

TRUPPENFÜHRUNG

[Troop loading]

(German Field Service Regulations)

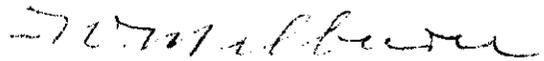
FOREWORD

Herewith is a translation of Part I of the recent German text -  
"TRUPPENFÜHRUNG" (Troop Leading).

"TRUPPENFÜHRUNG", the most important manual of the German Army, is the German Field Service Regulations. The present edition was published on October 17, 1933. This document was "secret" until November 1, 1935, when Part I was released. Part II, containing the detailed tables of organization and road spaces, is still a "secret" document.

Part I is now offered in the belief that it will be found instructive and of timely interest.

By Direction of the Assistant Commandant:



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# Truppenführung

## Part I

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# Truppenführung

## Introduction

1. The conduct of war is an art, depending upon free, creative activity, scientifically grounded. It makes the highest demands on the personality.

2. The conduct of war is based on continuous development. New means of warfare call forth ever changing employment. Their use must be anticipated, their influence must be correctly estimated and quickly utilized.

3. Situations in war are of unlimited variety. They change often and suddenly and only rarely are from the first discernible. Incalculable elements are often of great influence. The independent will of the enemy is pitted against ours. Friction and mistakes are of every day occurrence.

4. The teaching of the conduct of war cannot be concentrated exhaustively in regulations. The principles so enunciated must be employed dependent upon the situation.

Simplicity of conduct, logically carried through, will most surely attain the objective.

5. War is the severest test of spiritual and bodily strength. In war, character outweighs intellect. Many stand forth on the field of battle who in peace would remain unnoticed.

6. Armies as well as lesser units demand leaders of good judgment, clear thinking and far seeing, leaders with independence and decisive resolution, leaders with perseverance and energy, leaders not emotionally moved by the varying fortunes of war, leaders with a high sense of responsibility.

7. The officer is a leader and a teacher. Besides his knowledge of men and his sense of justice he must be distinguished by his superior knowledge and experience, his earnestness, his self-control and high courage.

8. The example and personal conduct of officers and non-commissioned officers are of decisive influence on the troops. The officer who in the face of the enemy is cold-blooded, decisive and courageous inspires his troops onward. The officer must likewise find the way to the hearts of his subordinates and gain their trust through an understanding of their feelings and thoughts and through never ceasing care of their needs.

Mutual trust is the surest basis of discipline in necessity and danger.

9. In all situations every leader must exert, without evasion of responsibility, his whole personality. Willing and joyful acceptance of responsibility is the distinguishing characteristic of leadership. This does not mean that the subordinate should seek an arbitrary decision without proper consideration of the whole or that he should not obey orders precisely or that he should let his feeling of greater knowledge take precedence over obedience. Independence of action should never be based upon contrariness. Independence of action, properly used, is often the basis of great success.

10. In spite of technique, the worth of man is the decisive factor. Its significance is increased in group combat.

The emptiness of the battle field demands independently thinking and acting fighters, who, considering each situation, are dominated by the conviction, boldly and decisively to act, and determined to arrive at success.

Being accustomed to physical accomplishments, lack of consideration of self, will power, self confidence, and courage qualify a man to master the most difficult situations.

11. The worth of leaders and men determined the battle worth of the troops, which is supplemented by the possession, care and maintenance of arms and equipment.

Superior battle worth can equalize numerical inferiority. The higher the battle worth, the more vigorous and versatile can war be executed.

Superior leadership and superior troop battle readiness are reliable portents of victory.

12. The leaders must live with their troops, participate in their dangers, their wants, their joys, their sorrows. Only in this way can they estimate the battle worth and the requirements of the troops.

Men is not responsible for himself alone, but also for his comrades. He who can do more, who has greater capacity of accomplishment must instruct the inexperienced and weaker.

From such conduct the feeling of real comradeship develops, which is just as important between the leaders and the men as between the men themselves.

13. Troops only superficially, and not through long training and experience, welded together, more easily fail under severe conditions and under unexpected crises. Therefore before the outbreak of war the development and maintenance of steadiness and discipline in the troops, as well as their training, is of decisive importance.

Every commander is enjoined immediately to intervene with all powers at his disposal against any relaxation of discipline, against excesses, plundering, panic and other damaging influence.

Discipline is fundamental in an army, its strict maintenance a benefit to all.

14. The strength of the troops must be able to meet the highest demands in decisive moments. He who unnecessarily fatigues the troops jeopardizes success.

The strength employed in battle must stand in proportion to the objective desired. Unrealizable demands prejudice the trust in the leaders and shake the spirit of the troops.

15. From the youngest soldier on up the employment of every spiritual and bodily power is demanded to the utmost. Only in such conduct is the full power of accomplishment of the troops achieved. So do men develop and maintain their courage and powers of decision in hours of stress and carry forward with them to greater deeds their weaker comrades.

The first demand in war is decisive action. Everyone, the highest commander and the most junior soldier, must be aware that omissions and neglects incriminate him more severely than the mistake of choice of means.

Report No. 14,507.

## I. War Organization -- Troop Distribution.

16. The organization of war establishes the regular command and administrative relations of the army in the field. It is ordered by the High Command (War Department) and by it only can be changed.

17. The Field Army consists of armies, units of army cavalry, air units and army troops.

18. An Army consists of Infantry divisions (all regulations enunciated for Infantry divisions apply for the other arms, in so far as they are conducted as Infantry, and other regulations therefor are not expressly published), which as a rule are grouped under corps commanders as Army Corps. Corps have corps troops, armies, army troops.

Several armies may be formed into an Army Group.

19. The units of Field Army Cavalry are generally Cavalry divisions.

Several Cavalry divisions may be grouped under a Corps commander as a Cavalry Corps, to which are added corps troops.

The attachment of Field Army Cavalry units in general is limited to Army Groups and armies.

20. Units of the air arm are the air units (reconnaissance echelons, attack (pursuit) squadrons and bombing squadrons) and the air defense troops.

Units of the air arm can be attached to army groups, armies, army or Cavalry corps, and exceptionally to Infantry and Cavalry divisions.

21. The following belong to the Field Army troops: staff for special employment, bicycle-, motorcycle-, machine gun-, minenwerfer-, and tank defense units, motorized reconnaissance battalions, artillery, including observation battalions and balloon platoons, tank units, chemical troops, engineer and signal units, special troops and units of the services of supply.

22. The Infantry and Cavalry divisions are the smallest units which organically are capable of independent operations. They have at their disposal the means for independent combat missions and sustenance.

23. Army and Corps troops are organized similarly to Field Army troops. The supply services of Corps troops are only so large as actually necessary to supply the Corps troops.

24. The troops are distributed in accordance with the needs for strategical and tactical employment (advance guard, rear guard, flank guard, march columns, battle groups). The units as organized are maintained in their integrity as far as possible.

25. Leaders are senior and subordinate. The higher leadership embraces commanders of all units down to include Infantry and Cavalry divisions, the lower all smaller commands.

26. (Truppenführer) The troop commander is one permanently or temporarily independently in command of a unit of all arms (combined arms).

Report No. 14,507.

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## II. Leadership.

27. Great successes presume boldness and daring preceded by good judgment.

28. We never have at our disposal all the desired forces for the decisive action. He who will be secure everywhere or who fixes forces in secondary tasks acts contrary to the fundamental.

The weaker force, through speed, mobility, great march accomplishments, utilization of darkness and the terrain to the fullest, surprise and deception, can be the stronger at the decisive area.

29. Time and space must be correctly estimated, favorable situations quickly recognized and decisively exploited. Every advantage over the enemy increases our own freedom of action.

30. Rapidity of action in the displacement of troops can be assisted greatly or retarded by the roads and street nets and by the terrain conditions. The season, the weather, the condition of the troops, are also of influence.

31. The duration of strategical and tactical operations cannot always be foreseen. Successful engagements often proceed slowly. Often the success of today's battle is first recognized tomorrow.

32. Surprise of the enemy is a decisive factor in a success. Actions based on surprise are only of great success when we do not permit the enemy to take adequate counter measures.

The enemy will likewise endeavor to make use of surprise. Our conduct must take this into consideration.

33. The knowledge of the hostile leadership and war principles can influence the decision and aid our battle conduct, but it must never lead to preconceptions.

34. Those conditions which facilitate the conduct of war in our land, make it more difficult in foreign lands, require consideration.

35. In strenuous combat, troops are soon worn out and quickly used up. The forces must receive timely reinforcements in leaders, men, animals, battle needs and war materials of all kinds.

36. The mission and the situation form the basis of the action.

The mission designates the objective to be attained. The leader must never forget his mission. A mission which indicates several tasks easily diverts from the main objective.

Obscurity of the situation is the rule. Seldom will one have exact information of the enemy. Clarification of the hostile situation is a self-evident demand. However, to wait in tense situations for information, is seldom a token of strong leadership, often of weakness.

37. The decision arises from the mission and the situation. Should the mission no longer suffice as the fundamental of conduct or is it changed by events, the decision must take these considerations into account. He who changes his mission or does not execute the one given must report his actions at once and assumes all responsibility for the consequences. He must always keep in mind the whole situation.

The decision must depict a clear objective aimed at with the whole force. The strong will of the commander must support it. Often the stronger will gains the success.

Without very good reasons a decision once made should not be abandoned. However, in the vicissitudes of war an inflexible maintenance of the original decision may lead to great mistakes. Timely recognition of the conditions and the time which call for a new decision is an attribute of the art of leadership.

The commander must permit freedom of action to his subordinates insofar that this does not endanger the whole scheme. He must not surrender to them those decisions for which he alone is responsible.

33. The combat (das Gefecht) - by large army units the battle (die Schlacht) - is the armed conflict which ensues when two opponents come together.

39. The attack is launched in order to defeat the enemy. The attacker has the initiative. Superiority of leadership and of troops show to the best advantage in the attack. Success does not always come to superiority of numbers.

In special instances the objective of an attack may be limited.

The possibility that an attack may miscarry should never permit the fettering of energetic leadership from the first.

40. Pursuit reaps the fruits of victory. It strives to destroy the enemy, which destruction was not possible in the preceding engagement. Only a thorough-going relentless pursuit, which prevents the enemy from gaining time to rest and recuperate, saves ourselves sacrifices necessitated if we permit the enemy to force another decisive engagement.

41. The defense waits for the opponent. The defender seeks to prescribe the battle terrain.

The defense is chosen when our own inferiority permits no other choice, or if for other reasons it appears advantageous.

The defense has the mission of shattering the enemy attack. For this purpose, the attack is received in a given terrain, which is held to the last.

The commander (leadership) may limit the time of the defense.

A decisive victory can be achieved only by an offensive return.

The delaying action has the mission of inflicting high losses on the enemy without permitting a decisive action to result. For this purpose we must withdraw in time from the hostile attack and give terrain for time.

42. Breaking off an engagement has the purpose of terminating the battle or giving up the former position in order to continue the engagement at a more favorable position. In the latter instance delaying action is often employed.

43. The retreat intends to avoid further combat. The engagement must for this purpose be terminated and the withdrawal of the troops be protected.

44. The changing fortunes of battle demand often the passing from one type of engagement to another.

The passage from attack to defense is accomplished by holding the terrain which has been taken, or, if necessary, under hostile pressure. The troops are reformed, dispensable forces withdrawn from the line.

In the passage from the defense to the attack the timely concentration of strong forces at decisive areas is of decisive importance.

45. Delaying action avoids a decision. It will gain time, keep the enemy busy and deceived.

Faint attacks provide deception.

46. The width of battle zones and sectors is dependent upon the intentions, the existing adjacent support and the terrain. It is influenced by the conduct and breadth of the enemy as well as by one or both open flanks. The breadth of zones and sectors is different. Greater breadths are permissible in favorable terrain, especially if it is artificially reinforced. Greater breadths can be used if we employ battle groups. Great breadths can bring to early fruition the entire effect of the arms, but they can prematurely bring our troops to a standstill. Too great breadth creates the danger of a penetration, too narrow, especially without deep organization, the danger of envelopment or an evasion of the position by the enemy. In an attack an initial breadth greater than that of the enemy may be the forerunner of greater success.

In unclarified situations, organization in depth preserves freedom of action for the commander. Against a more rapidly moving enemy or one with greater mobility is such organization always proper initially. At the decisive area there is normally the demand for organization in depth.

The commander must distribute his forces in depth and breadth before contact and during the battle, according to the situation.

47. During the course of the battle the commander influences the action most strongly by the concentration and increase of fire and through the employment of his reserves.

Ammunition supplies held mobile, enable him to increase the fire effectiveness at the decisive area at the decisive time and to influence the engagement, even after his reserves have been committed.

Distribution, location and employment of the reserves require careful consideration. Mobility increases the possibilities for their employment.

To make the forces employed in the front line too weak in order to favor a larger reserve, often means the loss of the success and may lead to defeat in detail. There are instances in which it is better to hold no reserves.

Units of combined arms are particularly suitable as reserves since these are capable of independent action. The disruption of such units as well as the frittering away of reserves is to be avoided.

The location of the reserve depends upon its probable employment and the terrain. Its timely employment must be assured. Generally it is to be echeloned behind the flank. Distance and interval from the flank increases with the size of the reserve.

A reserve held well back is protected and its employment in different directions is facilitated. A reserve further forward accelerates its intervention in the battle. The surer the commander is of the employment of the reserve and the more imminent this employment is, the nearer the front will it be brought. A strategical reserve must be held well in rear, so long as its employment is not intended.

With the employment of his reserve, the commander releases from his hands the last shock element at his disposal. He must not let himself employ his reserve too early. Nevertheless he must not delay, if the employment of the reserve can bring about the decision or if the situation makes its intervention necessary.

When the reserve is employed, the early formation of another is of great importance.

Communications, Information, Reports.  
Situation Maps.

48. The reports and information of the enemy form one of the most important foundations for the estimate of the situation, the decision and its execution.

The first deductions concerning the enemy are usually derived from the general knowledge of his methods or are procured from special sources of information. Air and ground reconnaissance, the searching for and continual observation of the enemy, and information secured through special means provide a more definite picture of the hostile force. Along with accurate information and reports we must reckon on incomplete and inaccurate information. From the whole the commander is able to draw correct conclusions. Apparently unimportant details may, in connection with other reports, have considerable worth.

Every report and the best information are of little or no value when they reach too late the command for which they are intended.

49. Within his area of operations, every commander is responsible for the continual reconnaissance of the hostile situation and for terrain knowledge both day and night. Contact once gained with the enemy must be maintained.

All commanders are enjoined, as early and to the greatest extent possible, to inform the higher commander of the situation and to transmit all important information.

50. In higher commands, if necessary also by lower commands, an officer is charged with the evaluation of reconnaissance results and special reports.

Information and reports must be discriminately evaluated. Any attempt to deduce what is desired by us or is most favorable to us, must be avoided.

51. The one making a report must express himself clearly and positively. He must differentiate between what he has seen, what another has noted or stated, and what is presumed. The source of the information must be stated. Suspicions must have bases.

52. Exact statements as to numbers, time and place have great meaning.

It is often of great value to learn where the enemy has not been met with. The confirmation of previous information and the proof of unchanged conditions in a specified time are also of great value.

Important information as to terrain is to be added to the reports concerning the enemy.

53. The contents and reliability of reports, not their numbers, are the important matter. Reports must calmly depict the events. Exaggerated reports are detrimental, sometimes disastrous. Colored reports undermine trust and make the commander uncertain.

First contact with the enemy is always to be reported, unless otherwise ordered. In other circumstances each observed hostile act must be weighed as to whether it should be reported at once or not at all. Useless reports weaken the effectiveness of the reporting agency, load the communications system and make more difficult the commander's conduct.

Important information of the enemy may demand verification.

54. Battle itself provides the most reliable means of estimating the enemy.

Reports during battle are indispensable for the conduct of the engagement.

During the combat, reports must be continually made about the enemy and our own situation, the terrain and the ammunition supply. Communicating impressions, suggestions for exploiting favorable opportunities and the terrain facilitate the formulating of decisions. Pauses in the battle are to be utilized to add to the information reported. At the approach of darkness, hasty battle reports are of particular value to the higher command.

At the close of a battle the following messages should be sent without delay: which hostile troops are opposite, how the enemy conducts himself, in what condition he is, our own situation, our munitions, etc.

55. In pressing situations, reports must be made not only to the next senior commander but to the senior commander (Truppenfuhrer). Troops threatened by the enemy, report this immediately without regard to other necessary messages. A message sent simultaneously to several commanders contains this information of the enemy.

56. Neighboring detachments must communicate important observations concerning the enemy and changes in their own situation.

57. The more detailed report frequently rounds out the picture painted by the messages. The short messages sent immediately after the battle do not eliminate the necessity for battle reports. These are to be made as soon as possible after the battle. Therefore during the battle it is necessary to write down temporarily and to arrange what is later to be reported.

Orders and messages which have been issued during, and have influenced the engagement, will be included in the report or added as inclosures.

58. In every higher headquarters, situation maps are to be kept and the situation thereon posted. According to the needs they must depict the hostile situation, our own situation and information of neighboring units. These facilitate the task of the commander and make easier his decision. Lower commanders may act correspondingly.

## Estimate of Situation. Decision.

59. An estimate of the situation precedes each decision. It demands rapid thought, simple, logical consideration of the essential details, only.

60. Our mission is the basis. We proceed from it and determine what it prescribes and how we can best accomplish it.

Knowledge and correct estimation of the terrain influence to a great extent the tactical considerations and the measures which are to be employed.

61. A consideration of our own situation determines where the units of the attached forces are, which immediately, **or** later are available for the execution of the mission, if additional forces are to be expected, and whether we shall be supported by adjacent units or whether these units are in need of our support.

The previous activities and the condition of the troops as well as the ammunition situation must be considered.

62. The hostile situation must be estimated similarly. Based on the information at hand, we must consider to what extent the enemy can hinder our intentions and also how we would act, were we the hostile force. Such considerations must not lead to biased preconceptions. We must consider the enemy's conduct to be that most disadvantageous to us unless we have at hand sufficient information to the contrary, which information indicates a most probable enemy activity.

Ordinarily we must consider in detail which area or which line the enemy can have reached, what evidences of his strength and organization we have, and whether he can continue his movement.

In larger commands we must consider the hostile street and rail nets, the activity of his air force, his A.A. artillery and his communications troops.

The character of the hostile leader and the hostile troops may be used in estimating the conduct of the enemy, especially if we have had previous battle experience with these.

63. A determined decision must be the logical result of careful consideration of all factors.

The decisions made will not always correspond to the actual conditions presented. When the situation develops other than the decision contemplated, he has the greatest prospect of success who quickly and skillfully exploits further reconnaissance but does not change the decision except with compelling reasons.

## Orders.

64. The order puts the decision into effect.

65. Clear orders are an essential for the frictionless cooperation of all commanders.

66. For the higher commander, the written order provides the foundation for the leadership. It is communicated to the lower units, printed, as a carbon copy, typewritten or written by hand or by technical communications means. Frequently it is dictated over the telephone. In every instance the most sure and suitable method of transmission is to be chosen.

Should the order be simple or short, it may be orally communicated. It must later, however, be committed to paper.

67. Ordinarily, lower commanders use the oral order. Their orders are written if the oral or the telephonic order is not possible or if the oral order is insufficient or there exists the danger of its interception.

68. The more pressing the situation, the shorter the order. Where circumstances permit, oral orders are given in accordance with the terrain, not the map. In the front lines and with the lower commanders is this particularly so.

69. Orders transmitted through technical communication means require a verification and authentication. It is recommended that the order so given be repeated to the sender.

With important orders it is often advisable to use two or more means of transmission.

70. It is easy to underestimate the time required to get an order through.

In individual instances it may be necessary for the commander to convince himself of the distribution and execution of his order.

71. Too many orders, especially in battle, during which the communication means may miscarry, produces the danger of causing injury to independence of action of lower commanders.

72. According to special regulations (XVII) (secret) orders communicated by radio, with the exception of those calling for the immediate cooperation of the arms, are to be encoded; also those sent by telephone if there is danger of hostile interception.

In exceptional circumstances written orders are partly or entirely encoded.

73. An order shall contain all that is necessary for the lower commander to know in order for him to execute independently his task. It should contain no more. Correspondingly the order must be brief and clear, decisive in tone and complete, adapted to the understanding of the receiver and, according to conditions, to his peculiarity. The commander must never fail to place himself in the position of the receiver.

74. The language of orders must be simple and understandable. Clarity, which eliminates all doubts, is more important than correct technique. Clarity must not be sacrificed for brevity.

Negative expressions and changes lead to half measures and are objectionable. Exaggerations are equally bad.

75. Orders may bind only in so far as they correspond to the situation and its conditions. Still it is often necessary to issue orders in uncertain situations.

76. If changes in the situation are to be expected before the order is put into execution, the order should not go into details. In great strategical operations, especially when orders must be issued for several days in advance, this absence from details is to be specially observed. The general intention is expressed, the end to be achieved is especially stressed. In the execution of the impending action, the main instructions are given, the immediate conduct of the engagement is left to subordinate commanders. In such a way is the order fully executed.

77. For the maintenance of secrecy, to what extent and to whom the intentions may be made known demands careful consideration.

In special operations commanders are occasionally instructed by means of specially written instructions or by officers especially sent to the various commanders.

For battle on a large scale, however, there may be no withholding of thorough information and adequate assignment of missions, in order to secure the cooperation of all for the attainment of the common zeal. As the troops enter battle there must be no doubt in any commander's mind as to the intention of the high command.

In so far as the conditions permit, it is often best for the commander to clarify his intentions to his subordinates by word of mouth and discussion. Yet he must not make himself dependent on his subordinates. The decision and orders therefore are solely his.

78. It is recommended that the written order which directs the activities of different elements to a common goal be paragraphed and the paragraphs numbered.

That which is important should be placed first; matter pertaining to each element or unit should be placed in a separate paragraph, under a separate number.

79. Operations orders govern the activity of the troops and include for combat and service trains those instructions which the troops must know. The orders are designated according to the issuing command (army, corps, division, regiment order etc.) or, if suitable, according to the troop distribution (advance guard, outpost order) or according to the separate arms (artillery order).

80. The following sequence is recommended for operations orders:

Information of the enemy and neighboring units in so far as this is of importance to the receiver.

The intention of the commander, in so far as its communication is essential to the accomplishment of the end sought.

Missions for the elements of the whole command.

Orders for the light motorized columns, the field trains and baggage trains, the battle echelon and the remaining rearward elements, in so far as this is of importance for the troops.

Command post and communications to and from.

Each situation dictates what should be included in the order.

The information of the enemy should also include the commander's estimation of the hostile intention.

Suppositions and expectations are to be so indicated. Reasons for the measures ordered belong only exceptionally in the order. Detailed instructions covering all possible contingencies, which are matters of training, do not belong in an order.

81. It is often suitable to issue warning orders. The warning order informs of the latest developments of the situation; it is used to effect the most urgent preparations; likewise it is used to permit the troops to come to rest earlier and also to permit them to rest longer.

Warning orders (Vorbefehle) are especially worthwhile when they can be transmitted orally, by telephone or radio.

82. Often the urgency of the situation demands, frequently is it simpler to issue, individual orders. These are extracts of the whole order and must contain everything that the receiving commander must know in order to execute properly his mission.

Through the individual orders all the troops are not given the general picture. In larger operations, the whole order (operations order) must generally follow; in other instances it is recommended that the individual commanders be instructed concerning the most important factors of the whole situation.\*

83. In the "troop distribution" which generally is given separate from the wording of the order, the troops are specified according to arm in the following sequence:

Infantry, cavalry, horse and motor reconnaissance battalions, artillery, tanks, chemical troop, engineers, signal, motor, horse-drawn vehicles, medical and veterinary troops, other troops (air force and anti-aircraft).

If the march sequence is already written in the order, the troops are so designated in the "troop distribution"; the corresponding troop organization (main body, advance guard, rear guard) contains the addition "according to march sequence". Likewise in a retirement the troops are specified in march sequence.

84. At the end of the order there is noted how and by whom it is issued and how it will be distributed.

The time the order is completed or the hour of transmission is to be indicated.

The calling together of the higher commanders or their chief assistants for the issuance of orders is only permissible when the situation of the unit in question so admits.

85. Seldom is the order of the higher commander transmitted, with all annexes, beyond the next lower commanders. These commanders themselves issue orders based on the order of the higher command, incorporate the necessary information and instructions.

Generally the division order forms the basis for the order to the troops.

86. It may be suitable to communicate secretly to the next lower commanders only, orders for a retreat or retirement.

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\* See Appendix 1.

87. Battle orders must not be stereotyped. Under certain conditions a "troop distribution" may be proper; however, the commander upon entry into battle, should command if possible these units normally under his command according to the "tables of organization".

Whether the battle order be written or oral, whether it be in the form of individual orders or as a field order, the conditions must determine. The order must guarantee the desired cooperation of all elements.

88. Special orders (annexes) complete the operations order with regard to those details which are not of importance to the whole command. They deal, as far as necessary, with the conduct and activity of individual arms, the replacement of munitions, motor vehicle care and supply, medical and veterinary service, the food supply, the supply of arms, material and equipment, and sometimes with the conduct of the field and baggage trains. Considerations of speed and brevity in the order distribution may make it advisable to include such matters in the operations order.

Otherwise, all necessary orders issued by the commander on the supply services are issued as special orders.

All special orders go only to the command concerned. If these commands do not receive the operations order, the special order must contain the necessary information therefrom.

89. Daily orders (corps, division, etc., daily orders) relate to the interior economy of the command, memorials, personal matters, recognitions, etc.

Staff orders regulate the interior economy of the staff.

Transmission of orders and reports.  
Connection between the Commander and the Troops.

90. Orders and reports, according to distance and conditions, are transmitted by means of technical means, individuals, dispatch riders, pigeons or messenger dogs.

Technical signal means should be employed when more rapid transmission is assured, and if secrecy is not jeopardized. Yet, the transmission may require the employment of other means. Long orders and reports transmitted by telephone are more rapidly and securely accomplished when the transmission is from one officer to another.

91. Higher commanders, occasionally lower commanders, can send forward, in the direction of the greatest communication traffic, advanced message centers. These save troops and facilitate the transmission of orders and reports. The advanced message center must be easily found, secured, if possible against hostile action, and connected positively with the commander. Its position must be known to the troops.

In larger commands "report assembly places" may be established, which, when properly placed, save both men and time. These must be equipped with the necessary communications means and must be strong enough to repel small enemy groups. Each "assembly place" is under the command of an especially selected officer, who sifts the incoming messages, and, according to their importance, as to time and kind, decides as to their forwarding. It may be suitable to incorporate the contents of several incoming reports into one outgoing.

92. Communication between aviators and ground troops is accomplished by light and signal means, dropped messages, pick-up stations, and by radio.

93. On the staff of higher commanders are personnel required for the transmission of orders. In addition it may be suitable to attach, permanently or temporarily, to the higher commands or to staffs of mixed units (division, etc.) individuals from lower commands as "order receivers".

The command or staff to which these "receivers" are attached provides for their rationing and quartering.

94. Consideration as to the front line strength demands moderation in the number of these "receivers". Upon the completion of their duties these attached individuals are sent back to their commands.

95. Where good and adequately secure roads and streets are available, automobiles, motorcycles and bicycles are employed.

On open roads, on terrain without roads, and above all on the battlefield, horsemen and runners are to be used.

With larger commands and over greater distances, airplanes can be effectively used.

96. It is only during the advance into battle that lower commanders may be assembled by the higher commander or to receive orders, thereby facilitating the order transmission. During battle such procedure is forbidden.

97. When an order or report is transmitted orally, the one bearing the order or report must repeat it to the issuing person. A person transmitting a written report should be instructed as to its contents, insofar as conditions permit. Officers transmitting orders should, as a rule, be instructed as to the tactical situation.

98. If possible, important orders and reports should be sent by officers.

When the order or report is especially important or there is a question of assured arrival, transmission by various routes is advisable. Under such conditions, or if the route is very long, it may be advisable to send officers protected by escort, mounted troops or armored vehicles.

99. The commander must consider where his communication can reach the receiver, and he must instruct the bearer as to whom the message is to be delivered and the route he should follow. If necessary, a sketch of the route should be given. Attention should be called to especially dangerous areas. Sometimes it is necessary to specify when the message must reach the receiver, at the latest. The bearer must be instructed as to what he shall do upon delivering of the communication.

100. Upon meeting seniors, mounted messengers keep their gait; to higher officers they report the destination of their message. As they ride by a march column they likewise report to the commander as well as to the advance (rear) guard commander; as they pass security forces they report to the nearest commander. In serious or threatening situations they call out the contents of the message to the commanders and the troops. They must be instructed to ask for the location of the commander to whom the order or message is directed. Bicyclists conduct themselves similarly to mounted messengers. From motorcycle messengers the contents of messages cannot often be demanded.

Higher commanders and commanders of reconnaissance battalions are authorized to read messages passing them, but they must not unduly delay its transmission. They must note on the message that they have learned of its contents.

All commanders are enjoined to point out the way to messengers, all troops to make way for messengers. Every element must assist in getting the message through, if necessary by providing transportation facilities.

101. As a rule one or more crosses placed on the message or its container indicates the speed to be maintained by mounted messengers:

x = one kilometer in 7 to 8 minutes.  
xx = one kilometer in 5 to 6 minutes.

102. If necessary, the speed of bicycle and motorcycle messengers is indicated in kilometers per hour.

103. When the transmission of messages and orders must be made over long distance and transmission by signal means cannot be assured, it may become necessary to establish dispatch rider posts.

"Dispatch riders" may be runners, mounted messengers, bicyclists or motorcyclists. This work is tiring. Runners and mounted messengers are to be used only if bicyclists and motorcyclists are not available or if the terrain does not permit their use.

104. The distance between "dispatch rider" posts depends upon the length of the distance to be traversed, the purpose of the "dispatch line", and the condition of the roads and the terrain. The strength of the posts is determined by their duration, the amount of communication traffic, and the necessary local security.

105. Carrier pigeons and messenger dogs are used for connection with the most advanced units, when other means fail.

106. The higher command is responsible for communication to the lower, for the construction and maintenance thereof.

Communication between neighboring elements is to be inaugurated and maintained from the left, unless otherwise ordered. However, this does not release the element of the right from the duty of establishing communication to the left, if this communication is lacking.

107. In larger commands the higher commander may dispatch liaison officers to attached commands and to neighboring units. These officers inform the units to which sent of the intentions of their commander and acquaint them with the situation. In addition to clear perception and independent judgment these officers require great military tact. Without friction, they seek to ascertain the intentions and orders of the commanders to whom they are sent, and, before sending their reports, to convince themselves whether their understanding of the situation agrees with that of the commanders to whom they are sent and to call attention to the commanders any differences in interpretation; thereupon they report their impressions. When personal reports are necessary or when their task is completed, they return to their headquarters. The presence of a liaison officer does not relieve the commander, at whose headquarters the liaison officer remains, of informing his superior of the situation through continuous reports.

108. The communication between the arms is treated in Section VI (attack).

#### The Place of the Commander and his Staff.

109. The personal effect of the commander on the troops is of great importance. He must be near the fighting troops.

110. The choice of location for the corps commander should be based upon the requirement of the establishment of rapid and continuous communication to the divisions and the rear. He cannot rely along on technical communications.

Great distance, in spite of adequate communication facilities, lengthens the command and report line, endangers the system and may lead to late reports and orders or even to failure of arrival. Moreover great distance makes difficult personal terrain study and a personal knowledge of the progress of the battle.

On the other hand, because of the great amount of communication to and from divisions and other subordinate commands the Corps Command Post should be constantly in operation. Its change of location is made quickly, even over long distances.

Before a move is made from one location to another, the communication system thereto must be established.

For the Cavalry Corps commander, communication to his divisions is of special importance. As a rule, if he does not accompany one of his divisions, he must follow close behind.

111. The division commander belongs with his troops.

112. During an advance the division commander with his small staff, is well forward.

In an advance in several columns, the division commander, if he does not march between the march columns, generally marches along the street upon which the trunk line is laid or along which existing communications means can be utilized. The cavalry division commander, according to the situation, marches with the most important column or between columns.

The division commander advances by bounds. There is always a horse or motor vehicle at his disposal. The remainder of the staff follows in the march column until it is ordered forward. Reports must be able to reach the division commander quickly and at all times.

113. Should contact with the enemy be imminent, the division commander remains with the advanced guard. It is there the situation first breaks and there can he exert more quickly his influence.

As contact is gained with the enemy it is better that the division commander be where he can observe. Therefore he belongs early on the field of battle and at the decisive area. His location must be easily found, easily reached.

114. In attack the division command post should be located as far forward as possible, yet so selected that the communications net to the side and rear is effectively shielded from hostile fire. To be desired are: observation of the battle field, either from the command post or a nearby observation post, and the possibility of establishing a landing place nearby.

Because of the greater breadth of front the command post in the defense is generally further in the rear.

The division commander must consider the signal officer's recommendations for the location, the time of establishment, and the time of movement of the command post. Frequent changes of the division command post should be avoided. The change is made only when the new C.P. is set up, communication thereto established. An intended change must be indicated to the signal officer in ample time. Provision must be made for the forwarding to the rear, of orders and reports received at the old command post.

115. In the pursuit the commander must be further forward. His appearance among the most advanced elements spurs the troops to the greatest exertions.

116. Should new combat impend after the earlier combat has been broken off, the division commander betakes himself to the areas of the new line of resistance, after he has convinced himself that his orders for the further conduct of the troops are being carried through. In difficult situations he remains with the troops. Unless ordered otherwise, lower commanders always remain with the troops.

117. The command post of the higher commander and the way thereto must always be recognizable by day and by night. The C.P. flag facilitates locating it, but it must be concealed from the enemy.

Protection against surprise air or ground attacks from all directions must be prepared. Considerations of security may force the locating of the C.P. within the protection of the fighting troops.

118. The correct combination of the staff and the suitable distribution of tasks are of especial importance. The higher staffs must function with the prescribed strength.

At the command post precautions must be taken and strict regulation of the work must be exercised in order to guarantee a quiet and sure leadership and to avoid placing the burden of details on the commander.

119. If the commander leaves the command post, the chief of staff becomes his representative there.

### III. Reconnaissance

120. Reconnaissance shall as quickly, completely and reliably as possible, provide a picture of the hostile situation. The results of reconnaissance form the most important basis for the decision and the utilization of the force.

121. The reconnaissance is designated as tactical and strategical reconnaissance, ground and air. It is amplified by special means as indicated in pars. 184 to 189.

122. Strategical reconnaissance provides the basis for the strategical decision.

The tactical reconnaissance provides the basis for the tactical leadership and conduct of the troops. At the latest must tactical reconnaissance begin with contact. It forms the basis for the conduct of the engagement. It is participated in by all arms.

123. No more troops should be employed for reconnaissance purposes than are necessary.

The reconnaissance forces are early concentrated in the most important direction, especially if we must reckon with superior hostile reconnaissance. In other directions only the most essential are employed.

An endeavor should be made to have reserve-reconnaissance elements which can be employed to reinforce or widen the reconnaissance in effect, or, if necessary, to be sent in a new direction.

124. Superiority in a reconnaissance area lightens our task, makes more difficult that of the enemy.

The winning of reconnaissance superiority on the ground is materially aided by aggressive conduct against the hostile reconnaissance units. According to this, all reconnaissance units down to the patrols so conduct themselves, in so far as the mission and situation permit.

If reconnaissance battalions are forced, in order to effect their missions, to break through, the hostile reconnaissance or security forces, they quickly concentrate their forces and drive through. Should the enemy be superior, our mission can often best be fulfilled by delaying action before the enemy and encircling him.

Army cavalry may be employed effectively for this encirclement. Should an independent motorized reconnaissance battalion be employed for this purpose, it must be timely reinforced by other motorized elements.

Sometimes, we can gain superiority by early surprise occupation of important terrain points. Because of their speed, motorized forces are most suitable for this purpose.

125. Good ground reconnaissance assures simultaneously a certain security. On the other hand, the activity of a counter reconnaissance battalion provides a certain amount of reconnaissance. Reconnaissance and counter-reconnaissance on the ground complement one another and cannot always be sharply separated. Reconnaissance battalions direct themselves against the enemy and move freely over the terrain. Counter reconnaissance (security) forces are tied to definite areas.

Should it be necessary to assign to a reconnaissance battalion simultaneously the mission of a reconnaissance and counter reconnaissance (security), then the order should explicitly state which has precedence. In forces of sufficient size, a portion may be assigned each task.

126. The reconnaissance of the terrain, its negotiability, the condition of the roads, railroads and bridges, obstacle possibilities, observation points and cover, as well as existing communication facilities are frequently assigned as tasks for the reconnaissance elements.

Without special orders, and in so far as the situation and the mission permit, all reconnaissance agencies are charged with terrain reconnaissance.

Air photographs aid and elaborate the ground reconnaissance.

Reconnaissance Means Cooperation.

127. Air reconnaissance is executed by reconnaissance fliers of the reconnaissance echelon.

Until battle reconnaissance is begun the instruments of ground reconnaissance are generally motorized and mounted patrols of reconnaissance battalions.

128. The merits of air reconnaissance are the speed of the planes, their ability to fly over hostile security forces, obstacles and positions, and thereby to be able to secure a far reaching view of the hostile situation. Moreover, planes are in general able to disregard ground forms. The flier, under favorable conditions, can secure and report quickly an extensive picture of the enemy.

However, air reconnaissance can deliver only temporary pictures of the hostile situation. Continuous observation of the same area usually is not possible. Further limitations on air reconnaissance are unfavorable weather, covered terrain and hostile air attack.

129. The simplest kind of air reconnaissance is visual reconnaissance. Its results depend on the elevation, which is determined by the mission and the hostile defense, on enemy camouflage and the observation conditions.

Daylight flights are most frequent, These are not limited to any particular hours.

The more hostile movements are made at night and the greater defense measures the enemy takes during the day, the more necessary becomes night air reconnaissance. Night reconnaissance is visual reconnaissance at low elevations, assisted by various means of illumination. It cannot compensate for daylight reconnaissance. It is limited to well defined and easily recognized landmarks, such as streets, railroads and water courses and therefore is restricted to limited tasks.

Reconnaissance flights made in the early morning or late evening may identify the completion or beginning of a night movement.

130. Air photographs complement and confirm the visual reconnaissance. The higher the plane must fly, the more necessary is the photograph. The air photograph provides information of the enemy, of our own fire effect and of camouflage. The photograph is of little importance when the need is immediate and the battle objective photograph is of temporary importance.

Photographs provide information of the terrain and assist in measurements (artillery fire).

Air photographs are taken in series or as individual pictures. Good pictures require bright daylight, their development demands time. For battle reconnaissance purposes results from a small number of pictures can be reported in one to two hours. The preparation of extensive pictures of the tactical reconnaissance requires two to five hours. For strategical purposes, requiring a great number of pictures, results can be expected in about ten or more hours. The development is made at the airport or a "development" car may be advanced to the landing field or in proximity to the command post of the commander.

131. As a rule, ground reconnaissance cannot secure a picture deep in the hostile area. The air reconnaissance often directs the ground reconnaissance to the most decisive area for its activity. Only ground reconnaissance can determine if a given terrain area is absolutely unoccupied by the enemy. Ground reconnaissance forces can, by prisoners taken, through wounded and dead, by other identifications, determine the hostile troop composition. Only ground forces can maintain continuous contact, determine the details of the hostile activity, learn the strength and composition and perhaps the battle worth of the enemy, and early learn of gassed areas. Likewise ground forces can operate under weather conditions which make impossible or very difficult the operations of air reconnaissance.

132. Motorized reconnaissance battalions procure quickly and at great distances, reconnaissance results. They will not be able always to identify details. Their activity is normally limited to daylight hours; advances can be made at night. The use of streets takes advantage of their speed. They should be made independent of more slowly marching reconnaissance forces.

The accomplishments of motorized reconnaissance battalions are dependent upon the capabilities of the vehicles, upon the replenishment of fuel, upon street and road conditions, terrain, weather, daylight and especially upon the possibility of utilizing their own and existing means of communications.

133. Mounted reconnaissance battalions have the advantage of greater mobility across terrain and the ability of travelling in all directions and to considerable distances. They are less dependent on weather, terrain and supply than motorized units. Their speed and march capacity are limited. They are able to observe the enemy from covered positions, to form a close meshed reconnaissance net and, what is of greater value, to determine details to a greater extent.

134. The greatest demands are placed on the leaders of all employed reconnaissance agencies, down to include patrol leaders. The personality of the leader is of decisive importance. Craftiness, dexterity, understanding of the situation, determined movement in every terrain, terrain resourcefulness by day and night, cold bloodedness, quick and independent conduct must be demanded.

All commanders are responsible that contact once gained is not lost, insofar as the mission does not otherwise prescribe. Contact which is lost should be regained immediately.

135. The disposition of the reconnaissance agencies is dependent upon the situation, the commander's intention, the kind and number of agencies, and the hostile counter reconnaissance with which we must reckon, upon the terrain, upon the road and street net, upon the time of the year and of the day as well as upon the weather. So many possibilities exist for the execution of reconnaissance missions that no prescribed conduct can be laid down.

All reconnaissance agencies must be uniformly (from one head) employed. Only in this manner can they efficiently work together and deliver a complete picture of the enemy.

All reconnaissance results at hand must be utilized for the further employment of the agencies. Only in this manner is the unnecessary employment of reconnaissance means avoided.

The quantity of reconnaissance means employed is not the decisive factor in the procurement of valuable information. It is of utmost importance, on the other hand, that every agency know where to send its reports and that it be instructed thoroughly as to the situation, the commander's intention and about agencies previously sent out and those adjacent.

137. Missions given reconnaissance agency commanders must be sharply defined and they must state those points whose establishments or identification is to be made and the sequence of their importance.

138. The higher commander, who orders and specifies the employment of air and ground reconnaissance also regulates communication between the two. He may also order special signs or signals. In general communication between the two is established by way of the higher commander. Immediate transmission of communications between the two is an exception because it is difficult to establish ahead of time the place, the time and the kind of communication. As a rule agreements as to direct communication must be made before the employment of the agencies.

If there is no air commander on the staff, the communication between the higher commander and the air reconnaissance is secured through an air liaison officer. Such liaison is especially important when, because of the great distance of the airport, a landing place near the C.P. must be established. Such a landing place must be supplied with the necessary personnel and means.

To the commander of the air reconnaissance unit must be given: (1) the probable routes of the ground reconnaissance battalions or units, (2) the route of march of the main force, (3) and planned landing places, so that he may inform the individual fliers where our own troops may be found. Fliers and troops are to be instructed to recognize each other.

Occasionally higher commanders may hold individual planes at their immediate disposal.

139. Fliers and reconnaissance battalions secure communication through lights and signals, by means of dropped messages and pick up stations. Radio may be used if it is at hand and the radios have the same sending and receiving possibilities.

As a rule fliers cannot instruct reconnaissance battalions concerning the foremost enemy elements which from the air are difficult of determination.

140. The higher commander determines the kind of communications to be used between motorized and mounted reconnaissance battalions. Moreover, connections are to be established independently and at every opportunity; in the foremost line by radio. Upon meeting all reconnaissance agencies should exchange worth while information. As to inspection of reports, see par. 100.

141. The quick and sure transmission of reconnaissance results up to the higher commander requires thorough regulation.

Reports of fliers normally are submitted after the return to the airdrome or landing place. They are transmitted by phone, motorized messengers, or exceptionally by radio. Under special circumstances the observer makes a personal report. Important elements of the reconnaissance should be reported quickly and before the entire report is submitted. As for the report, it should be written, in clear, concise, but complete form. Reports from the plane are made by radio or dropped messages.

Reconnaissance battalions, lacking an existing communication line, employ the radio or motorized messengers. Mounted battalions, in case of necessity, use mounted messengers. Mounted patrols report, as a rule, by means of mounted messengers. Motor - or bicyclists may be attached to them. Existing communication facilities should be utilized. Especially important mounted patrols may have radio or "Blinker" equipment assigned.

Battle reconnaissance reports often are of value only if they can be employed immediately to the greater effectiveness of the weapons employed.

142. Because of the danger of interception the unlimited or very extensive employment of the radio in the reconnaissance area must be governed by the higher command. Should "radio silence" be ordered, other means of communication must be maintained to guarantee the transmission of information.

#### Execution of Reconnaissance

143. The strategical reconnaissance embraces the observation of the hostile concentration, particularly his concentration by rail, his advance or rearward march, the loading or unloading of army elements, the construction of field or permanent fortifications and the hostile air unit concentration. The early identification of large hostile motorized elements, especially those on an open flank, is important.

144. Special reconnaissance echelons of the air force execute the air strategical reconnaissance.

Generally, the strategical air reconnaissance is one of photographs taken at altitudes between 5,000 and 8,000 meters. The depth of this reconnaissance may extend to the limit of the flight range.

Should we not expect an early meeting with the enemy on the ground, it may be suitable to draw upon the Army reconnaissance echelons (air) for strategical reconnaissance, these in addition to the special air force echelons. The army echelons have planes of less range, less speed, less rapid ascent capability.

145. Independent motorized reconnaissance battalions and army cavalry are employed for strategical ground reconnaissance. Army cavalry is used preferably for open flanks and in directions where its later battle employment is probable.

146. The principles of strategical reconnaissance are in general those of tactical reconnaissance.

Since the missions assigned strategical air reconnaissance are generally limited to the observation of important roads and railroads, the assignment of reconnaissance areas seldom comes into question.

As a rule, independent motorized battalions and army cavalry are assigned only a direction and an objective. If necessary, they may be assigned boundaries on one or both flanks.

147. The tactical reconnaissance embraces the identification or fixing of the assembly of the enemy or his advance as it approaches nearer us, his organization, distribution, extension in breadth and depth, his supply, his possibility of reinforcement, his air situation, especially as to new airdromes, and his air defense.

Timely reports of hostile motorized elements are very important.

The depth of the tactical reconnaissance depends upon the situation and the capabilities of the agencies.

For the employment of the tactical reconnaissance agencies, especially as to their direction, the results of the strategical reconnaissance should be utilized, provided delays are not occasioned thereby. Should there be no strategical reconnaissance, the tactical reconnaissance agencies must be sent further towards and around the enemy.

The nearer we approach the enemy, the more is detailed reconnaissance necessary.

148. Air tactical reconnaissance is executed by the reconnaissance echelons of the army.

Tactical ground reconnaissance is executed by motorized reconnaissance battalions and by mounted reconnaissance battalions (of Army, Cavalry and Infantry Divisions).

Note: The Infantry Division reconnaissance battalion as set up at present consists of: one Cavalry Squadron (American troop), one bicycle company, one heavy machine gun platoon, either pack or four horse drawn, and perhaps a tank defense platoon (3 tank defense guns). The mounted reconnaissance battalion is organized to provide the utmost tactical mobility.

149. The Army commander and the Corps or Cavalry Corps commander employ the reconnaissance battalions immediately under their command and arrange the cooperation of these with reconnaissance forces of subordinate units.

The cavalry division commander may employ his motorized and his mounted reconnaissance battalion one behind the other, or employ his mounted battalion to the front and the motorized from one wing against the flank of the enemy. Army cavalry motorized battalions should be used to the utmost so that the mounted battalions may be held together for battle.

150. The tactical air reconnaissance is usually made at heights from 2,000 to 5,000 meters.

As a rule, reconnaissance areas are assigned to the reconnaissance echelons. For this purpose indicated places and lines are included in the boundaries of both mutually adjacent elements, or overlapping areas are assigned. Air boundaries are not dependent upon the boundaries assigned ground troops. Echelons on the flank at the same time execute reconnaissance against the hostile flank.

151. The order given the commander of a reconnaissance air echelon may contain in addition to the mission: Instructions as to: (1) communication and information transmission to the higher commander and to reconnaissance battalions, (2) special message deliveries, (3) the route(s) of the main force and reconnaissance battalions and times of arrival or departure of these elements, and (4) landing places. The echelon commander assigns tasks to the various fliers and explains the situation, etc. He specifies the fliers for particular duties, decided upon the planes to be employed and the times of flight. Normally, the pilot chooses the route.

152. The reconnaissance fliers as a rule are employed individually and at those times during which the most favorable results are to be expected. They avoid air combat. Reconnaissance and attack (pursuit) planes may be despatched simultaneously.

153. Generally, reconnaissance fliers should be assigned only one long, strenuous flight per day. A plane may be employed on short trips a number of times daily, if thereby greater rest is provided for other crews. Because of the limited number of reconnaissance planes and because of their manifold and difficult tasks, it is essential to employ them only in the most important directions, employing other agencies in other directions.

154. For ground reconnaissance, zones of responsibility are normally assigned the reconnaissance battalions. In order to make them independent or to facilitate their change of direction, they may be assigned merely a reconnaissance objective. In such instances lines of separation may be given between adjacent reconnaissance units.

The breadth of a reconnaissance zone is determined by the situation, the kind and strength of the battalion, by the road net and terrain. In a broad zone we must often have gaps between adjacent reconnaissance units.

Streets may not be used as "division lines" or as boundary lines. Main streets or roads should lie in the center of a reconnaissance zone.

155. Combat which is not necessary to the driving off of hostile reconnaissance or the gaining of information, should be avoided. Should reconnaissance battalions be employed, exceptionally, on security missions, they should be, if necessary, adequately and timely reinforced. All commanders are responsible that the reconnaissance missions do not suffer as a result of the security missions.

156. The order issued a reconnaissance battalion contains as a rule, in addition to the mission, (1) time of departure, (2) instructions concerning adjacent reconnaissance units, (3) zone or direction, (4) objective, (5) the line to be reached during the day by patrols, (6) instructions for the transmission of reports including the location of immediate objectives whose attainment is to be reported, (7) under some circumstances times reports are to be submitted, (8) instructions about eventual communication with fliers, and (9) time of departure, route and objective of the main force.

Instructions as to conduct upon hostile contact and with the civilian population may be necessary.

Similarly orders are issued to patrols.

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157. When contact with the enemy is to be expected, motorized reconnaissance battalions advance normally by bounds. The length of bounds is influenced by the form and cover of the terrain as well as by the road net. As the distance to the enemy decreases, the bounds are shortened. If and how the advance by bounds is to be protected, depends on the situation.

All elements of a motorized reconnaissance battalion utilize roads and streets as long as possible. In a hostile land the return must often be made over different streets. Points along the roads and towns which are important for the movement must, in case of necessity, be secured.

In order to secure rest during the nights, patrols may be sent out as security forces. Villages or towns on main highways are not recommended as normally suitable for billets or bivouac.

158. In general the breadth of zone for a motorized reconnaissance battalion should not exceed 50 kilometers (about 30 miles).

The depth to which the battalion is employed must take into consideration the adequate supply of gasoline and oil. In order to provide for unforeseen circumstances, a surplus of gas and oil should be reckoned.

The total cruising range of armored motor vehicles is between 200 and 260 kilometers (125 to 150 miles), without resupply.

159. Patrols for the execution of reconnaissance are, according to the mission, the conduct of the enemy and the civilian population, the roads and the probable message return, constituted of armored cars, machine gun motor vehicles, and according to need, motorcycles. Stronger patrols are employed along the more important roads and against more important areas. The commander of the battalion normally sends out the patrols.

160. Routes and objectives are given the patrols in orders. Normally they cannot be utilized for the close-in security of the battalion or the unit from which sent. They advance by bounds from O.P. to O.P.. Their distance in front of the battalion is determined by the situation, the terrain, and the range of the signal means. As a rule they precede by not more than an hour's traveling distance.

161. The motorized reconnaissance battalion serves as a reconnaissance reserve for the patrols, a message assembly group and as the general reserve of the reconnaissance element. When the patrols are at a great distance in front of the battalion, their communication to the rear must be assured, under conditions through the advancing of elements between the patrols and the battalion.

Contact once gained with the enemy is maintained, if necessary, by the further employment of reconnaissance vehicles. Motorcycles may well be employed to thicken the reconnaissance net.

162. When the near approach of the enemy does not permit the further profitable employment of the motorized battalion it is withdrawn, and the closer reconnaissance is taken over by the mounted reconnaissance battalion. The commander so governs this that the reconnaissance is not interrupted and the hostile contact is not lost. Elements of the motorized battalion may be temporarily attached to the mounted battalion to assist its activity.

Motorized reconnaissance battalions withdrawn from the front should be employed to reconnoiter the flanks and rear of the enemy or to screen a gap between elements of the army or hold behind the front as a reserve.

163. Mounted reconnaissance battalions must be sent out sufficiently early to gain their distance in front of the main force without haste and to have at their disposal the time necessary for reconnaissance.

For their patrols they form a reconnaissance (patrol) reserve. They advance by bounds, in general avoiding the main roads; especially if they lack tank or armored car defense weapons they only observe those main roads. The less can the terrain be observed at a distance, and the nearer the enemy is presumed, the shorter must the bounds be made.

164. Mounted reconnaissance detachments are formed by the Army Cavalry to conform to the mission, the situation and the terrain. The strength varies between a platoon and two squadrons (U.S. troop approximately); in special cases a cavalry regiment (5 or 6 squadrons) can be employed for reconnaissance. As a rule bicyclists provide the radio means. Heavy machine guns, motor-cyclists and tank defense weapons are attached according to need. Artillery may sometimes be attached. But as a rule it is not suitable to decrease the mobility of mounted reconnaissance detachments by adding less mobile elements. For this reason it may be recommended to leave the baggage vehicles behind temporarily and, if necessary, to compensate for this by requisitioned vehicles which may be abandoned if necessary.

165. The zone assigned a cavalry division for reconnaissance should not exceed 50 kilometers in breadth if it is to be observed thoroughly and without gaps. The number of mounted reconnaissance detachments employed is determined by the breadth of the division zone. Should the zone exceed 50 kilometers, an effort should be made to secure reconnaissance in the most important direction without gaps.

166. Zones are assigned to mounted reconnaissance detachments corresponding to the road net. The zone assigned a squadron (U.S. troop) should in general not exceed 10 kilometers. Squadrons sent out on independent missions, likewise platoons and officer patrols sent out in our own land, are ordinarily given only a direction and reconnaissance objective. On such missions can we seldom hope for reconnaissance without gaps.

167. The cavalry division commander must have the mounted division reconnaissance battalion firmly in his hand. Its distance in front of the main body of the division is dependent upon the commander's intentions and the situation; seldom will it be more than 30 or 40 kilometers in front. In the employment of platoons and independent officer's patrols, consideration must be given to the sending capacity of the attached radios.

Generally mounted reconnaissance battalions receive daily missions. Should it be possible to assign at one time tasks for several days, it may be advisable to direct that the battalion proceed on the following day's task only if no other order has been received by a certain time.

Mounted reconnaissance battalions rest during the night away from the main roads, which, however, they observe and block, so far as necessary.

168. A message assembly center may be advanced when several mounted reconnaissance battalions are employed. If the cavalry division changes its march direction, a message assembly center is indispensable.

169. The disposition of the reconnaissance battalion of the infantry division depends upon the mission, the situation, the commander's intention, as well as upon the breadth and depth of the reconnaissance area.

The division commander assigns, in general based on the Corps order, the missions and directions for the reconnaissance. He determines its distance in front of the division, which in general can be less than that of the mounted reconnaissance battalion of the cavalry division. (An infantry division reconnaissance battalion is composed of: a squadron of cavalry, a bicycle company, a heavy machine gun platoon, and perhaps a

platoon of tank defense guns) and prescribes any special task. Should the reconnaissance battalion of a division marching in one column be attached to the advanced guard (which is exceptional) the advance guard commander assigns tasks and prescribes the distance in front of the advance guard. These tasks are based upon the intentions of the division commander. The subdivision of the division reconnaissance battalion and allotment thereof to various march columns is to be avoided. The fact that other reconnaissance agencies may be operating in front of the division does not release the division commander from responsibility for his own reconnaissance. Should there be no reconnaissance agency (for example, motorized reconnaissance battalion) in front of the division battalion, the objective of the latter may be placed farther forward. Yet, the connection with the division and the message and order transmission must be assured.

Should the march be executed on a broad front, precautions must be taken to assure the timely receipt of information by all column commanders.

Should the division be in close proximity to the enemy it may be recommended to hold the reconnaissance battalion back and to send out patrols only.

170. The commander of the division reconnaissance battalion directs the execution of the reconnaissance and sends out the patrols. Should the division commander send out patrols, he must inform the reconnaissance battalion commander of these patrols and their missions.

Should the reconnaissance battalion commander receive no instructions or should he find himself in an unexpectedly changed situation, he must execute the reconnaissance in the manner he believes the division commander would desire.

171. The commanders of mounted reconnaissance battalions must have their patrols well in hand. Close objectives (10 to 16 kilometers), well defined and limited missions, and rapid advances from area to area are presuppositions for successful patrol work. Through patrols already in contact, as well as through the timely employment of new patrols, contact gained with the enemy must be maintained.

In order to conserve the strength of patrols, it may sometimes be appropriate to transport them on trucks while they remain a part of the battalion and before their employment as patrols.

172. The strength of patrols is determined by their mission, the conduct on the part of the enemy and the civil population. The number of messages probably to be sent back must also be considered. We must always remember that the larger the patrol, the less easily can it operate unobserved by the enemy. A second in command should normally be designated.

The patrols may be utilized to secure the battalion. Patrols use as long as possible the existing roads and advance by bounds from O.P. to O.P.

173. Under the protection of the mounted reconnaissance battalion the individual arms send forward such reconnaissance elements as may be necessary for the later and timely employment of these arms. The commander of the reconnaissance battalion should be given instructions concerning these reconnaissance parties, which may be temporarily attached to the battalion.

174. Battle reconnaissance as a rule is begun when the troops begin to develop.

Often is it felt as one draws near the enemy that the necessity for security is greater than the need for reconnaissance. Every commander must be watchful that the reconnaissance is not neglected in order to arrive at greater security.

175. With the beginning of the battle reconnaissance the mounted reconnaissance battalions which are in front must be instructed whether they shall evacuate the front and reconnoiter the hostile flanks or whether they shall continue in their zone, occupy important terrain points and be absorbed by the main force or whether they shall withdraw on this force.

Should the reconnaissance battalion receive no orders it remains before the front, further executes reconnaissance, screens the advancing main force and retires only when forced by the enemy. Mounted reconnaissance battalions return normally to the units from which they were sent. Division reconnaissance battalions of interior divisions are withdrawn behind the front after their tasks are fulfilled.

If a mounted reconnaissance battalion is employed on an open flank, if possible, it should be echeloned forward.

176. The battle reconnaissance by aviators shall provide information about the hostile force distribution, namely his artillery, his bivouacs and movements, of reserves, of tanks and of special occurrences behind the front. They observe the course of the battle.

In general battle reconnaissance is executed under 2,000 meters. Reconnaissance at low altitudes is necessary if details are to be identified and the advance of our own and the hostile infantry is to be observed. The troops must on request identify themselves to our aviators by panels, signals or lights.

The execution of our air battle reconnaissance is to a great extent dependent upon the air situation. Not only must it be supported by our anti-aircraft, but often by pursuit planes.

177. Observation from captive balloons complements the battle reconnaissance. The employment of captive balloons may be limited by hostile air activity and the range of the hostile artillery. In quiet and clear weather it is possible to investigate the battle field thoroughly and to secure, by means of photographs, an excellent picture of conditions. Captive balloons provide an excellent means of watching the front continuously, of observing hostile artillery fire, its strength and extent, and of observing our own forward elements. Their most important employment is in the service of our own artillery.

178. The commander (Truppenfuhrer) can order the boundaries and often the objectives of the ground reconnaissance of his subordinate units. Every unit, without special order, is responsible for the battle reconnaissance within the zone assigned for its march, its development and battle. Every unit with an open flank is likewise responsible for flank reconnaissance.

Should the reconnaissance elements strike hostile resistance through which they cannot break through or envelop, they must either be reinforced sufficiently to push this force aside or the main force must take over the reconnaissance. Ordinarily battle reconnaissance demands a concentration of force and a unified employment of the forces, which attack with a limited objective at the area most important to the execution of the ground reconnaissance.

Sometimes small mounted or infantry patrols held in readiness by the commander and employed suddenly can quickly secure details of enemy disposition and conduct.

Should patrols be employed at night, they must be instructed sufficiently early to be able to make reconnaissances and plans during daylight.

179. Battle reconnaissance requires time. Therefore foresight is essential in order to secure the advantage of early employment and information. Thorough consideration must be given this need of time for battle reconnaissance.

180. The battle reconnaissance of the individual weapons serves their particular needs. Often it can be executed during the tactical reconnaissance.

The rapid exchange of information and identification between elements and with neighboring units, accelerated reports of important information sent to the higher commanders who for their part must provide for the dissemination of information furnished them, secures a rapid evaluation of the reconnaissance results and usability for all arms.

The battle reconnaissance extended by the individual area is of greater meaning if the air reconnaissance is insufficient or is not possible and the special reconnaissance means for ground reconnaissance are exhausted.

181. The battle reconnaissance must often simultaneously serve as close security and to reconnoiter the terrain (for example: approach avenues and possibilities, areas covered against enemy observation and fire, observation points and firing positions). If possible, other forces should be employed for these purposes.

Battle reconnaissance can also identify our own front lines.

182. Observation of the battle field by commanders of all grades or by especially designated officers is an essential element of battle reconnaissance.

183. Of great value is the observation of the battle field by the observation battalion (F.A.). Its observers are often in position to give early important information to the commander. Likewise during the course of the battle are they able to secure important information through the activity of the flash ranging battery.

#### Intelligence through special Means

184. The air report service observes the hostile air activity and thereby secures important information for the estimation of the air situation. It can deliver worthwhile observations which serve as an indication of hostile intentions, even before hostilities are begun on the ground.

185. The intelligence reconnaissance of the signal troops is assured by observation of the hostile signal traffic both in the air and on the ground. For this purpose listening posts, troops to seek out hostile "Blinker lamp" use, and the tapping of hostile wires are used. This work requires unified leadership, especially trained operators and secrecy.

186. In our own land we can often secure worthwhile information by way of telephone offices located in the direction of the enemy, even though in a round about way. This may often save the employment of reconnaissance agencies.

In our own land we may occasionally employ agreed upon visual and audible tokens to secure information.

In a foreign country reconnaissance agencies can often secure information by cutting in on public telephone traffic.

187. The hostile press is to be observed. The higher commander issues special instructions concerning this.

188. Unified regulations are required for the examination of prisoners and the evaluation of captured papers (orders, maps, pay and memorandum books, letters, newspapers, pictures, rolls of films etc., which are found on prisoners, on wounded, on pigeons, on messenger dogs, in villages, in positions, in captured vehicles, planes, balloons, etc. and these must be protected against destruction). Specially selected officers must be present for the examination of prisoners.

After a short examination, which limits itself to the immediate combat situation, and captured papers after a brief inspection are to be delivered via the shortest route to the headquarters of the commander.

Capable and quick individual examination of prisoners is of great value. This examination endeavors to identify their organization, neighboring troops, what they know of larger units, the name of their commander, the last bivouac, the march or means of transport, the condition of their units, their morale, their mission as well as any special weapons or means they had. The employment of force is not legally permitted. Papers, with the exception of those containing matters of military import, are returned to the prisoners after they have been scrutinized.

The names of killed, as well as the number of the unit and the insignia worn are to be identified.

189. The utterances of inhabitants provide worthwhile information. The search of railroad stations, post offices and similar offices may produce telegrams with military contents, codes, and call signals etc. Official communications may give important information. Particularly in a pursuit can worthwhile information be secured as indicated in this paragraph.

#### Counter Espionage

190. The enemy will seek to gain information in a manner similar to that employed by us. The strictest superintendence is necessary both in the homeland and at the front. We must also carefully watch the various means of hostile propaganda and the communication with the population of the hostile land in an endeavor to influence our troops.

A carefully planned defense against espionage must be instituted by the high command. For this purpose the secret field police are at the commander's disposal. Moreover it is the duty of the troops to protect themselves, especially in bivouac or billet, by the continuous observation of suspicious persons, by caution in conversation and telephone communication, by security of the regulations and written matter in the various headquarters etc. All observations made should be reported immediately to the secret police and all persons suspected of espionage seized and taken to the police.

191. Discretion is indispensable on the part of both commanders and troops. In this respect ~~outgoing~~ signal communications require supervision.

192. Great caution must be exercised as to the contents of letters and the entering of personal experiences in diaries and similar writings.

Under certain conditions letters must be censored. Letters may contain no statements as to the situation, troop distribution or any special points of value to the enemy. Regulations governing the field post office service provide for supervision of the letter traffic.

193. Posters and designations are best omitted from billets, should they be used, they should be removed before departure therefrom. Markers on vehicles and trains are also treacherous. These markers may be temporarily covered.

Writings which are no more of use should be burned. When the billet is evacuated everything, even documents of the slightest value, should be taken. Supervision of this work is necessary.

194. Reconnaissance and security forces and the advanced elements in combat shall have no kind of order, writing or regulation which may be of value to the enemy. Insofar as it is absolutely necessary for reconnaissance agencies to have written orders or maps with notations thereon and these cannot be kept so as to be valueless to the enemy, it is their duty to destroy these orders or maps when danger of capture arises.

#### IV. Security

195. Security measures are employed to provide against surprise attack as well as to limit hostile observation both on the ground and from the air. Where these measures are employed primarily against observation, they serve also to screen.

Security is necessary during rests, during movement and to a lesser degree during battle. As the distance from the enemy decreases security in general is directed primarily against the enemy on the ground. In battle the kind and amount of security measures are determined by the situation. Under no conditions shall too great attention to security measures make less likely the fulfillment of the mission.

196. An essential part of security is a continuous reconnaissance.

For the relation between security and reconnaissance see paragraph 125.

197. Security against air attack is accomplished by means of pursuit (attack) aviation and anti-aircraft weapons, by orders of the higher commander specifying measures to be taken as to distribution of the troops and camouflage, by utilizing darkness for the march and other movements and by the employment of all air defense measures on the part of all troops.

198. Security against the ground enemy is in general procured by sending out in front of the troops to be secured small units which maintain an increased state of readiness. Under certain conditions the main troops themselves may assume a greater state of readiness.

The strength, composition and organization of these security forces depend upon the situation, the intention, the total strength, the distance from the enemy, the terrain and the degree of visibility. So far as possible, tactical unity should be preserved in these forces used for security.

During rest periods, larger units secure themselves, insofar as local security is inadequate by outposts or battle outposts; during a march, by advance guards; in retirement or retreat by rear guards; in flank, when necessary, by flank guards.

Moreover, every unit requires close-in security. This may be ordered in common for several units.

199. Security service increases the demands upon the troops. Therefore no more force should be used for this purpose than is absolutely required.

## Security during Rest

200. Resting troops establish on the ground outposts or battle outposts, depending upon the degree of the danger.

Outposts repel minor attacks, protect the main body from disturbances and secure to it the time necessary to prepare for battle or march. They deny hostile insight into the dispositions etc., of the main body.

Battle outposts are established when partial or complete battle readiness on the part of the resting troops is anticipated. They protect the immediate advance into battle of the elements prepared for battle; otherwise their task is that of outposts.

Outposts and battle outposts reconnoiter only so far as the security of the resting troops requires. Further reconnaissance is a matter to be accomplished by other troops and ordered by the commander.

201. How the various tasks are to be accomplished each situation must determine. It is feasible to state only general principles. Outposts and battle outposts execute their missions in accordance with each individual situation. The more unclarified the enemy situation, the more carefully must the security prepare itself to counter his various possible actions.

202. Protected sectors make the security easier and enable protection to be secured with weaker forces, where admissible, the trains and service elements should be bivouacked behind sheltered (by natural features) terrain.

Unguarded and open flanks must be protected. According to the circumstances the flank may be curved backward, may be echeloned to the rear, or may be protected by specially designated units. Protection of the rear may also be necessary.

Obstacles and field fortifications are suitable means of reinforcing the security.

Special attention must be paid to defense against armored vehicles and tanks.

203. During the day and even more so at night are troop movements, apart from those in battle, essentially tied to the streets.

It comes as a matter of preference to occupy and block those streets leading from the direction of the enemy and those leading from the open flanks. During the day and with good observation it will normally be sufficient to occupy commanding terrain with good fields of fire. These points from which the enemy can secure observation over our own troops should also be occupied.

In terrain in which visibility is not good, during inclement weather and during darkness, stronger security forces are necessary. Less depth to the security units and closer proximity to the main body may be necessary.

204. All security elements must seek concealment from both air and ground hostile observation.

Favorable rear O.P.'s may be utilized to observe the forward terrain.

205. Every effort is to be made to secure rapid and reliable communication between elements of our own security forces, to the neighboring security elements and to the resting troops.

206. Each security command protects itself by means of sentries, the number of which varies according to need.

207. Sentries, cossack posts, sentry squads, patrols of every kind render no formal courtesies in security service. They report to their seniors without interrupting their observation.

208. Relief of all security elements is made simply and quietly. All information of value is transmitted to the new commander, who is to be instructed as to the terrain. During the relief, the security must be granted.

209. An attack must find all elements of the security forces in full readiness. They must be prepared for every sacrifice in order to accomplish their mission, the security of the resting troops.

210. Air defense for the resting troops is in accordance with paragraphs 662 and 696. The security forces may be included in the general air defense security measures. But they are responsible for their own security measures against hostile air units, the most important measure being camouflage.

#### Outposts

211. The decision of the commander as to the area in which the troops will rest provides the initial consideration for the location of the outpost. Further, the length of time the outpost must remain in position and the further intentions must be considered.

The strength and composition of the outpost is determined by: (1) the enemy threat, (2) the strength, composition and kind of troops to be secured, (3) terrain, (4) time of day, (5) and special conditions. Should troops lie between the outpost and the enemy, the outpost may be correspondingly weaker.

212. At a considerable distance from the enemy (150 - 200 km) we need normally employ only the most simple of security measures. These consist in security of the immediate bivouac area, with small groups sent out as the need arises. As to security of the rest area by means of outlying pickets see paragraph 677.

Should this kind of security appear insufficient, the higher commander or the commander of the bivouac groups will direct that the troops nearest the enemy provide security for the main groups and will designate a leader of these security units. Should several sectors be designated, a commander should be assigned each sector. The commanders responsible for the security may be, at the same time, area or bivouac commanders. They determine upon the conduct in case of attack, the degree of readiness of the main force in bivouac, and the security forces which are established. The security of the whole can be increased through corresponding distribution of the troops within the bivouac area.

Army cavalry and motorized units secure themselves primarily by far reaching reconnaissance and greater depth of disposition in the bivouac area.

213. A greater degree of security is assured through the establishment of an outpost system beyond the resting troops.

The establishment of such an outpost system does not, as a rule, relieve the resting troops of providing local security.

214. Infantry is most suitable for outpost service. As required it is reinforced by other arms.

Mounted men should be used sparingly and when used normally are taken from the cavalry platoons of the infantry regiments. On good streets and at night bicyclists serve well on outpost duty. Artillery is seldom employed within the outpost. When employed preparations must be made for night employment.

The defense by armored vehicles may be reinforced by elements of the division tank defense battalion.

Engineers may be employed to erect obstacles and hindrances.

The establishment of a communication net is in general the task of the signal units.

215. When troops rest on the march, the advance or rear guard is normally assigned the task of securing the main body, utilizing for this purpose all or part of the advance (rear) guard.

The establishing of the outpost must itself be protected.

Should there be a division reconnaissance battalion, it may be detailed under exceptional circumstances to protect the establishment of the outpost. The outpost must be instructed concerning the dispositions of the reconnaissance battalion. During the night it may be suitable to withdraw the reconnaissance battalion within the outpost, having, however, the patrols in contact with the enemy.

216. When the command rests, the commander designates the rest areas of the troops to be protected. Insofar as he has not delegated such matters to the commanders of the several march columns, he directs (1) the troops for outpost duty, (2) the outpost sectors, (3) the sector commanders and the sector boundaries, (4) the most advanced security line, (5) the extent and objectives of the outpost reconnaissances, (6) the conduct of the outpost if the enemy attacks and (7) the communication with adjacent outposts.

The kind of defense, active or passive defense or delaying action dictates whether the outpost will be reinforced from the main body or whether the outpost will retire on the main body.

Whether a continuous outpost line of adjacent elements is to be established depends upon the situation, the breadth of the troops to be protected and the terrain.

Important streets, railroads and terrain points must be within the outpost. Where gaps occur, responsibility for their observation must be ordered.

217. An outpost sector is normally manned by a battalion, reinforced if need be by other arms.

Initially the outpost sector commander issues the most urgent orders for the security. In this category belong: (1) the occupation of commanding terrain, (2) obstacles on important streets and roads, (3) reconnaissance and terrain information and (4) the preparation of the de-

fense by the main outpost force.

After personal reconnaissance he elaborates the initial orders, for example: the location of the defensive position or line of resistance to include the conduct in case of enemy attack, instructions concerning connection with other troops, field fortifications, signal communications, the degree of readiness, and air and gas defense measures. Among other matters he directs whether or not tents will be pitched and if there may be fires. He prescribes the dress. Unless otherwise ordered, the pack is to be removed during outpost service.

Moreover, the outpost sector commander decides upon the location of the reserve, the type of its bivouac or billet, the degree of its readiness, its local security and eventual execution of outpost duty and his own command post.

Quick and reliable means of communication from all parts of the outpost must be established to the outpost sector commander's command post. Likewise his O.P. is connected with that of the higher commander. Often the division trunk line can be used for this communication, especially if it has already been laid along the route of advance and up to the forward security forces.

218. The rifle companies employed in an outpost sector are the chief security forces. In exceptional cases independent platoons may be employed instead of companies. According to needs the companies may be reinforced by heavy infantry weapons, cavalry troops or bicyclists. They establish themselves, according to the orders received, in their sectors in position or in a defensive line. The company commander, based upon the orders of the outpost sector commander, decides what portion of his company will occupy the position or line of resistance and which shall rest. During the day and with good observation "Feldwachen" or "Feldposten" usually suffice as the position or line resistance garrison (see par. 220 - 221). For reconnaissance, for security and for communication with neighboring sectors the company commander sends out patrols. Under certain conditions he sends out standing patrols which occupy suitable terrain in front of the sentries. These standing patrols remain out until relieved.

219. "Feldwachen" and "Feldposten" may be pushed forward to suitable points by the rifle companies. The number, strength and assignment of heavy weapons (heavy machine guns and Minenwerfers) thereto are determined by the mission, the position of the most advanced line of security (resistance), the importance of the advance points and the proximity of the enemy. In order not to reduce unnecessarily the combat effectiveness of the company, these advanced posts should be sparingly employed and only when most needed. The company commander, as a rule, specifies how the "Feldwachen" and "Feldposten" shall conduct themselves when attacked.

220. The strength of "Feldwachen" varies from a group (16 men) to a platoon (3 groups). Corresponds to a U.S. picket.

The "Feldwachen" secures itself by sentries, patrols and standing patrols.

221. As a rule, a "Feldposten" consists of three men (cossack post), one of whom is the leader. Important points should be occupied by troops with light machine guns. As a rule, cossack posts should not be more than 500 meters from their supporting unit.

A "Feldposten" must have a good view of the terrain and must itself be out of enemy view. The occupation of high points is advantageous for sight and hearing. Generally there is a difference between day and

222. Within a picket (Feldwache) the commander thereof, or the company commander, regulates the reliefs. The commander responsible for the relief must assure himself that the "Feldposten" is thoroughly familiar with the general instructions and that the relieved "Feldposten" transmits all special instructions to the relieving "Feldposten" and that these instructions are fully understood.

223. Commanders of all elements of an outpost, down to include the pickets (Feldwache) report without delay, including a sketch, the measures they have instituted for reconnaissance and security and the communication they have with adjacent units.

224. In order to spare horse flesh, army cavalry will seek to avoid the establishment of strong outposts. The greatest rest with proportionately small outpost service is to be found behind a protective sector or barrier. The advantage of such protection permits a short rearward movement unless the situation demands that the terrain reached be occupied or held. The retirement behind the natural security must be protected by security forces.

At night army cavalry will frequently call upon its bicycle units or attached motorized infantry for outpost duty.

The instructions applicable to infantry outposts are equally fitted to cavalry outposts. Cavalry requires more time to march out prepared for battle than does infantry. Cavalry outposts are established with or without their horses.

• Cavalry units in outpost service which are as large as or larger than a troop normally have their animals with them. Weaker detachments, unless otherwise ordered, normally do not have their animals with them. Should the animals be present, a "Feldwache" consists of at least a group, a "Feldposten" at least of a squad. The animals of "Feldwache" and "Feldposten" remain saddled. If the terrain is such as to permit surprise, it may be advisable that the "Feldposten" remain mounted.

225. Should the situation not demand that motorized units remain in the terrain they have reached, their speed permits them to rest at some distance from the enemy or to withdraw behind others for protection during their rest.

Should separate motorized elements be called upon to establish outposts, in addition to motorcycle troops and attached motorized infantry, armored vehicles may be utilized for this service (for example behind defiles and obstacles). All vehicles belonging to the resting units must be serviced and made ready for travel before darkness sets in. The location must permit quick departure. Too close assembling lessens the maneuverability and celerity of departure.

#### Battle Outposts

226. In addition to the general instructions applicable, as stated in paragraph 198, the strength, composition, and organization of battle outposts are in the main determined by the degree and extent of battle readiness of the main force, the intended conduct of the troops against a surprise hostile attack and any special employment contemplated.

The primary mission of battle outpost troops is not that of sparing themselves strong sectors, effective obstacles and hinderances justify less strong battle outposts.

night occupation of the terrain by cossack posts. The posts should be equipped with field glasses and signal means.

Two members of the cossack post observe jointly, they must agree among themselves as to the time of actual observation.

As a rule cossack posts dig themselves in, Whether the members may sit down, lie down, remove the pack, or smoke is stated in orders.

The cossack post observes in the direction of the enemy, As soon as it observes anything, suspicions on the heart of the enemy, it immediately reports its observation.

Should there be danger in delay, or should an attack impend, the sentinels give the information by firing. The posts inform passing patrols of the situation as they know it.

Persons who are known, are permitted to pass in and out. All others must show their credentials or prove their identity or they are conducted to the next higher authority. Orders regulate "Feldposten" conduct with respect to a blockade and as to our own and hostile motor vehicles.

It is often suitable to issue a "password".

Upon the challenge of a "Feldposten" the one approaching must stop. He who does not obey the orders of the "Feldposten" is shot.

During darkness everyone who approaches the "Feldposten" is challenged as follows: "Halt, who is there?". Should the one approaching be challenged three times and should he not halt, he is shot.

Individual enemy officers, accompanied by a small group, who identify themselves as emissaries or negotiators, as well as enemy deserters, will not be treated as enemies. They will be required to lay down their arms and will be conducted to the next higher commander, deserters blindfolded and without being permitted to converse.

In addition to the above general instructions all "Feldposten" receive special orders which cover instructions concerning:

- (1) enemy and localities,
- (2) location and mission of advanced and adjacent units,
- (3) Location of the "Feldwache" (picket) and the company as well as the nearest route thereto,
- (4) Terrain areas to be especially watched (visible road stretches, defiles, bridges which the enemy must use during his approach),
- (5) conduct if the enemy attacks,
- (6) Kind of communication with adjacent posts and transmission of messages, and
- (7) Otherwise necessary instructions and the designation of our own "Feldposten" (1,2,3 etc.)

The "Feldposten" should, if possible, be given a sketch of the terrain, with sketch to include the various towns and important points.

227. Generally the force commander (Truppenfuhrer) states the mission of the outpost. Simultaneously he can direct which terrain will be occupied by the outpost, often also its forward line of resistance, the connection within the outpost and with adjacent outposts and the conduct in case of hostile attack. Against an attack the outpost either defends in place or executes delaying action, retiring in a prescribed direction.

Under some conditions it may be suitable to lay out a position behind the outpost line, have this position occupied by a portion of the main force. This position, if necessary, is used as a rallying area or assembly area for the retiring outpost (Aufnahmestellung).

228. Ordinarily the battle outpost is established by the Infantry units nearest the enemy. The outpost troops remain attached, normally to their own unit.

Outposts which are at considerable distance from the main (resting) force and which come from several units may be placed under one command.

Outposts may be reinforced by supporting artillery or in special instances by attached artillery. The reinforcements of outposts by a portion of the division tank defense battalion is also to be recommended.

The signal communications to the outpost and within the outpost is a concern of the outpost troops.

Especially when no immediate enemy contact is expected, generally the instructions concerning orders, organization etc., and conduct of the outpost are applicable to battle outposts.

229. Battle outposts provide close security and are responsible for the maintenance of contact once gained with the enemy. They execute battle reconnaissance in accordance with the orders given them.

Should we have forces in front of the outpost, orders must specify whether or not they shall be attached to the outpost and also must indicate their sphere of activity with respect to the outpost.

230. Should the outpost be established during darkness it may be advisable to occupy initially only easily reached points and during daylight to extend and fully develop the outpost system.

231. Should a pause or interruption in the battle take place, troops nearest the enemy should endeavor to secure their positions by means of outposts. These consist mainly of cossack posts, patrols, and standing patrols which are pushed as close to the enemy as possible or are left in contact with him.

232. As to special considerations for battle outposts in defense and delaying action see pars. 457 and 488.

#### Security in Movement Security on the March.

233. Large march columns, moving during daylight, and which must reckon with hostile air reconnaissance and attacks, must if possible be protected by anti-aircraft troops and if necessary by pursuit (attack) aviation. The first consideration must be given the protection for the formation of the march columns, the beginning and completion of the march, the crossing of streams and water courses, the passage of defiles and rests.

When the road net permits, the A.A. units should be assigned special routes (unused by other troops). Frequently A. A. batteries cover two roads from one firing position. Machine gun A.A. companies and motorized A.A. batteries\* may be sent forward to protect points which are threatened by low flying airplane attack. Should the A.A. units not have special routes, the regulating of their movement over the route common to all troops may be necessary. As a rule A.A. units have precedence at road crossings and at defiles.

Air defense troops support the patrol and warning service of the command. A.A. batteries warn by means of their fire and shell bursts.

234. Should the air situation be tense but battle contact with the hostile force not expected, the troops are distributed upon all available roads and streets. Should time not be important, the march may be extended over a greater length of time and the troops advanced in small groups, with a specified time interval between each.

235. Should the force accomplish a day's march as a unit, the effect of hostile air attack can be lessened by extending the column (Fliegermarschtiefe) (i.e. allow an element that normally occupies 2000 meters road space, 4000 meters), provided such extension is not prohibited by other factors. "Fliegermarschtiefe" permits each element double the normal road space. A decrease in the depth of the "Fliegermarschtiefe" must be ordered.

Each unit distributes itself within its "air defense march depth" in accordance with the orders of its commander and makes known its beginning and its end. Horse drawn troops trains and horsedrawn elements of the service trains conduct themselves similarly if their march is made during daylight.

The higher commander (division) orders the assumption or abandoning of the "air defense march depth". At the same time he directs whether the security distances shall be maintained, lessened or given up.

The "air defense march column" is taken at the beginning of the march. In short columns it can be assumed during the march. When tactical reasons demand, it may be foregone. Halts and rests are utilized to facilitate the distribution or separation of the troops.

236. "Fliegermarschbreite" (air defense march breadth) is another means of protecting troops during a daylight march.

The establishment of "air defense march breadth" presupposes that sufficient parallel routes exist or that the troops can march across country.

"Air defense march breadth" is secured by the distribution of the troops on roads or routes adjacent, on one or both sides, to the main march route. Mounted troops are preferably assigned the longer routes. Vehicles and vehicle elements are assigned routes. The main march road can be utilized by vehicles; other troops should march along other routes. If necessary, boundaries are assigned to avoid confusion. The march sequence of units remains as though the march were made in one column. Should danger of troops accumulation at any point arise, the troops following should be notified promptly.

\*) 3.7 cm batteries and 2 cm M.G.'s.

The march column commander orders the assumption and the abandoning of the "air defense march breadth", or he may authorize the commanders of elements of the march column to use their discretion in this matter. Should time be the most unimportant element, every commander is authorized to order "air defense march breadth."

The establishment of an "air defense march breadth" in great depth is ordinarily not possible. It leads as a rule to congestion and delays. March in "air defense march breadth" decelerates the forward movements, makes it irregular, increases the strenuousness of the march and makes more difficult the leadership. Therefore its assumption is exceptional and when assumed should be given up as soon as possible.

237. If the troops march in "air defense march column", seldom is the simultaneous assumption of an "air defense breadth" to be undertaken. "Air defense march depth and breadth" are not applicable to motorized units.

238. Should a large mixed command, larger than a reinforced regiment, be marched along one road and be threatened by air attack, it may be separated into several march groups which follow one another at distances of one to three kilometers. The senior commander regulates their forward movement. He may direct "air defense march depth" for one or more march groups provided the entire column length remains within allowable limits. Should the entire march depth exceed a day's march, it is preferable, when all conditions permit, to allow the individual march groups to march at different times.

The assumption of "air defense march breadth" within the march groups depends upon the authority therefor granted by the senior commander.

239. At night A.A. protection is limited to the protection of defiles, bridges and ferrying by means of A.A. troops, in conjunction with search lights.

"Air defense march depth and breadth" as a rule are not employed at night.

240. A.A. protection of a march through defiles over bridges or on ferries should be established before the arrival of the mass of the troops.

A.A. protective measures at defiles depend upon the kind of defile. The measures at short defiles, bridges and at ferrying areas are similar.

An air attack against bridges or crossing areas is ordinarily also concerned with the nearby terrain. Therefore, should the troops approaching a bridge be not in "air defense march depth", small units should be formed, and these small units should be maintained for a certain time after crossing. The orders therefore must be given sufficiently early in order to avoid delays and halts. Ferrying is best executed by crossing simultaneously at several areas. Troop accumulation or massing near the banks is to be avoided. A.A. troops should be employed on both banks. It may be necessary to establish a single communication net for the patrol and warning service. For this purpose the division signal battalion is pushed forward.

Should an air attack against a bridge or crossing area be imminent, the march across the bridge or the ferrying operation may be temporarily suspended. As a rule bridge crossings and ferrying are not interrupted upon the appearance of individual planes.

241. As a rule a march by day is continued if hostile reconnaissance planes appear. "Air guards" warn of approaching low flying hostile planes or of a probable attack. The signal "Fliegeralarm" (five short blasts) is given on orders of company and other commanders.

Upon the sounding of the "Fliegeralarm" foot troops seek cover in ditches and depressions along the road. Vehicles and cavalry halt on the road, riders dismount, brakes are set. Only when the warning is sufficiently early and in favorable terrain do these seek concealment off the road. Riders and cavalry do not block the center of the road. Utilizing concealment, cavalry, including its vehicles, continues the march as soon as possible. Those weapons designated for defense against low flying attacks immediately go into position and open fire. Individual riflemen do not participate in the fire. Gas defense measures may be essential.

High flying attacks against march columns are normally to be expected only at defiles. "Air guards" warn of the approach. The signal "Fliegeralarm" is given by company and other commanders. The troops conduct themselves similarly as against low flying attacks. As a rule only A.A. batteries fire against the hostile planes.

At night hostile planes attack as a rule only with the aid of flares; these warn the troops. The signal "Fliegeralarm" is given by company and other commanders. Foot troops seek concealment by throwing themselves down along the side of the road. Other troops halt and remain motionless. Any movement betrays the location of the troops. Defense is executed only by air defense troops.

The march, following the air attack, is resumed upon order of the commander of the unit concerned.

When the order for the march is given the commander can decide whether or not the signal "Fliegeralarm" may be given.

Troops transported in trucks conduct themselves in accordance with section LXII.

242. Should a night march prolong itself into daylight, it may be necessary to order a rest before daylight, in order to provide the necessary security against air and ground hostile forces.

243. First of all, the infantry division secures itself against ground hostile forces by means of the division reconnaissance battalion. See paragraphs 169 and 170.

The division commander may hold at his disposal elements of the reconnaissance battalion. Yet he should not unduly weaken it.

Should there be no reconnaissance battalion in front or on an open flank, reconnaissance must be served by other means.

244. In the terrain between the division reconnaissance battalion and the advance guard, the advance guard must frontally and on the flanks reconnoiter, secure and screen the advance. The mounted troops employed as mounted points as well as those used to execute reconnaissance and security missions are taken from the mounted platoons or infantry regimental elements. The march column commanders and commander of the whole force equalizes, if necessary, the distribution of these mounted troops. In order to occupy important points, to hold open defiles, to place obstacles or to remove obstacles, bicyclists, machine gun accompanying platoons (four Horse) tank defense guns, mounted troops, artillery, engineers and degassing units may be sent out in advance. In accordance with the importance of the task

and the troops required, the force sent out ahead and its composition are determined by the advance guard commander, the march column commander, or the commander of the whole force. Since the primary mission of the reconnaissance battalion is reconnaissance, only in exceptional circumstances will it be employed on the above missions.

245. The advance guard must provide for the unhindered advance of the main body. It pushes aside weak resistance, it protects the marching troops from surprise attacks from the march direction. Upon meeting the enemy it must provide the main body time and space for its battle preparations and retain for the commander his freedom of decision and action.

Under some conditions the advance guard must break through previously unforeseen resistance and hold stubbornly important terrain points it has secured.

Should hostile contact be expected, march column commanders remain with their advance guards. As to the location of the division commander see par. 113.

246. The distance between advance guard and main body must be (1) sufficiently great so that the main body is not immediately involved in an advance guard combat, (2) not too great to prevent the timely employment of the main body. Intentions, strength, terrain and visibility conditions must also be considered. In general, the distance between advance guard and main body vary between two and six kilometers. During darkness, weather of low visibility, terrain in which observation is poor or with small advance guards, the distance may be decreased.

247. The strength and composition of the advance guard are determined by the situation, the intention, the terrain, observation and the strength of the whole column.

The advance guard should be held to the minimum strength, the Infantry strength of the advance guard varying between one-third and one-sixth of less of the entire infantry strength. Elements of the division Tank defense battalion, light artillery and engineers may be attached. Also armored cars, light artillery columns or elements thereof, and de-gassing troops may be attached. For the march individual heavy batteries (especially flat trajectory) and horse drawn or motorized telephone, radio and "Blinker light" units of the division signal battalion are suitably given the advance guard. The addition of a bridge column or a portion thereof is advisable if its use can be foreseen or is expected. See par. 289 as to motor vehicles.

As a rule an advance guard marching at night will consist only of Infantry with its heavy weapons and engineers. Mounted troops follow several hundred meters behind the advance guard unless it be preferable to distribute them in the main body (Note: each regiment has a mounted platoon about 48 men). If a night march is extended under security of troops which have been previously sent forward, normally a small infantry force suffices as security. A march under fog conditions is conducted similarly to one made at night.

248. The advance guard commander organizes his advance guard in accordance with the situation, his mission, the terrain, the visibility and observation conditions, and its strength. It is organized into a "Haupttrupp" (reserve) and a "Vortrupp" (support) and perhaps with attached more rapidly moving units.

The mass of the infantry and the other arms of the advance guard march as the "Haupttrupp". A portion of the Infantry and Engineers constitute the "Vortrupp". Corresponding to their employment horse-drawn

elements of the division signal battalion are included in the advance guard.

The distance (for security) between "Haupttrupp" and "Vortrupp" is normally between 1500 and 2000 meters. A strong "Vortrupp" will send out a point company, at a distance of 1000 to 1500 meters in advance of the "Vortrupp" (support).

An infantry point, consisting of perhaps an officer and one or more groups (16 men) precedes the "Vortrupp" or "point company" and forward of the infantry point marches by bounds, from one O.P. to the next, a mounted point, normally consisting of one group (16 riders). The assignment of tank defense guns and wireless means of communication, especially "Blinker" troops, to the most advanced elements is important.

The smaller elements regulate their march on the larger.

For connection see par. 302.

249. Flank security during the march is performed primarily by patrols. March columns on an open flank take over the flank security of adjacent columns. Should patrols not suffice, flank guards are employed. Ordinarily flank guards are directed, when necessary, in the march orders. In exceptional instances, they may be sent out during the march by either the advance guard or the main body. When such occurs infantry sent on a flank guard mission should be notified early and sent out early since normally flank guards must traverse a longer route.

The threat and the terrain determine the strength and organization of flank guards. They must continually reconnoiter and have always rapid means of communication with the main force. Flank guards must provide their own security, not only frontally, but also to the flank and often to the rear.

Flank guards either accompany the marching columns which they protect or take a position to cover the advance and later rejoin the rear of the column.

Should an advance develop into a flank march it may be suitable to employ the advance guard as flank guard and constitute a new advance guard from the main body.

Should a strong threat develop against a flank we can provide a developed force against this threat by turning off toward the flank, elements of the march column. Every such element provides its own security.

250. Defense against armored vehicles is facilitated by reconnaissance and early warnings. Motorized units are especially capable of reporting early. Warnings of the approach of armored vehicles is given first to the threatened troops or to the commander of the march column by means of signals, messengers, or radio. This matter is regulated before the march is begun.

Tank defense guns are to be assigned the march columns, and especially to those on an open flank, and above all else, after the flanks are provided for, should they be located at the beginning and end of the march columns. Roads leading into the flank of the march or from the rear can be blocked by engineers or the troops themselves by mines or other means. Specified armored vehicles, designated for defensive purposes, travel along the route of march, either in front or behind the march columns, or on parallel roads.

As soon as an armored vehicle attack is recognized, all anti-tank weapons are made ready for action, foot troops take cover upon command of their commander, mounted troops and troops on vehicles endeavor to leave the roads in small groups. If this is not possible, they halt, dismount and block the roads in the hostile directions, using vehicles and other means, and defend the obstacles. Some remain with the animals and vehicles.

Normally the lower commanders must independently give the order to open fire.

251. Disturbance of the march by hostile artillery fire along the route of march can be met by leaving the route of march or by deployment. A.A. batteries should be employed early to combat artillery observation planes. If our own air observation is possible, we must bring into action quickly long range flat trajectory weapons (10 cm cannon).

In terrain in which observation is not good, weak hostile forces normally are most quickly pushed aside by the infantry advance guard partially deploying and employing its heavy weapons. If necessary the advance guard artillery is employed near the route of march. Tanks can quickly break through this sort of resistance (weak hostile).

In open terrain or when crossing broad terrain sectors often and when necessary the artillery must protect the march. The fire readiness of the protecting artillery must be expedited by all means available. Nevertheless sometimes a slackening of the speed of advance must be made in order to secure adequate artillery protection.

Commanders of march columns employ the artillery batteries which have been attached to them.

In a march on several roads the commander (Truppenfuhrer) employs the artillery immediately under his command, except the heavy flat trajectory artillery, for protection, only if the artillery attached to the march columns should be relieved of this protecting mission.

All commanders are responsible that artillery employed for march protection is prepared to participate in the battle.

252. The rear guard secures the main body against surprise and provides for its rest. It cannot expect support from the main body. According to this principle, the strength and composition of the rear guard are proportioned. Rear guards are composed of infantry, bicyclists, strong artillery including long range flat trajectory weapons, tank defense weapons, signal troops with wireless equipment and, if necessary, troops to remove wire lines, engineers with equipment to prepare obstacles, destroy bridges etc. Tanks may be included. It may be suitable to attach smoke and chemical troops. Several rear guards may be under one commander, adequate signal and communications means are presupposed. The division reconnaissance battalion is directly under the command of the rear guards, unless it is attached to one of these.

Rear guards move rearward by bounds. Delays on the part of the main body must be expected. The distance between rear guard and main body is dependent upon (1) probable delays of the main body and (2) the mission.

On the march the rear guard is organized as reserve and support with more mobile troops employed simultaneously as in the advance guard. Their reconnaissance agencies maintain contact with the main body. A strong rear guard may also have a "rear point company", following which is the infantry point and the mounted point.

In a march to the rear the essential for the main body is the quick gaining of distances. For this purpose all available roads are used.

253. Likewise rear guards may be employed in an advance, if attack or annoyance from the rear can be expected. Often weak infantry elements, especially heavy machine guns and tank defense weapons will suffice. Artillery may be necessary.

254. During rests the terrain is so utilized and the troops so distributed as to minimize to the utmost the observation and effectiveness of hostile air reconnaissance. The higher commander arranges for the protection to be given by air defense troops. In addition every unit secures itself against an air threat. Observers warn of the approach of hostile fliers. The troops take advantage of all cover and remain quiet. Each group at rest provides "air guards".

Should a hostile low-flying or high-flying attack be recognized the "air guard" gives the warning ("Fliegeralarm"). Everyone who has not some particular duty to perform seeks immediately the nearest cover. Weapons to be employed against the attacker open fire as he comes within range. The commander of the "rest group" directs when normal activity shall be resumed. If necessary, at the beginning of a rest the commanders of "rest groups" issue supplementary orders concerning the air threat and alarms to be given.

Against an enemy on the ground the troops are secured as indicated in the section "Security during the rest".

Reconnaissance must be maintained during the rest.

#### Security through Deployment before the Battle.

255. A marching force which expects early encounter with the enemy increases by deployment its readiness for battle and thereby secures its approach more effectively.

An advance guard can be employed to protect the deployment of the remainder of the force. Should the advance guard cease to function as an advance guard during the deployment, its tasks are assigned in keeping with those of the whole force. As a rule the order for the deployment will annul any special march troop disposition.

256. In addition to the commander's intention, the distance from the enemy, and his readiness for battle, the terrain and visibility conditions are of influence upon the time, the area and the kind of deployment.

Deployment decelerates the forward movements.

Open terrain, favorable observation by the enemy, long range fire and strong air threats may necessitate earlier deployment.

On the other hand, the situation may demand the continuation of march in original formation without consideration of losses. In such instances, areas under hostile observation or fire must be avoided by short detours.

257. An advance in several columns can accelerate the deployment and provide the commander with the opportunity of securing early the terrain necessary for the engagement and, under certain conditions to effect an encirclement of the hostile flank.

However, the force ordinarily must be drawn together for the battle. This must early be ordered by the commander before the individual commanders have committed themselves. At the same time the commander will, when necessary for the execution of his intentions, order an organization in depth.

258. If the commander is unable in his deployment order to assign battle missions, nevertheless he orders the direction and objective of the further advance, the battle reconnaissances, the boundaries between adjacent units, the protection to be provided by the artillery and other weapons for the deployment, and the location of the special units.

A reconnaissance battalion in front of the division receives orders for its conduct in accordance with Par. 175.

259. As a rule the division signal battalion receives an order to establish wire communication to the forward infantry regiments or to the individual march columns. As the deployment continues, the communication is maintained and the artillery net is begun. It is to be recommended that the lines be so laid as to serve the maximum time for the engagement. The division trunk line remains set up to the rear; forward it serves to connect an infantry regiment. (Note: The division trunk line (Stammleitung) is the main rear to front communication line of the division, which on the march is laid along the road or street upon which the main column and the division commander marches. In the division (signal battalion) there are approximately 370 kilometers of wire line). Special observation points for the division commander, away from the trunk line, are connected by side lines. Should great demands be made on the signal battalion for erection and maintenance of the rearward net and thereby it be unable to provide direct wire communication between the infantry regiments and the division commander, the regiments will connect themselves at indicated points (centrals) of the main trunk line. All available troops of the signal battalion are to be employed to construct the signal net for the engagement. The construction of lateral lines saves long rearward lines when the division commander changes his C.P. Blinker and lamp signals serve as a complement to the wire communication in suitable terrain.

The timely employment of the signal troops facilitates the construction and is the basis for the adequate erection of the battle net.

260. Should it be necessary to deploy during darkness, security troops must be forward and as near the enemy as possible. The troops must be advanced by bounds and protected by security forces. In a deployment during darkness, the utilization of roads and trails is of great advantage. Under some conditions the routes of advance must be reconnoitered and marked beforehand. If necessary, artillery protects the deployment. It must either go into position before darkness or preparations must have been made for night fire support.

All leaders must be easily found, means for the maintenance of communication must be reinforced.

#### Screening - Counter Reconnaissance.

261. Screening of the assembly and movements of the army must ordinarily be provided on all sides against hostile air reconnaissance. Against a ground enemy screening is necessary to the front and flanks and is executed either offensively or defensively.

The later the screening is recognized as such by the enemy, the more effectively it fulfills its mission.

262. Screening in the air is a matter for the air force. For limited periods it can be secured by the employment of pursuit and bomber aviation against hostile airdromes. If we have only weak pursuit units we must content ourselves with combatting the hostile air reconnaissance. Should A.A. troops be available for employment and be employed, we must consider that the enemy will regard the area in which they are active as an area of considerable importance.

The screening against the air enemy demands careful camouflage on the ground, at every opportunity, greater dispersal of units, and the utilization of night movements.

263. Offensive counter reconnaissance is the task primarily of army cavalry. It must endeavor to prevent the enemy reaching the elements being screened. Moreover, the hostile reconnaissance must be attacked and driven back.

264. Defensive screening is effective when the terrain is such as to confine hostile reconnaissance to few approaches. These can be blocked and the obstacles etc., be employed in defense against the enemy. It is to be recommended that stronger forces be located further to the rear and at favorable points, prepared to counter break through attempts. Sure and rapid communication within the screen and to the commander must be provided. Reconnaissance elements should be sent far to the front to reconnoiter the enemy.

Likewise for defensive screening is army cavalry most suitable.

Screening by infantry is required in terrain which limits or forbids the activity of army cavalry. Depending on the conditions, the infantry is to be reinforced by other arms.

Terrain poisoning, especially if it is possible in great depth, can considerably strengthen the defensive screen. Even with a shortage of gassing material, the poisoning of areas, lying at distances well apart, but effectively chosen, can considerably aid the screening operations.

Dummy works are also of value.

265. The hostile message and signal traffic must be tapped in every way possible.

266. Signal troops contribute primarily to the screening operations through the kind of employment of their wireless means. They can accomplish this by interfering with the hostile radio system, by refraining from using their own wireless. They keep secret and watch over our own signal traffic and by other technical means--and by deceptive traffic aid the general screening operations.

267. In addition to its own distinct mission, screening serves through the measures instituted to support the execution of numerous other missions.

#### V. March

268. The greater portion of the war activity of troops consists in marching. Upon proper execution of marches and the march capabilities of troops lies essentially the success of all undertakings.

269. The march ability of a force is impaired if the elements are not equally well trained and accustomed to exertion. Therefore from the beginning of the war every opportunity must be utilized to train troops in

marching. This is especially applicable to foot troops, to whom the new foot gear may initially cause difficulty.

270. Properly considered increases of march distances, proper rests and adjustment periods, strict march discipline, care of the feet, maintenance of clothing and equipment, of saddles, animal equipment and shoeing, care of the health and adequate and wholesome rations are the most effective means of securing and increasing march capabilities. The falling out of men with sore feet and of animals with sore backs or which are lame indicates the care which should be given both men and animals.

Continuous observation of foot troops, animals and riders, drivers and vehicles on the march, timely relief for men and beast requiring relief, appropriate assistance during rests and in bivouac are matters for the company and higher commanders. Timely changes from and to the walk, trot and leading in cavalry units must be made in order to more properly for the animals. Such care lessens the troubles arising during a strenuous march.

271. Transportation by vehicles of men's packs and animals' loads affords considerable relief and adds to the march efficiency. The corresponding increase in the number of vehicles limits this procedure to exceptional cases and small commands.

On the other hand, vehicles with the troops, insofar as their carrying capacity permits, should be utilized to transport portions of the equipment of men and horses who are in need of relief.

Ammunition and reserve rations are to be left out of the pack in advance.

272. So long as battle conditions exist, rest days are not to be considered. Therefore everywhere opportunity must be utilized for the recuperation of man and animal, for the care and conditioning of transportation, arms, equipment and clothing.

273. Heat is the greatest enemy of marching troops. The fatigue, which heat imposes upon foot-troops and which thins their ranks in a short while, demands well considered preventive measures.

Therefore, if possible, night marches will be made during extreme heat.

Should day marches be necessary in the hot summer, it is adventurous to provide for rest during the hottest part of the day.

The judicious use of water for drinking is of utmost importance during a march in weather of great heat. It can be given either during short halts or while marching but must be timely and carefully prepared. It is recommended that canteens be filled with cold coffee or tea for the march.

Horses suffer more greatly from lack of water than from lack of food. Adequate watering of a large number of animals is ordinarily only possible during a rest.

274. During cold weather, ears, cheeks, hands and the chin must be protected. Foot troops sling their arms over their shoulders in order to free their hands. They march better without wearing their overcoats. During long halts they put these on. Mounted troops will often dismount and load. The provision frequently of warm food and drink is recommended.

In snow and over smooth ~~ice~~ march speed and capabilities are essentially decreased. Troops marching in front should frequently be relieved. In deep snow it may be necessary to employ vehicles with sled runners or sleighs to break the way for the troops.

The winter equipment of man and beast must be provided early.

275. Insofar as the situation permits, the routes of march must be reconnoitered if any doubt exists as to their usability (repair work, load capacity of bridges, obstacles, heavy snow, etc.) Especially is reconnaissance necessary for motor traffic. Maps are not always reliable as to the road net. Air photographs are a valuable adjunct.

Should there exist the possibility of damaged routes, engineers are sent forward, often with bridging material, or are attached to the advance guard for repair work. It may be suitable to time rests for the periods in which the repair work will probably take place.

276. A night march is more dependent upon reliable maps and roads in good condition than is a day march. Should reconnaissance be impossible or should any doubt exist, locally acquainted guides should be secured, if possible, especially for bad stretches of road and on very dark nights. Night marches, especially of motorized units, often require the placing of signs and careful regulation in order to maintain the coherence of the marching troops.

Night marches, except in very hot weather, tax the strength more than the day marches.

If hostile reconnaissance or observation is probable, there must be no light visible. Otherwise lanterns at the end of each company etc., facilitate the coherence and connection between elements of the march column. If motor vehicles travel without lights, then their speed must be reduced.

Near the enemy quiet is essential.

In order to avoid hostile air reconnaissance, the formation of the march and the entrance into bivouac areas should be executed during darkness. The shorter the night, the less marching time is available and therefore the shorter the marches.

277. Serious situations may demand great march accomplishments and forced marches. It will be well to inform the troops why the forced marches are necessary.

Excessive demands not only diminish the battle strength but the morale of the troops.

278. All regulations for the march are dependent primarily upon whether contact with the ground enemy is in early prospect or not.

When early contact is not expected great consideration can be given the personal comfort of the troops. Considerable relief is provided when units march in small groups or according to arm. Simultaneously is the danger from air attack diminished, on the other hand, should hostile contact be expected soon, considerations as to battle readiness are paramount. These require the formation of units of "mixed arms", choice of a suitable march sequence and security measures.

279. The march of a force of all arms along several good roads is easier on the troops, it accelerates the march and increases the battle readiness in the direction of march. On the other hand, the possibility exists that the commanders of the individual columns will commit themselves not in accord with the desire of the commander and before he is able to intervene. It is also more difficult for him to engage his forces to the flank and quickly to concentrate in one area.

According to the tactical requirements the commander can prevent such danger to his freedom of action either by an echelonment or by directing an advance by bounds. For this purpose he orders the time and place of the departure of the march columns or the time at which their forward elements shall cross a given line.

Changes in echelonment during the march must be balanced by holding back march columns or be equalized during periods of rest.

If an advance is made by bounds, the march columns, if possible, should be provided with instructions prior to their arrival at an intermediate objective stating whether they shall halt or continue to march. In this manner, unnecessary halts are avoided. Rest periods may likewise be utilized for this regulation of advance of bounds.

March column commanders must without further orders inform the commander when march objectives are reached.

280. Communication between the commander and the march columns and between march columns must be secured in every possible way. Difficult terrain, weather of low visibility and night require especially careful measures. The technical radio and light communication between adjacent march columns implies previous regulation. During daylight aviators can often bring the commander quick information of occurrences within individual march columns and as to the arrival at march objectives.

281. Boundaries for the march, security and reconnaissance are given the march columns.

282. The commander has his force more securely in his own hands and retains greater freedom of decision when his command marches in one column.

The larger the "mixed command" marching on one end, the more are the demands placed upon the troops for the accomplishment of a specified march.

The greater the column length, the greater is the danger from air attack and the longer is the time required for concentration.

283. A night march secures the marching troops against ground observation, and under favorable conditions. Air attacks at night are difficult. Night marches are therefore an important means of surprising the enemy and are of particular value when the enemy has air superiority.

Should troops gain contact with the enemy by daybreak and after a night march, generally a short rest is advantageous in order to restore the troops and to bring them in better condition against the enemy.

284. The total strength, the bivouac areas, intended composition of the forces and march sequence, as well as special tactical consideration determine the manner in which the march columns are formed.

All troops should be moved in the march direction; detours and cross traffic should be avoided. Troops should not be alerted or put in march earlier than is necessary.

Considering the activity of hostile combat aviation, large masses of troops should not be assembled in one area before the march.

If various units must march from the same point, they should arrive sequentially, so that no unit has to wait unnecessarily and crowding is avoided.

Generally it is better to have the various units, dependent upon their bivouac area and their intended location in the column brought by way of side or intersecting roads to the route of march and there join the column. Had the troops been brought into bivouacs in bivouac groups, the commander thereof can well be charged with their proper arrival at the route of march and their proper attachment to the column.

Should march columns be formed under the protection of outposts, these must be timely brought into the march column.

285. The hour of march depends on the situation, the length of the march, the weather and other conditions. Insufficient rest impairs the capabilities of the troops.

It may be of great importance to complete all movements of a night march during the hours of darkness.

It should be noted that it is ordinarily better, for a daylight march, to leave the old area before daybreak than to arrive in the new after dark. Troops with animals and motorized units must ordinarily have about two hours preparation for the march and at the completion of the march they begin their rest later than do foot troops. The hurried feeding and care of animals and inadequate care of vehicles lessens the work capacity of both.

286. The "march sequence" determines the location of the troops in the column. This in turn is based upon the probable battle employment. Correct "march sequence" is one of the first steps toward battle success.

287. The march sequence of security detachments (advance guards etc.) is ordinarily decided by the commanders thereof. Yet, in order to simplify the promulgation of orders, the march column commander may order the sequence of march of these detachments.

The march column commander designates the march sequence of the main body, who is charged with the proper and timely entry of the various elements into the column and coherence within the column during the march. He provides for continuous communication with the advance guard and the necessary flank protection and guards. Should he absent himself from the main body he designates a representative during his absence. When the march relationship ceases, the commander of the main body reverts to his original status (unit commander of his own unit).

Should the main body be larger than a reinforced Infantry regiment, it may be distributed in depth in several march groups.

288. When an infantry division advances along several routes, normally an infantry element marches at the head of each main body. It is here that the commander of the main body normally marches (at or near head of main body). With the march column with which the division commander advances, there will normally be found the now motorized elements of the division command echelon and of the artillery command echelon which are essential to the conduct of battle; also the horse-drawn elements of the division signal battalion, which are not with the advance guard.

The light and heavy horse-drawn artillery and engineers which are not with the advance guard are kept as far forward as their employment requires. According to these requirements the location of the remainder of the infantry is determined. The horse-drawn platoon of the medical company follows in the column in which the division command echelon marches. The light horse-drawn columns follow normally their own units. The horse-drawn elements of the bridge column can follow when they are neither with the advance guard or are not later to be advanced. Tank defense guns of the units and machine gun units with antiaircraft missions normally are distributed within the march columns.

When the division marches along one road similar measures are taken.

In a retirement the march sequence of the main body will often be in reverse order.

The same principles apply to the main bodies of cavalry columns of army cavalry.

289. Insofar as they are not employed on reconnaissance or security missions or do not belong to the advance guard, the motorized elements of the division are organized into one or more motor echelons and follow by bounds the march columns. When the situation and the road net permit, they can be grouped wholly or partly as a motorized march column and march along a special road. Should contact with the enemy be expected, only motorized elements capable of combat can be so grouped on a special or individual route.

The movement of motorized echelons and march groups can be changed to the commanders of columns along whose routes they march. Motorized march columns remain directly under the command of the division commander.

The commander of a motorized echelon or motorized march group has the same tasks during a march as does the commander of a main body, the commander of the motorized march column, according to the conditions, tasks similar to those of the commander of the remaining march columns of the division. Similar measures to those given in paragraphs 286 - 288 apply to the march sequence of motorized echelons, march groups and march columns.

Those motorized elements belonging to the advance guard always, motor vehicles of the staff often, special motorized elements, such as motorized elements of the artillery, etc., exceptionally and then only temporarily march between the advance guard and the main body.

290. The combat trains of battalions, cavalry regiments, artillery battalions, etc., march as a unit with their troops; those belonging to the command elements and staff are attached to those of a unit or are independently formed in the march column. The combat trains of the forward elements of advance guards march with the reserve of the advance guard. Detached companies etc., normally take their combat trains with them. Motorized and mounted reconnaissance battalions normally independently control their combat trains and if possible have the trains accompany them. If circumstances require, they must temporarily be separated from their combat trains. In such instances the commander can direct their attachment to another unit.

291. During the march of an infantry division, the division signal battalion normally lays a trunk line. Before the march begins, it is laid as far forward as the situation permits. The leading constructing troops march approximately with the support of the advance guard. At important points, centrals are to be established. The troops are informed of their location in the march order.

In a march along several roads the trunk line is normally laid along the route of the division commander and his staff.

In a retirement before an enemy, trunk lines no longer of use are either destroyed or taken up.

In addition to the construction of the trunk line, both in advance and retirement, the division signal battalion must have radio communication always ready both to the rear and to the flank; that to advance elements will be regulated according to conditions.

As to signal communications with army cavalry on the march see par. 724.

292. The estimate as to the extent of the march and the marching time forms an essential basis for the march orders. The distance to be covered by each unit from old bivouac to new bivouac must be considered.

As to march speed and capabilities see appendix.

A march off roads, that is cross country lessens the speed of large units with foot troops 2 to 3 kilometers per hours.

On good roads foot troops and cavalry can march almost as fast by night as by day, on poor roads and very dark nights, the speed is considerably diminished.

Bicyclists and motorized troops march more slowly at night.

293. If possible a warning order is issued for the march. This order states the time and place of departure, the route and probable march duration. It contains instructions concerning the bringing of troops to the route of march and their joining the column.

294. Should corps or army troops or larger independent units follow along the route of the division, provisions must be made to avoid friction between the division trains and service elements and these following units.

295. Should large "mixed commands" make marches of several days duration, during which no enemy contact is expected, a march table can be prepared. It contains information as to the routes, the daily march objective, bivouacs and staff quarters.

296. Unless special conditions exist, as soon as the command "Rest" is given, troops may talk, sing and smoke.

Higher commanders who ride past the troops are honored with "Eyes right"; troops come to "shoulder arms" only on command. Other courtesies are not extended.

297. Only upon order will collars be unbuttoned, helmets removed etc. Should such be necessary it will be timely ordered.

298. All troops march in their "order of march".

299. One side of the road, and if troops march on either side, the center of the road must be kept free for the passage of order and messenger carriers. Motor vehicles are forbidden to pass troops rapidly.

In general troops march on the right side of the road but should the left be more favorable for the troops or should it provide concealment against hostile air observation it is used. Should both sides provide concealment against air observation, foot and cavalry troops, if necessary, use by day both sides. Vehicles, motor and animal drawn, and bicyclists use the most favorable side.

Also when roads are not plentiful and during hot weather it may be advantageous to march on either side and hold the center free of the marching troops.

Dusty roads are to be avoided.

When troops pass others, those being passed provide adequate room by giving way to one or both sides. During halts the road should be cleared.

300. All elements of a march column must maintain their proper distances and not straggle. A uniform march rate must be maintained in order to prevent tiring halts and to avoid the fatiguing hurry on the part of the rearward elements.

301. In order to accommodate the small variations in the march depth of individual elements, small "march distances" are to be taken between companies etc. These amount to 10 meters for foot troops, for cavalry and vehicle troops and staffs, fifteen meters.

"March distances" cease to exist when "Fliegermarschtiefe" (march depth as protection against air attacks) is taken up.

Mounted officers, individual horses, etc., are to be considered as part of the troops and not as occupying the "march distance". The "march distance" serves the purpose of equalizing temporary delays; therefore it may be temporarily lost.

For "march distances" between motorized units see section XXII (secret).

302. Between the various elements of the march column communication is maintained by means of mounted troops, bicyclists, or motorized troops, for shorter distance by dismounted connecting files. In difficult situations officers are charged with the maintenance of contact. At night, during weather of low visibility or in rugged terrain, the number of connecting elements is increased. The commander of the larger unit is always responsible for connection with the smaller, yet when difficulties arise or are probable, the smaller must support the efforts of the larger. Every unit is responsible that the one succeeding follows the proper route. When elements are withdrawn from the column, the units following that from which the elements were taken, must be informed by the commander who ordered the withdrawal. It is often advisable to leave guides or parties at important points who indicate the route to following units, messengers, stragglers etc., and who bring forward signs etc.

Radio and blinker communication may be directed between advance guard and main body.

303. In addition to a short halt soon after the march is begun (for the adjustment of packs and equipment and relief of men and animals) one or more halts, depending on the distance to be covered, the weather, the capabilities of the troops and the terrain, are made and which are utilized for the feeding and watering of men and animals. A rest (three hours) is normally taken after the greater portion of the march has been made. Often a rest is taken every two hours. During night marches a short rest every hour is often preferable. The time and duration of the rest are stipulated, when possible, in the march order. A rest in which horses are fed and watered, at which time saddles and equipment are removed, should not be less than two hours. When the march is made along several routes the time, place and duration of rests may be left to the discretion of each column commander.

Even when haste is required, on long marches adequate rest must be provided so that the troops arrive in front of the enemy "fit for action". The omission of timely and sufficient rest periods places a heavy responsibility on the commander. Only when it becomes absolutely essential to reach the battle field or decision point with but a fraction of the force will all considerations as to the physical condition of the troops become of secondary importance.

304. By day, during rests troops will be distributed by groups and camouflaged (concealed) near the route of march. During long rest troops will normally rest in "rest groups". Such a formation can be serviceable for the better utilization of water sources, it can increase the readiness for battle, and can make easier the continuation of the march for rearward troops.

Troops rest at night along the road.

Rest areas are to be reconnoitered in advance. Their choice should be governed, apart from march technic and technical considerations, especially in regard to an air for, by a consideration of the following factors: time of the year, weather, time of day, need of water, shade, or cover against wind and rain, snow and cold, the comfort and protection of the troops and the peculiar needs of the various arms.

305. Unless spoken to or called, troops while resting remain resting when a senior commander approaches.

306. The commander directs the sequence and if necessary the distances to be maintained in crossing a military bridge. Vehicles whose weight are too great for the bridge are to be "cut out" and conducted over a suitable bridge or crossed by ferry.

307. The bridge commandant is responsible for the security of the bridge, for quiet and order on the bridges and the approaches and exit routes therefrom. All instructions issued by him and the engineer officer at the bridge must be obeyed.

308. Troops and vehicles are not permitted to crowd near the bridge. Bridge approaches and exits must not be jammed. The march over the bridge must not halt thereon. Ordinarily, troops will, from assembly points, be directed to cross by units as the bridge is free.

309. Every unit will take the necessary march formation at least 100 meters before reaching the bridge and will maintain this formation until the tail of the unit is at least 100 meters beyond the bridge.

310. Foot troops cross in route step and in the manner directed. Mounted troops, dismounted, cross by twos, the men on the outside. Mounted troops which have crossed decrease their gait so that the animals still crossing will not become disquieted. Horse-drawn units and single vehicles hold to the middle of the bridge, drivers remain mounted, assistants place themselves on either side the animals, brakes are engaged.

Motor vehicles travel slowly, holding to the center of the bridge and maintain the distance between vehicles required by the type and strength of the bridge.

The carrying of the military bridge is to be made known promptly to the troops. It will also be indicated on the signs pointing the route to the bridge and on signs at the bridge approach.

311. A command to halt on the bridge is given only by the bridge commandant or the "officer of bridge service". In emergencies, every engineer officer is authorized to give the order.

Should an air attack take place, the bridge is to be evacuated quietly and orderly. Commanders of all grades prevent an increase of the marching route and a joining together of the troops.

312. During the crossing only engineers of the bridge service are authorized to cross the bridge in the opposite direction. The "officer of bridge service" may make exceptions.

Military bridges which are to be used simultaneously for traffic in both directions will be so marked.

313. For foreign operations troops are placed in assembly positions and based upon the carrying capacity of the ferrying means are to be transported over, so far as possible, in tactical units. From the assembly positions they are conducted by engineer officers to the places of crossing.

Conduct during loading, unloading and on the ferrying means to be directed beforehand. The sequence of conduct ordered is to be followed.

The swimming of horses accelerates the ferrying.

## Truppenführung

### First Part

#### VI. Attack

314. The attack is effected through movement, fire, thrusts and through the direction in which it is directed.

The attack can be directed from one direction against the front, but ordinarily the greatest strength is launched against the flank or rear of the enemy. Moreover, an attack can be launched from several directions. With a break through of the hostile front new attack directions are provided.

315. The frontal attack is the most difficult of execution, yet it is the most frequent. Even the troops which are not employed in the frontal attack must ordinarily attack frontally (the enemy having covered his flank).

Against an enemy of equal worth and one who is defensively prepared, the frontal attack is a long, obstinate struggle for superiority. The frontal attack presupposes considerable superiority of forces and means. It leads, as a rule, only to decisive results if the enemy is broken through.

316. The outflanking attack is more efficient than the frontal. Simultaneous outflanking of both enemy flanks presumes considerable superiority. An envelopment of one or both hostile flanks and reaching deep into his rear can lead to the annihilation of the enemy.

The outflanking movement is simplest of execution if the forces intended for the envelopment are employed from a distance, against the hostile flank or wing. It is more difficult to institute the outflanking in proximity to the enemy; the troop movements necessary for the maneuver are, on the battlefield, only possible with favorable terrain or at night.

The envelopment must seek to strike the main hostile forces in a decisive direction. The success of the envelopment is dependent upon the extent the enemy is able to make timely displacement of forces in the threatened direction.

The endeavor to extend the enveloping flank further and further easily leads to over extension and to dispersal of forces. Therefore, in obscure situations, it is better initially to organize the enveloping force in depth.

He who envelops endangers himself to envelopment. The commander must consider the possibilities. Yet, he must not hesitate to weaken the front if thereby the superiority of his enveloping flank can be accomplished.

317. The envelopment presumes the frontal fixation of the enemy.

The enemy is most certainly fixed if his entire front is attacked. However, such an attack demands strong forces, which must be absent from the enveloping wing. Often, therefore, must the attacker be content with limited objective or feint attacks. Occasionally a stronger enemy can be contained, in expectation of decisive attack.

Should the enemy attack from his front, our front defends or executes delaying action. Then can the carrying through of the envelopment bring the greater, but the stopping of the envelopment and the turning of it to counterattack, the surer success.

318. The flank attack results from previous march directions or from flank marches. It is especially effective if it strikes the enemy with surprise and permits him no time for countermeasures. It demands superior mobility and deception of the enemy at other positions.

If the march directions or flank marches make possible exceptional attacks against the hostile rear, great success can be attained if the enemy is surprised and our forces are sufficiently strong.

319. The penetration seeks to destroy the continuity of the hostile front and to envelop the hostile flanks so created. Requirements for its success are: (1) surprise, (2) disposition of the break through forces in the area where the prospects for the attacking infantry are favorable deeper in the enemy's terrain, and (3) strong forces, in order to be able to continue the attack after the break through.

The attack must be launched on a broader front than that intended for the break through, in order to tie and hold down the enemy on either side. The remainder of the hostile front must be contained.

The broader the penetration, the deeper can the penetration wedge be driven. Reserves must be present in order to throw back hostile counterattacks against the flanks of the penetration.

The successful break through must be utilized before hostile countermeasures are instituted. The deeper the attacker advances, the more effective can he envelop and therefore the earlier frustrate the attempts of the enemy to close again his front by withdrawal to the rear.

Therefore a too early change of front is to be avoided.

Strategically, a successful break through can first be utilized by army cavalry and motorized units. These elements are supported by attack and bombardment aviation against reinforced hostile forces.

320. The limited objective attack is made to win only limited success. Ordinarily it is executed where the situation provides expectation of such success. Executed at a favorable area, it can have great effect. It can only serve to detain or fix the enemy.

The execution of a limited objective attack differs in no way from the execution of other attacks. The objective can be placed closer and be striven for with weaker forces, but it can also demand the employment of all forces. With close objectives or light attacks the attacker often can organize without depth.

The attack must be well timed. The troops can go beyond their attack objective only if authorized. The decision for this authorization requires careful consideration.

321. Sometimes it is better to permit the enemy to attack first and then, when he has committed his forces, ourselves to attack. The great difficulty lies in grasping the correct time for our attack; the danger exists that the decision for our attack is not made timely or is not made at all.

322. There is also the consideration that the enemy may accept the attack in order later to attack himself or to withdraw. These possibilities must be considered in the distribution and employment of the forces.

323. Every attack requires coordinate direction; it is not permitted to fall down in individual attacks.

The main force and the mass of the munitions are employed in the decisive area. In an envelopment these forces are placed on the enveloping flank, that is, ordinarily there, where, according to the intention, the sit-

uation and the terrain, the effect of all arms can be utilized for the success of the action. In this area the attack is decisively executed. The decisive attack is distinguished by: (1) narrow zones, (2) provisions for the unified fire of all arms, including that of neighboring zones, (3) the reinforcement of fires by means of especially allotted heavy infantry weapons and artillery. During the execution of the attack fires are increased, tanks and reserves are employed. The choice of the area for decisive action is influenced by the artillery, sometimes by the suitability of the terrain for continued tank operation.

Should the area of decisive action not be known from the first, the decisive action must be fashioned in uncertainty and later changed, if necessary. Otherwise it may not be decided until later. Should success, during the attack, come at a place other than that of which expected or intended, decision should be made to exploit it. Should the decisive front change or the decision be made later as to the decisive front, sufficient reserves must be present and there must be the strong, united, cooperative action of all arms in the new direction.

The shaping of the decisive action must be expressed in the measures taken by individual leaders. It may be expedient to order individual units where they shall execute the decisive action.

324. As a rule, every attack passes through more or less difficult crises up to the culmination; it becomes a question then, that the leader recognize this zenith and that he possess the capability of decision to extent an initiated success with all his means, or to prevent a failure.

325. Should the attack be unable to progress further with its original organization, then by changes in the distribution of forces, or by the employment of new forces and by the rearrangement of fires is the attack resumed. Should this not be possible, it is more correct to suspend or stop the attack than to stake the combat strength of the troops on its further execution.

326. The width of infantry units in attack must correspond to their probable battle uses. The widths of front are dependent on: (1) mission, (2) battle strength, (3) terrain, (4) fire support of all arms, and (5) the probable strength of hostile resistance. As a rule, the zone of an interior battalion lies between 400 and 1000 meters.

As a guide for the zone assigned a mixed group in attack it can be said that, for an infantry division consisting of 3 infantry regiments and adequate (plentiful) artillery, in a meeting engagement and upon terrain favorable for all arms, between 4000 and 5000 meters are normal. Occasionally, through the employment of the forces in groups and the insertion of gaps, the breadth of the zone can be increased. Should the zone be too wide, not only the conduct of the battle, but reinforcement at the decisive area becomes difficult.

The zone of an interior division, making a decisive attack frontally against an enemy in strong position, cannot exceed 3,000 meters, if the attack is to be carried through without relief by fresh troops and a success is to be exploited.

Sometimes it may be necessary to refuse combat in one area in order to decrease the width of the zones and assemble the forces necessary for the attack.

327. The objective determines the direction of the attack. It is stated in the attack order.

By the assignment of zones, the development for, and the execution of, the attack by the adjacent elements are not hindered. These zones likewise bound the battle reconnaissance. The proportions between zones are governed by

the decisive action. It is unnecessary to fill up the whole width of the zone with troops.

Through the assignment of zones unity is procured in the operation of adjacent units, but these units need not inflexibly and anxiously maintain mutual contact.

Battle zones provide the necessary limiting lines for the other arms, and especially the artillery, which support the infantry. But they should not prevent the artillery from utilizing favorable observation and positions in neighboring zones. This also applies to the heavy infantry weapons.

In large units battle zones are determined from the map, in smaller, from the terrain. These zones must extend as deep into enemy territory as it is possible to determine according to the plan of the battle. As the situation develops, changes must be made. Important points should lie within individual zones unless they are to be attacked by several units.

An open flank is ordinarily not bounded. For neighboring, but not immediately adjacent units, frequently a line of separation suffices. Under some circumstances it is sufficient merely to designate the objective.

328. The order for the attack must clearly delineate the intended maneuver. In the assignment of missions proper consideration must be given the relation between the necessary unity of action and the independent action of units. Moreover, the speed and verve of the attack should not be checked by too far reaching orders.

#### Execution of Attacks Bases of the cooperation of the arms.

329. The objective of the combined arms in an attack is to bring the infantry in its decisive action, against the enemy with sufficient fire power and shock action so that it is possible to drive through deeply and break down the final hostile resistance. This goal is first reached when the hostile artillery is taken or is forced to retire.

All arms cooperating in an attack must recognize their mutual capabilities and consider their respective limitations. They require continuous close communication one with another.

330. The cooperation between the attacking infantry and the supporting artillery governs the course of the attack. Full cooperation must exist in time and space throughout the attack.

The support of the artillery extends from the near limit of its effective range. In general, on our side of this minimum artillery range, the infantry must execute the attack with its own weapons alone.

331. The higher (joint) commander is responsible that the artillery support continues in harmony with the infantry attack.

In general, the artillery leader (division artillery officer) should be in close proximity to the division commander.

Should the infantry division have no division artillery officer, the senior artillery commander can establish his command post near that of the division commander, should the situation so require.

The senior commander of artillery of a smaller unit, for example, a reinforced infantry regiment, frequently will have to establish his command post where it is most favorable for the support of the infantry. For this task he requires personal observation of the terrain and sure communication with the infantry he is supporting and with his own artillery.

Ordinarily, because of the rapidly changing situation, the senior artillery commander with Army cavalry, remain with the cavalry commander.

Through personal agreement must the correct action be determined. Where it is possible, the desire of the senior artillery commander must be accepted by the higher commander. Should the command posts of the two be separated, communication must be maintained by technical means and the artillery must provide a liaison officer.

332. Unified fire control increases the effect of artillery fire and makes possible its rapid concentration on decisive areas and at decisive moments.

In the execution of its attack against the hostile infantry, which is distributed broadly and deeply, and which offers targets not so easily recognizable, our infantry needs the cooperation of artillery which can answer readily the needs of the infantry.

As a rule the infantry regiment is supported by an artillery unit, according to conditions, a battalion or a battery, for immediate cooperation. Has the infantry unit an independent mission, this artillery can be attached. Other reasons for attachment are: (1) a battle field with insufficient observation or one very extended in width or (2) other reasons which make the unified control of the artillery impossible. The value of cooperation is enhanced if the same units always work together.

The artillery commander (the senior artillery commander in a unit of combined arms) commands directly (immediately) the artillery assigned for support; but commands the attached artillery through the orders of the unit (all arms) commander, but must previously inform the infantry commander concerned. Also, artillery which is attached to the infantry must remain in communication with the artillery commander.

The unit commander can often prepare the artillery more quickly for other tasks by assigning it position areas.

333. The infantry commander recommends to the supporting artillery the kind of support required. The artillery commander has to meet these recommendations. Should the artillery commander receive simultaneously other missions from the senior artillery commander, he tries to determine which task is first to be executed. In urgent instances he must act upon his own responsibility.

Attached artillery supports the infantry in accordance with the orders of the supported infantry unit commander. A further attachment to smaller infantry elements decreases the first effect of the entire artillery unit. Such assignment should be made only exceptionally and when made the infantry commander must report it to the higher commander.

334. It is the duty of both infantry and artillery to secure their cooperation through mutual established permanent and effective communication. Not only is this communication to be maintained between the commanders but between the infantry furthest advanced, especially the heavy infantry weapons or, as the case may be, their observation points, and the artillery observation points, from which alone often can the terrain for the infantry attack be thoroughly observed.

Report No. 14,507.

The close proximity of artillery and heavy infantry observation posts is to be avoided. The senior commander in the area has often to make a decision thereupon. Normally the artillery gets the observation posts with the greatest observation.

The cooperation and the correct choice of objectives are aided through rapid, correct transmission of observation and designations of objectives between infantry and artillery.

335. Neighboring command posts for both arms make possible a rapid exchange of thoughts. Battery and battalion (artillery) commanders are often confined to certain terrain points for observation and fire control. Sometimes the infantry commanders can place their command posts near these points.

Should the command posts of both arms not be in close proximity, they must be connected by technical means or special personnel.

336. The liaison (communication) detachment of an artillery battalion is ordinarily employed (set in) where the artillery support is most important and where it can be utilized for rapid demands for support from the artillery. Often it is assigned to the infantry battalion which executes the decisive action. Occasionally it can represent the artillery battalion commander at the command post of the infantry regiment. Also, a battery engaged outside of its battalion may find it necessary to send out a liaison unit corresponding to the liaison detachment.

The infantry is under obligation to support the activity of the artillery liaison party. This is completed through the direct communication between the artillery O.P.s or, as the case may be, the advanced artillery O.P.s, and the most advanced infantry elements.

Telephone means of both arms, infantry light signal and air reconnaissance at low elevations are additional means of enhancing the connection between the two arms.

337. The infantry must know: (1) how the artillery is organized, (2) which artillery units support it, (3) where the artillery O.P.s and C.P.s are, (4) and so far as possible, what further artillery O.P.s lie in the infantry zones and (5) what terrain the artillery commands with its observation and fire. This information forms a basis for the employment of the heavy infantry weapons. The infantry must keep the artillery informed of its forward lines, likewise must it inform the artillery of changes in the hostile situation, which are learned through the battle reconnaissance.

The artillery must know where the nearest infantry C.P. and the C.P. of the supported infantry are located and what terrain the infantry commands with its weapons, and it must have constantly information about the most advanced infantry elements and the further infantry plans. Therefore it has the duty, constantly to observe its own and the hostile forward lines.

338. It is through terrestrial observation that the artillery executes most efficient support against the hostile infantry. Moreover, its support is quickest and most reliable if the O.P.s and positions are in rear of the supported infantry, even if the infantry is making a wide envelopment. Where the artillery can deliver no terrestrially observed fire, the infantry must undertake the supporting missions with its own weapons, since map firing by artillery does not suffice for the details of infantry battle.

339. Tanks and infantry which work together ordinarily shall have the same objectives, the hostile artillery. As a rule, tanks are employed where the decisive action is desired.

Report No. 14,507.

Tank attacks follow either the direction of infantry attack or another. The terrain decides the issue. Closely tied to the infantry, the tanks lose the advantage of their speed and under certain circumstances may become sacrifice to the hostile defense. Yet, they are so utilized that they put out of action the hostile arms which are stopping the infantry, and above all the hostile artillery, or they are employed with the infantry to break down the enemy. In the latter instance it is suggested that the tanks be attached to the commander of the infantry in whose zone they attack.

Occasionally can a tank attack augment in the last stage of the infantry attack the artillery support, which has become increasingly difficult, or it can bridge over the artillery change of position, if it must advance further to support the attack.

340. The senior commandor coordinates the battle activity of the tanks with the cooperation of the other arms. The battle engaged in by other arms must direct itself in accordance with the zone of the tanks.

Infantry must utilize for a rapid advance the effect produced by the attacking tanks.

A portion of the heavy weapons beat down the hostile tank defense weapons. Should the hostile resistance be revived and bring the rapid continuance of our attack to a halt, we must break through as rapidly as possible, often through the intervention of the rearward tank echelons.

Artillery supports the tank attack. It takes under fire the hostile defense weapons, subdues hostile O.P.s or places smoke upon them, neutralizes woods and villages which the tank attack passes, or beats down these areas and prevents the intervention of hostile reserves. Armored and motorized artillery and motorized tank defense guns may accompany the tanks in attack.

Motorized engineers may be attached to tank units. They remove hinderances and obstructions, they strengthen bridges and facilitate the passage over ditches and swamp ground.

Attack aviation supports the tanks by attacking hostile defense weapons, artillery and reserves. Planes flying deep into hostile territory can maintain communication between the troop commander and the tanks and can warn of hostile tank attacks.

Under favorable conditions the tank attack can be assisted by smoke.

Communication between the tanks and other arms participating in their attack is indispensable, above all with the artillery. Either prearranged signals or other means of communication are used. Before the attack, the commanders participating therein should seek occasion to discuss it mutually.

341. Attack and bombardment aviation can be employed directly for support of the attack or indirectly against distant targets.

342. Antiaircraft troops are employed to secure the development and assembly areas of the attack force and the forming up of the artillery and to support the battle air reconnaissance.

Several AA batteries are advanced sufficiently far forward to be able to reach planes quite a distance over the enemy line.

The protection against air reconnaissance and air attacks over the attack area must be secured early.

Report No. 14,507.

343. Engineers support the supporting infantry by removing blockades, by overcoming hindrances, and by attacks upon fortified strong points. As for the rest, they can give essential battle service by preparing the terrain for the supply columns in rear of the troops.

344. Outside of engaging artillery and reserves, gas can be advantageously employed to provide or strengthen blockades on the flank. The attacking infantry must be instructed early where and when it is employed, the length of time effective, so that it can arrange its advance accordingly.

345. Artificial fog (smoke) can, in favorable weather and wind conditions, be used to camouflage our own attack troops and blind hostile O.P.s and defense. It is especially valuable in overcoming terrain without cover. The attack troops must utilize its short duration. The artillery must be informed of the probable area of the intended smoke screen so that it can take the appropriate measures.

346. The division signal battalion, so far as possible, establishes and maintains wire communication between the division commander and the artillery commander and each subordinate commander under their orders. All subordinate leaders provide communication during the advance and with the establishment of the C.P.s.

The employment of communication means must correspond to the decisive action.

The infantry and artillery nets are to be planned separately. The artillery net takes precedence.

Signal means in reserve are kept ready to guarantee a sure communication between the fighting troops, especially infantry and artillery, in an advancing attack.

Cross communication facilitates the cooperation between arms and the rapid exchange of observation results.

347. Exceptionally, during the attack, the direct wire communication to subordinate commanders cannot be maintained. In these instances the division signal battalion advances only the trunk line, consisting of many wires. At the end of the trunk line there is established an advanced message center from which communication to units is established.

348. The division C.P. must be established early, since its location has great influence on the building up of a division communication net. This net is augmented through the communication net of the observation battalion, of the air units, and of the antiaircraft units. The division signal battalion establishes connection between these nets and the division net.

#### Assembly Areas for the Attack.

349. Should reconnaissance determine that the enemy has apparently decided to defend, the troops, as a rule, after the preceding development, are prepared for battle.

350. The order for the assembly positions for the attack provides for infantry assembly areas, security for the assembly areas, the conduct of those elements already engaged, the artillery forming up, as well as further reconnaissance and information. An effort is made to give as many directions as possible, in the assembly position order, for the later execution of the attack, so that the necessary preparations can be made: such as, missions for the individual arms, arrangements for the ammunition replacement, and the con-

duct of the light columns\* and of the wagon elements, as well as for the medical and veterinary service. As a rule, the location of the horse-drawn supply column can be ordered. As a result the latter attack order can be brief.

\* A light infantry column consists of:

- 27 trucks (ammunition)
- 2 motorcycles
- 90 men

and there is one in each regiment.

351. The terrain for the infantry assembly is favorable if it offers cover against observation and fire and permits the infantry to advance in the most favorable attack direction under the protection of the supporting arms. For the advance from the assembly area, terrain without cover is to be avoided, where possible, and is to be observed only by artillery and heavy infantry weapons. Terrain which is necessary for observation and for the deployment of infantry must, under some conditions, be taken beforehand.

As a rule, in open terrain the assembly areas must be at a greater distance from the enemy.

Units need not be equally far advanced. Those which find themselves prepared nearer the enemy must facilitate the advance of the more rearward elements.

Infantry which is in an assembly area for a (wide) envelopment is sufficiently far removed from those elements making the frontal attack so that the inner flanks do not come together.

At the latest the infantry executes battle reconnaissance as it goes into assembly positions. Moreover, it must secure the assembly areas and later deployment by reconnaissance.

352. The deployment of the artillery is executed to meet the demands of the gradual assembling of the infantry, which the artillery must cover.

Before the artillery is deployed (formed up) the artillery commander shall hear from the higher commander concerning the possibilities of artillery support since they are of great influence in the execution of the attack and may require special reconnaissance.

The reconnaissance for O.P.s and firing positions must consider the possibility of fire unity upon the probable decisive attack areas. The higher commander and the infantry commander, to whom artillery is attached or whom it supports, must therefore inform the artillery early as to the manner in which they intend to conduct the attack.

Where possible, the artillery is to be so put in position that from one deployment it can execute its missions during the attack. In addition, several batteries, and also those to execute counterbattery, must occupy advanced firing positions. The terrain, its natural growths, the curve of the trajectory at different ranges and the possibility of traverse may place limitations upon these demands.

Supporting or attached artillery must remain near the infantry. Thus and through short connections between O.P.s and firing positions it increases the speed, surety, and effectiveness of its support.

Where a change of position cannot be avoided, fire effect may not be annulled and the changes must be made in echelon.

The accumulation of batteries in small areas is to be avoided.

Report No. 14,507.

In divisions which are strong in artillery, it is occasionally suitable to form the artillery units into groups; in the front line such organization comes into question in an attack against a position.

353. The infantry in front of the artillery provides frontal security therefor. Special flank protection may be necessary. The watchfulness of the artillery must provide against surprise. Each artillery unit must prepare its own self defense, especially against tanks, by close-in security and observation.

354. While the infantry is in assembly positions, the artillery makes all preparations for the support of the attack. It takes under fire compensating targets in adjacent zones, draws out the hostile artillery fire, executes counterbattery against known batteries, as well as AA batteries. In addition, artillery fliers are to be placed early at the disposal of the artillery commander. The balloon platoon and the observation battalion are to be employed (for counterbattery execution, see par. 358). Large troop movements and especially important targets are to be taken under fire at great distances.

It is suitable to limit the number of batteries charged with the execution of the above missions in order not to betray to the hostile artillery our own intentions and firing positions.

#### Progress of the Attack.

355. Insofar as it has not already ordered in the assembly area, the attack order fixes the objectives, the organization of the infantry, its zones and boundaries according to the circumstances, the organization and fire support of the artillery, the time of the attack, the reserves and their location.

356. The relative strength of the opposing artillery and the possibility of engaging the hostile artillery influences the choice of attack terrain for the infantry, the time of the attack and, under some conditions, necessitates the bringing forward of other arms and battle means.

Infantry attacking with strong artillery support has no need to fear the overcoming of open terrain. In certain instances, and especially with not so strong artillery support, it is preferable for the infantry to work forward as far as possible in terrain with cover and which deprives the hostile artillery and heavy arms of observation. Darkness and smoke come into question if the hostile artillery fire must be deprived of terrestrial observation.

357. The infantry attack begins with the advance of the light infantry arms under protection of artillery and heavy infantry weapons.

**Note:** Each Infantry Co. consists of three platoons,  
each platoon of three groups, each group, 16 men, 1 L.M.G.

In the advance the units develop and deploy, as the terrain and hostile reactions demand, with irregular distances and intervals and in sufficient depth. Cover and areas difficult for hostile fire are to be used. Should hostile fire force it, the advance is made by bounds or by rushes in groups, either large or small. In the halts the riflemen seek cover so that they decrease the hostile fire effect as much as possible. At effective distances the fire of the light machine guns is opened. Under their protection the riflemen continue to advance. Upon closer approach they likewise participate in the fire fight, to the extent necessary.

Hand in hand with the advance of the light, the heavy infantry weapons follow the echelon. These must cooperate more closely with the forward elements as the focal point of the hostile resistance is determined. At this time it may be necessary to attach a portion of the heavy infantry weapons to the most advanced units.

In terrain affording poor observation this may be necessary at the beginning of the engagement. The remaining heavy infantry weapons support the attack from positions further to the rear. They are advanced by echelon. In the employment of the heavy infantry weapons every endeavor must be made to concentrate their effect and to complement the fire of the artillery, especially with minenwerfers, against targets which are difficult for the artillery to hit.

The advance against the enemy is executed under careful regulation of fire and movement. Elements advancing without cover must not lack fire support. While these work forward, the adjacent units hold down the enemy especially by means of their light machine guns in conjunction with the heavy arms. Up to the decisive thrust, it is always a question of having transitory and local fire superiority and of utilizing this for a rapid advance. Elements unable to advance dig in for protection. Every opportunity is used to advance. As weak places develop in the enemy line, the elements heretofore retarded are, with reinforcements, directed against these areas.

Independence of action of the lower commanders and their joint cooperation are at all moments of the advance of decisive importance.

358. The artillery supports the infantry attack primarily by engaging the hostile artillery and infantry. Both must be engaged throughout the battle by our artillery. The engaging of other targets is limited to short time periods.

The hostile artillery is uniformly engaged under the direction of the artillery commander or another artillery leader. The counterbattery of the artillery depends essentially on the reconnaissance (information) possibilities and the available ammunition. Artillery aviators, observation battalions and balloons provide with their early observation and information of the terrain of the attack the bases for the engagement of the artillery. The commander of the counterbattery work must be clearly connected with the commander of the AA artillery and the air service in order to guarantee, with their help, the activity of the artillery flier. The suppression of hostile batteries is secured through the simultaneous surprise fire of several batteries, for longer periods by gas. The silencing of hostile batteries is possible only with great ammunition expenditure and sure observation heavy calibers are most suitable.

By the engagement of our artillery with hostile infantry it is a matter of increasing the effectiveness of our own infantry. The effective range of the artillery, and often that of the heavy machine guns, often extends deep into enemy territory and on the flank of our attacking infantry, whereas the fire of the light machine guns, partly that also of the minenwerfers, can remain, until immediately before the assault, on the foremost hostile elements. Should the artillery working directly with the infantry prove inadequate for the required support, the artillery commander must augment with the remaining artillery, preferably by placing it in support of the decisive action.

359. Every attempt is made to engage the greater part of the hostile artillery before the attack of the infantry.

Not infrequently the hostile forces and weapons which oppose the attack are first disclosed as the infantry attacks. Especially are many artillery positions often unrecognizable or only partially defined prior to the attack, with the result that this artillery can be energetically engaged only after the various reconnaissance agencies have definitely identified it.

At the beginning of the infantry attack, therefore, numerous batteries, if possible, must withhold their fire and lie in waiting, in order to engage previously unknown hostile elements, especially batteries which were previously silent. Moreover, it is a waste of ammunition, to fire, prior to the attack, upon areas whose occupation has not been determined.

360. Should the situation be such that the artillery appears to have inadequate strength and observation facilities for the engagement of hostile artillery prior to the attack and should the engagement of hostile artillery during the attack be without great prospect, then our artillery is employed against the hostile infantry.

361. The more the picture of the hostile resistance is clarified, all the more important is it to concentrate superior artillery fire on those areas of the hostile front where our success has been less. In such situations the infantry commander cannot delay in withdrawing artillery support from one infantry unit in order successively to support the attacks of adjacent elements.

The immediate utilization of the artillery fire effect by the infantry is of decisive importance. Should the further advance of the infantry require additional agreements between the two arms, then we find pauses in the advance unavoidable. The nearer the infantry attack approaches the enemy, the more time is required to deliver orders and to receive instructions concerning the fire cooperation from the artillery.

362. Gradually the infantry works forward in several places to close range and to penetration capability. With a decision of the front line element to execute a penetration, the supporting weapons are kept informed by means of light or other signals or by information imparted through all means at its disposal. As necessary, the supporting weapons raise their fire from the areas of penetration and place them correspondingly in advance of the infantry attack. Above all, they lie in wait for those targets which now for the first time appear, engage them forthwith, and continue engaging opportune targets in the zone of the breakthrough, until likewise the fire must be lifted from these. The deeper the infantry penetrates, the more important the cutting off of hostile enfilade fire. Observers of all supporting arms must closely follow the advanced infantry elements.

Is previous understanding between the supporting weapons and the infantry which is breaking through not possible, these weapons must, by excellent observation, seek to determine the intentions of the infantry and to meet its demands. Under certain conditions the supporting weapons can, by lifting their fire from the foremost hostile elements, give an impetus to the infantry attack.

If the infantry works forward to break through position on a broad front and if the break through can be uniformly launched, then the necessary lifting of fire prior to the break through, the time of the break through and the transfer of fires according to time and place are governed by orders.

363. Penetrations are of smaller or greater extent, depending upon the size of the break through element. The success is exploited in depth. The infantry, reinforced by rearward elements, attacks straight ahead against the hostile strong points and nests. Now the attack resolves itself into individual engagements, ordinarily. Heavy infantry weapons and other rearward elements protect the flanks and rear of the forward elements and are to be kept near. By additional forces from the rear and the forwarding of munitions, the attack is continually strengthened, otherwise our force is soon consumed in the depth of the hostile position. In rapid, powerful utilization of the initial success lies the basis for its enlargement.

As soon after the break through as it is determined that the artillery which has been engaged can no longer from its initial positions support the attack, either upon order or independently the batteries advance.

They advance to positions as close as possible to the infantry, gain contact therewith, engage hostile elements, assist in repelling counterattacks and by their fire secure the further utilization of the success.

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