance companies under those conditions.

d) Reconnaissance and Operations in Built-Up Areas

159. **Armored patrols** bypass built-up areas. If the terrain or the mission requires it, they advanced into built-up areas **screening with vehicular weapons** against riflemen on the roofs or with closed hatches. Moving rapidly, they get to the far side of the built-up area, moving in bounds in the case of larger built-up areas.

160. **In the case of a battalion attack**, built-up areas that cannot be bypassed will be attacked by envelopment, never frontally. After entering the built-up area, elements dismount and conduct the attack as assault detachments, supported by their *SPW*'s and the heavy weapons.

161. The attack is conducted by bounds and advances to the far side of the built-up area, followed by rapid reorganization for the defense or continuation of the attack. The built-up area is to be cleared in a deliberate manner.

162. **When defense of a built-up area is required**, farms and houses will be used as strongpoints for an all-round defense. Houses that interfere with fields of observation and fire will be eliminated.

The fighting will be continued dismounted (see also paragraph 143 forward).

e) Reconnaissance and Operations Against Partisans

163. **Reconnaissance of the partisan territory** by the battalion promises little success, since the partisans, usually armed only with infantry weapons, will pull back in the face of armored vehicles.

Corresponding, the **employment of armored reconnaissance sections** will disrupt the intentions of the partisans and keep them away from built-up areas.

164. In the case of a **surprise employment [against partisans]**, the battalion is suited for supporting infantry by **suppressing** pockets of partisans or in **sealing off** partisan areas (in the case of larger-scale operations) along roads and trails.

Do not conduct operations in a templated manner, since the partisans will accustom themselves to them when repeated.

f) Reconnaissance and Operations Against Air-Landed and Airborne Forces

165. As an initial countermeasure, the battalion is a suitable formation against **large-scale landings by the enemy from the air**.

166. Decisive success is possible by means of immediate **reconnaissance of the drop and landing zones and an advance into them** so as to scatter the landing parties by rapid attacks.

167. Superior enemy forces, which are ahead of friendly forces in terms of combat preparations, will be sealed off and monitored in their movements.

168. If the enemy drops or lands forces in the sector of the battalion, then the greatest success is achieved by engaging the enemy while he is still in the air or landing.

g) Reconnaissance and Operations in Wooded Terrain

169. **Extensive woods and marshland** make reconnaissance and operations more difficult and do not allow complete utilization of fire and movement.

170. Armored reconnaissance sections are to be reinforced by elements of the reconnaissance companies or engineers, so that they can sufficiently safeguard themselves in every situation and overcome obstacles along the trails.

171. Avenues of advance are to be scouted; trail improvements conducted. Extensive observation and the posting of security elements to provide mutual fire coverage help reduce the danger of ambushes.

172. To fight in wooded terrain, elements of the armored reconnaissance companies dismount. Obstacles and enemy outposts along the roads are to be eliminated from the rear by assault detachments.

The battalion is lacking in infantry combat power to clear larger stretches of woods.

h) Reconnaissance and Operations in Mountainous Terrain

173. The battalion is unable to fully utilize its reconnaissance abilities and combat power in mountainous terrain. The roads, easy to block and often poorly constructed, and the frequently changing weather conditions limit employment opportunities.

174. Large-scale envelopments can lead to the surprise of the enemy.

Local inhabitants are to be used as guides and persons knowledgeable of the weather.

i) Reconnaissance and Operations in the Steppes and the Desert

175. Reconnaissance and operations are enhanced by **open and expansive** terrain.

Speed of the vehicles, weapons with long ranges and the possession of even the smallest of rises are of importance.

176. **The good visibility** enjoyed in the **morning and evening hours** is to be exploited for reconnaissance.

177. **Day marches** are widely dispersed (online). Reconnaissance sections to the front and flanks accompany the battalion within eyesight distance.

Whenever it is **dark**, the battalion marches in several columns close to one another.

178. Difficulties in orientation often require **marching by compass and tachometer**. The march route is to be entered on the map; the exact point of departure forms the basis [for the continued march].

Calling in the reconnaissance elements at night is made easier though the use of light signals.

179. Sandstorms are to be exploited to gain the element of surprise. Cohesiveness and orientation are paramount.

On the other hand, [sandstorms] offer the enemy good opportunities for ambush. Because of the reduced visibility, security elements are to be correspondingly concentrated more closely together.

k) Reconnaissance and Operations in the Winter

180. **Preparatory measures** include:

- (1.) Winter equipment for men, equipment and vehicles,
- (2.) White camouflage
- (3.) Thorough briefing,
- (4.) Partial conversation from motorized vehicles to horse-drawn conveyances.

In addition, your attention is drawn to *Merkblatt 18a/17* “Handbook for Winter Warfare.”

181. Heavy frost facilitates the trafficability of rivers, lakes and marshland for reconnaissance patrol operations; high snow restricts it. *Ad hoc* ski patrols often have to be employed in lieu of armored reconnaissance sections.

182. **Winter trails** are to be used; they run across places with little snow cover, usually along hill lines marked on maps.

Marshland will only support [vehicles] when there is a heavy fronts; they cannot be differentiated from the surrounding terrain. Comprehensive scouting during operations in marshy terrain prevents individual vehicles from sinking in.

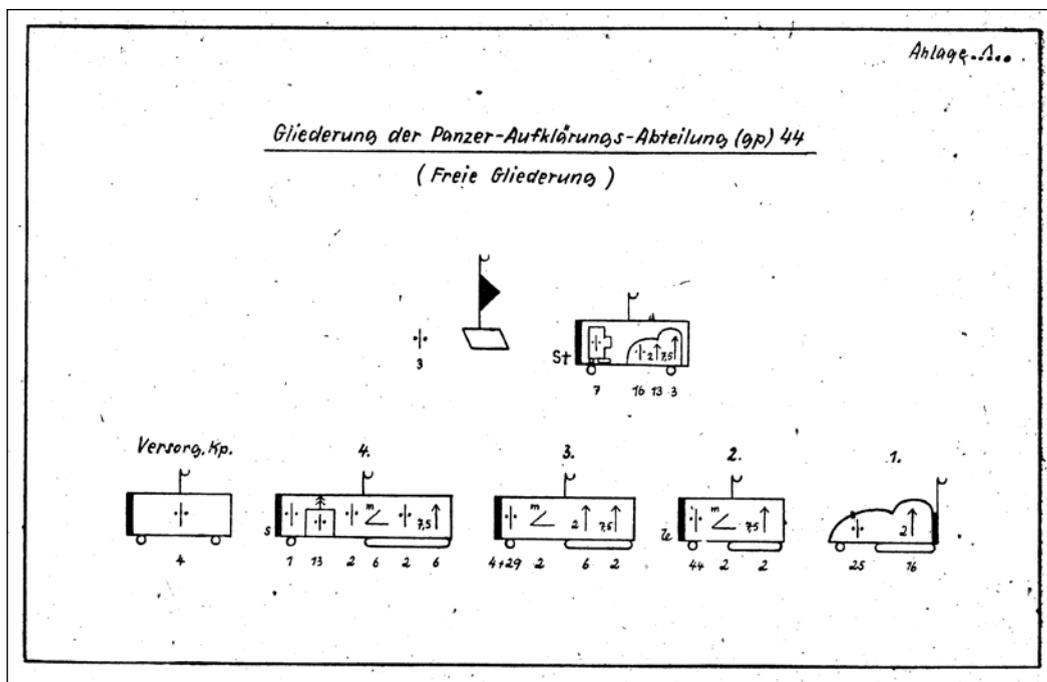
183. **Warning orders** considerably expedite the preparedness of the vehicle.²

!

² Editor’s Note: The remainder of the booklet has not been translated, since it concerns “housekeeping” and items of special interest that have only limited applicability to modern readers, since their discussion relates to “hands-on” activities in the field that would not be recounted in detail in any accounts. The non-translated portions include section 11 (Bivouacking), 12 (Coordination with the *Luftwaffe*), 13 (Air-defense Measures), 14 (Chemical Defense), 15 (Supply). In addition, appendices 3 (Explanation of the Thrust Line) and 4 (Communications networks of the Army and *Luftwaffe*), 5 (Logistics Flow), 6 (Recognition and Communications Signals for the *Luftwaffe* and Army) and 7 (Bibliography) have not been translated.

APPENDIX 1: ORGANIZATION OF THE PANZER-AUFKLÄRUNGS-ABTEILUNG (GP)

44



APPENDIX 2: MOUNTED AND DISMOUNTED STRENGTHS OF THE PANZER-AUFKLÄRUNGS-ABTEILUNG (GP)

Mounted	Element	Dismounted
20	Officers	15
162	Noncommissioned officers	81
531	Enlisted Personnel	296
—	—	—
253	Rifles	199
196	Submachine guns	52
143	Machine guns	42
3	Heavy machine guns	3
10	Medium mortars	10
34	2-centimeter automatic cannon	—
13	7.5-centimeter main gun	—

The combat strength of the battalion does not include the supply company and the supply elements of the companies (First Sergeant, Armorer and Equipment NCO with driver).

The dismounted combat strength excludes all of the weapons associated with the vehicles and all of the [separate] elements of the units of the battalion (cannon sections, armor car company, elements of the headquarters company).

