3-1-1946

Handbook on USSR Military Forces: Chapter III, Field Organization

War Department (USA)

Robert L. Bolin , Depositor
University of Nebraska-Lincoln, rbolin2@unl.edu

Technical Manual, TM 30-340, 1 March 1946

Handbook on USSR Military Forces
Chapter III, Field Organization

Robert L. Bolin, Depositor
University of Nebraska-Lincoln, rbolin2@unl.edu

Handbook on USSR Military Forces
Chapter III, Field Organization

War Department
Washington, DC

Comments

The copy digitized was borrowed from the Marshall Center Research Library, APO, AE 09053-4502.

Abstract

TM 30-340, Handbook on USSR Military Forces, was “published in installments to expedite dissemination to the field.” TM30-430, Chapter III, 1 March 1946, “Field Organization,” contains detailed descriptions of the organization of various types of units in the armed forces. The text is further illuminated by numerous tables of organization and equipment.

This manual is listed in WorldCat under Accession Number:
OCLC: 19989681

A Note on Scholarly Usage

Since revised editions of Army manuals are customarily issued with the same manual number and title as the previous editions, the minimal scholarly citation must contain the date of issue. The minimum unambiguous citation for this chapter is TM 30-430, Chapter III, 1 March 1946.

TM 30–430
CHAPTER III

TECHNICAL MANUAL

HANDBOOK ON U. S. S. R. MILITARY FORCES

TM 30–430 is being published in installaments to expedite dissemination to the field. These chapters should be inserted in the loose-leaf binder furnished with Chapter V, November 1945.

WAR DEPARTMENT
WASHINGTON 25, D. C., 1 March 1946

TM 30–430, Handbook on U. S. S. R. Military Forces, is published for the information and guidance of all concerned.

[AG 300.7 (8 Oct 45)]

BY ORDER OF THE SECRETARY OF WAR:

OFFICIAL:
EDWARD F. WITSELL
Major General
The Adjutant General

DWIGHT D. EISENHOWER
Chief of Staff

DISTRIBUTION:
AGF (80); ASF (2); T (10); Arm & Sv Bd (1); S Div ASF (1).
Refer to FM 21–6 for explanation of distribution formula.

CHAPTER III

FIELD ORGANIZATIONS

TABLE OF CONTENTS

List of Illustrations

686882°—46——3

CHAPTER III

FIELD ORGANIZATIONS

INTRODUCTION

1. PREWAR FIELD ORGANIZATIONS

Immediately prior to the outbreak of the war with Germany, the highest active field organization in the Red Army was the military district. Each military district was responsible for the administrative, mobilization, and command functions of its specific geographic area. The Finnish War, for example, was conducted by the Leningrad Military District.

The highest tactical organization of the military district was the corps. The rifle corps consisted of headquarters, three to four rifle divisions, one or two regiments of corps artillery, an antiaircraft artillery group, a signal battalion, a chemical warfare battalion, an air reconnaissance squadron, and various service units, all making a total of 60,000 to 65,000 men. The cavalry corps included headquarters, two to three cavalry divisions, a howitzer regiment, a mechanized brigade, an engineer and a signal battalion, and service troops, totaling about 20,000 men. The moto-mechanized corps, then still in the experimental stage, comprised headquarters, two mechanized brigades, a motorized infantry machine gun brigade, an engineer company, a chemical warfare company, a flight of reconnaissance aircraft, and minor service units, totaling about 12,000 troops.

The principal ground formations were the rifle, cavalry, and artillery divisions, and the moto-mechanized and the tank brigades. The rifle division consisted of headquarters, three rifle regiments, two artillery regiments (a mixed field artillery and a howitzer regiment), a reconnaissance, a light tank, an antitank, an engineer, a signal, and a medical battalion, an antiaircraft machine gun company, a field hospital, and services (figs. 1 and 2).

The cavalry division included headquarters, four horse cavalry regiments, one mechanized cavalry regiment, a mixed artillery regiment, an engineer squadron, a signal group, an air reconnaissance squadron, and service units. The strength of a cavalry division was 7,000 men. It had 64 light tanks and 16 armored cars. Its principal weapons consisted of sixteen 76-mm guns, eight 122-mm howitzers and sixteen 76-mm howitzers, and eight 45-mm and 37-mm antitank guns.

Four artillery divisions were reported. Their organization was believed to be as follows: headquarters, one light artillery regiment, two heavy artillery regiments, one antiaircraft artillery regiment, and various services.

The moto-mechanized brigade consisted of headquarters, three tank battalions, a reconnaissance battalion, an infantry battalion, a motorized artillery battalion, a troop transport battalion, special troops, and services. Its strength was 3,300 men. Is principal armament consisted of twelve 76-mm guns, one hundred and sixty light and medium (10-ton) tanks, nineteen tankettes, and tweny-four armored cars.

The tank brigade consisted of headquarters, three tank battalions of heavier tanks (T28 and T35), and a security battalion which was comprised of a signal company, an engineer company, an antiaircraft machine gun company, a traffic control company, and a brigade park.

2. UNDERLYING FACTORS IN MODIFICATION OF THE ORGANIZATION OF THE RED ARMY, 1941–44

The factors which influenced changes in organization of the Red Army units and formations included: combat lessons learned in the Finnish War and the war with Germany, initial weakness and subsequent growth of the officers' corps, necessity to halt the advance of the German Army, huge losses of personnel and matériel in 1941, decreased output of factories in the early years of the war, and subsequent abundance of matériel.

The war with Finland proved several things to the Soviet high command. It showed that the

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	7.62-mm HvMG	12.7-mm AAMG	14.5-mm ATR	50-mm Mort	82-mm Mort	120-mm Mort	37-mm AA G	45-mm or 57-mm AT G	76-mm G & How	85-mm AA G	122-mm How	122-mm G	152-mm How	152-mm G/How	132-mm RL	Flame Thrower	T–34/85 Tk	SU 85 (85-mm SP G)	SU 152 (152-mm SP G/How)	Armd C	Armd Pers Carr	Trac	Tlr	Trk	Sp Veh	H-dr Veh	H	Ki	Rad
R Corps	32,400	19,200	7,775	1,645	405	63	750	168	249	63	----	150	96	----	84	----	24	----	----	----	----	----	----	----	15	221	196	861	257	1,830	5,319	225	300
R Div	9,619	5,426	2,398	522	135	18	218	56	83	21	----	50	36	----	12	----	----	----	----	----	----	----	----	----	----	21	12	160	66	610	1,773	63	56
Tk Corps	11,964	7,180	2,963	415	47	55	217	----	52	42	16	46	48	----	----	----	----	----	8	10	200	20	20	31	43	41	24	1,336	241	----	----	78	470
Mecz Corps	17,457	10,098	4,900	731	109	55	375	----	100	54	16	52	64	----	----	----	----	----	8	10	192	20	20	48	35	25	24	1,878	217	----	----	100	525
Mtz R Brig	3,238	1,707	955	165	35	9	81	----	30	6	----	12	12	----	----	----	----	----	----	----	----	----	----	7	10	----	----	299	----	----	----	17	44
Tk Brig	1,306	692	300	25	137	74	24	----	6	----	----	4	4	----	----	----	----	----	----	----	65	----	----	3	----	11	----	115	30	----	----	9	93
Cav Corps	18,720	12,234	6,175	616	144	44	400	----	108	56	34	48	96	----	----	----	----	----	8	----	83	20	----	----	----	38	----	854	21	1,316	14,503	130	271
Arty Div	9,743	7,907	1,215	144	----	24	288	----	----	108	----	----	72	----	48	12	24	24	----	----	----	----	----	----	----	262	294	1,103	168	----	----	90	294
AAA Div	2,043	1,541	456	----	----	64	----	----	----	----	48	----	----	16	----	----	----	----	----	----	----	----	----	----	----	16	----	278	12	----	----	11	41
L Arty Brig	2,063	1,772	255	36	----	3	72	----	----	----	----	----	72	----	----	----	----	----	----	----	----	----	----	----	----	18	72	280	50	----	----	25	82
L How Brig	2,242	1,892	362	36	----	9	72	----	----	----	----	----	----	----	48	----	24	----	----	----	----	----	----	----	----	158	136	214	36	----	----	24	78
Medium G Brig	2,128	1,396	308	18	----	9	36	----	----	----	----	----	----	----	----	12	----	24	----	----	----	----	----	----	----	86	76	191	18	----	----	17	66
120-mm Mort Brig	1,705	1,397	135	54	----	3	108	----	----	108	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	268	35	----	----	16	52
Rkt Regt	808	656	104	15	----	6	----	----	----	----	6	----	----	----	----	----	----	----	24	----	----	----	----	----	----	----	----	110	----	----	----	4	20

Figure 1. Table of Organization and Equipment of the principal field units of the Red Army.

Date	Off	EM	Total O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	7.62-mm HvMG	12.7-mm AAMG	14.5-mm ATR	50-mm Mort	82-mm Mort	120-mm Mort	107-mm Mort	37-mm AA G	45- or 57-mm AT G	76-mm G & How	76.2-mm AA G	122-mm How	152-mm How	RL	Flame Thrower	Rad	Mtrcl	Armd C	T–38 Tk	Trac	Trk	H-dr Veh	H	Ki
13 Sept 1939	650	18,191	18,841	17,713	----	578	162	33	60	81	18	----	12	4	54	42	4	28	12	----	----	----	145	12	38	92	725	2,177	6,208	140
5 Apr 1941	792	13,662	14,454	12,378	1,195	392	166	33	----	84	54	12	----	4	54	16	4	20	12	----	30	----	16	13	16	99	586	888	2,033	96
29 July 1941	465	10,225	10,790	10,201	162	162	108	9	18	54	18	6	----	6	18	16	4	8	----	----	30	----	4	----	----	5	200	797	2,468	57
6 Dec 1941	671	11,236	11,907	10,627	552	251	108	12	81	72	72	36	----	6	18	16	----	8	----	8	60	----	4	----	----	16	243	868	2,640	85
18 Mar 1942	729	12,084	12,813	8,875	639	352	114	9	279	76	76	18	----	6	30	20	----	12	----	----	60	----	4	----	----	15	154	729	1,858	81
28 July 1942	----	----	10,566	8,854	712	338	139	9	228	85	85	18	----	6	48	32	----	12	----	----	----	----	4	----	----	15	150	721	1,804	64
12 Dec 1942	----	----	9,447	5,491	2,200	512	135	----	212	56	83	21	----	----	50	32	----	12	----	----	----	59	4	----	----	15	167	642	1,840	56
12 Dec 1942 Guards Div	----	----	10,556	5,984	2,698	507	162	----	279	60	85	24	----	----	52	36	----	12	----	----	----	71	4	----	----	24	175	699	1,968	62
June 1944–May 1945	----	----	9,619	5,426	2,398	522	135	18	218	56	83	21	----	----	50	36	----	12	----	----	----	59	4	----	----	21	226	610	1,803	56

Figure 2. Changes in strength and equipment of the Rifle Division 1939–1945.

organization of higher tactical units was too unwieldly, and that a generous allotment of armor, technical services, and arms to the rifle divisions often resulted in the needless dilution of these reinforcements. The dispersal of these special units along the entire front made difficult the concentration of armor, artillery, engineers and other technical arms and services in a decisive sector. Thus, the major changes in organization—such as the reduction in size of the rifle division, and the concentration of special and technical forces in GHQ units—were initiated in April 1941. Although these changes were retarded and modified by other factors, they were carried out during the first 2 years of the war with Germany.

As a result of rapid expansion of the field forces, and initial heavy losses of officer personnel, many Red Army formations in 1941 were commanded by officers inadequately trained to employ efficiently the many specialized arms, services, and heavy weapons assigned to their formations. The lack of a sufficient number of adequately trained officers necessitated the creation of manageable units which could be commanded by men of common sense and strong character, but lacking in highly specialized training.

The command of heavy weapons, for example, could not be entrusted to the officers then in command. As a result, most infantry heavy weapons, and many specialized arms and services from infantry, cavalry, and armored formations, were withdrawn and made independent. This reorganization not only placed specialized arms and services under competent leadership, but also effected considerable economy of equipment and personnel. Reduction in size of the field units, and simplification of their organization, simplified logistical problems and made these units more efficient even when commanded by inexperienced officers.

During the early years of the war, the Soviet high command was primarily concerned with halting the German advance. This necessitated the activation of new units and the reorganization of depleted units when sufficient time could not be allotted for the training of large formations. Simultaneously, Soviet industry was redeploying to the east, curtailing or stopping production of some items of armament and equipment. These factors resulted in the formation of a large number of rifle, tank, and mechanized brigades instead of divisions, and in the creation of emergency organizations such as the marine rifle brigades and workers brigades and battalions.

During the first year of the war, a great mixture of organizations existed. Side by side in the surviving regular divisions were reserve and emergency organizations of varying size and composition. Much of their armament was obsolete.

3. RESULTS OF REORGANIZATION

The developments in the organization of units were carried out logically, quickly, and thoroughly, as were all other combat lessons which the Russians learned, and adapted to their own use, during the war.

An increasing number of re-equipped, fully manned, and trained units appeared in the winter of 1942–43 and, especially, after July 1943. The outlines of a new Red Army organization, its basic doctrines of 1941 considerably modified by combat experience, were generally clear in the winter of 1943–44. Since 1941, the major modifications in ground organizations have been toward increasing the mobility and fire power of the rifle, cavalry, and armored units and formations; the centralizing of supporting arms and services, and their groupment into independent units. Basic units with standard Tables of Organization have become the foundation for a wide range of temporary combat groupings of basic and specialized arms and services, as prescribed by tactical requirements.

Army Groups (Fronts) have superseded the military districts as the main planning and administrative agencies under the Supreme Command. This change was anticipated in the Soviet theory and training doctrines as early as 1934. Military districts are maintained in rear areas only, where they perform the special missions of local security, troop mobilization and training, and control of traffic and supplies.

Armies superseded corps in controlling combined operations, handling administration for, and servicing their component formations and units.

The organization of rifle corps was changed several times. During the retreat of the Red Army, the rifle corps were eliminated. Armies controlled the rifle divisions directly. During subsequent offensive operations, the rifle corps reappeared as the forward headquarters for tactical control of rifle divisions. During the last year of the war, rifle corps became a more permanent organization. The rifle corps lost an antiaircraft artillery battalion and a chemical warfare company. It gained a tank

destroyer artillery regiment and a rocket battalion or regiment.

The cavalry corps became a powerful, balanced team. Its light howitzer regiment was replaced by a more mobile heavy mortar regiment. It gained a self-propelled artillery regiment, an antiaircraft automatic weapons regiment, and a rocket battalion.

The moto-mechanized corps disappeared. In its place, two new organizations, the tank corps and the mechanized corps, were developed. The tank corps consists primarily of tanks supported by motorized infantry. The mechanized corps consists primarily of motorized infantry supported by tanks. Both the tank and the mechanized corps are supported by powerful organic artillery comprised of self-propelled, tank destroyer, mortar, antiaircraft, and rocket units.

Artillery corps, controlling several artillery divisions reinforced by independent brigades and regiments, appeared in 1944. Four artillery corps were identified in the spring of 1945.

The rifle division has been drastically reduced in strength. In April 1941, it was reduced from 18,841 to 14,454 officers and enlisted men. Its basic size of approximately 10,000 was determined in July 1941. The reduction in size was accomplished by eliminating the light tank battalion, the howitzer artillery regiment, and the mechanized reconnaissance elements, and by a reduction in the size of service units. The divisional hospital, for example, was taken over by the army. At the same time, the forward fire power of the rifle division has been increased by a generous allotment to the rifle regiments of submachine guns, machine guns, and mortars. Thus, the 1945 rifle division, as compared with the 1939 rifle division, has a reduced reconnaissance ability and weaker replacement capacity, but it has better tactical and strategic mobility. With normal artillery attachment, it has greater fire power.

Artillery divisions have greatly increased in number and size. They now include 24 to 30 firing battalions, organized into brigades and regiments. The number, type, and caliber of weapons in the component brigades and regiments are determined by the mission of the division.

Cavalry divisions lost a mechanized and a horse regiment. Mortars, submachine guns, and antitank rifles, however, have been introduced in large number, increasing the forward fire power of the division and improving its local antitank and antiaircraft defense.

The mechanized and motorized infantry machine gun brigades were discontinued. The mechanized brigade (formerly called moto-mechanized) tank strength has been reduced to 40 medium tanks, and its reconnaissance battalion to a company. It is now a balanced team of motorized infantry, tanks, and supporting artillery. The tank brigade has been better balanced. A great many artillery brigades, both independent and as parts of artillery divisions, have appeared.

4. PROBABLE FUTURE TRENDS

The indications of future trends discussed below are based on fragmentary information and represent possible developments. The speed with which these changes are likely to take place will vary considerably between the various arms and services.

Tactical units of the Red Army were evolved during the course of the war with Germany and have been proved in combat. Basic changes in the organization of infantry and cavalry divisions, and of tank and mechanized corps, are not expected. However, the development of new weapons, and improvements on existing models, will lead to adjustments within the frameworks of standard organizations. Some of the weapons which will influence changes in Tables of Organization of the Soviet ground formations include the new 100-mm high-velocity gun, the 160-mm heavy mortar, powerful light antitank and antiaircraft weapons for infantry and cavalry, and increases in caliber of self-propelled artillery, rockets, and guided missiles.

Reduction in the size of the army, elimination of combat losses of specialized equipment and personnel, plus ample time for production of necessary equipment and training of specialists, will make it possible to increase the quality of technicians within the standard units of the Red Army. An increase in the number of specialized GHQ units may also be expected. It is not expected that signal, ordnance, motor maintenance, medical, and engineer units will be larger. It is not anticipated that motorization will be effected in infantry and cavalry formations and units. There may be slight increase in the number of organic motor vehicles.

Although airborne troops were not used on a large scale during the war with Germany, it is expected that further development of this arm will be stressed. Together with the growth of the airborne arm, the Red Army will improve the training and equipment of airdrome engineers.

There is evidence that the engineer arm will be-

come more independent, and that large engineer units such as divisions and brigades may be organized.

a. Infantry and cavalry. Future changes in over-all organization of infantry and cavalry units and formations will probably be conservative. However, certain changes within the larger framework may be expected. For example, persistent though unconfirmed reports in the winter of 1945–46 have mentioned motorized rifle divisions with tanks (in 1941 the Red Army had two motorized rifle divisions which were later disbanded). It is likely that the antitank rifle will be replaced by a light, powerful, rocket-type or recoilless weapon. Antiaircraft defense of front-line troops may be augmented by light rocket-firing devices. The fire power of the rifle battalion will be increased by substitution of 57-mm antitank guns for the 45-mm antitank guns and by increasing the number of battalion 82-mm mortars from nine to twelve. The 50-mm company mortar will be eliminated. Regimental artillery will probably undergo changes. The regimental 120-mm mortar battery may have four instead of seven mortars. The antitank battery may have six 76-mm guns instead of six 45-mm antitank guns. It is likely that the divisional artillery of both the rifle and the cavalry divisions will have a heavy mortar unit and a second 122-mm to 152-mm howitzer-artillery regiment, by attachment if not organically. The present artillery regiment already has been strengthened, and will be used in RCT role.

b. Artillery. There probably will be a marked difference between corps artillery and artillery of the higher formations (armies, Fronts, and GHQ) in type of weapons, and in their employment. Corps artillery probably will continue to be organized into brigades and regiments, and will absorb most of the light and medium artillery which is at present controlled by higher formations. It will be used for direct support of ground operations. Newly developed weapons, such as long-range rockets, guided missiles, super long-range guns, and the present heavy artillery (made for the most part self-propelled), will be organized into artillery corps, divisions, brigades, and independent regiments. Control of these units will be retained by the High Command, which will assign them to Fronts and armies for special long-range missions. The new 160-mm mortar gradually will replace the 120-mm mortar in mortar regiments and brigades. It is expected that tank destroyer artillery units will be armed to an increasing extent with self-propelled weapons, probably the new 100-mm guns.

c. Tanks. At the end of the war with Germany, the proportion of heavy to medium tanks in the Red Army was approximately 1 to 5. It is believed that the intention is to increase the number of heavy tanks, and to manufacture light reconnaissance tanks so that the ratio of medium, heavy, and light tanks will be 4 to 3 to 1. In order to maintain such a ratio, and at the same time preserve logistical requirements of the present tank corps, some adjustment in the structure of the tank brigades will be necessary. A possible organization of the tank components of the tank corps will be as follows: reconnaissance battalion with 25 light tanks, and three tank brigades with four medium tank companies of 10 medium tanks each and four heavy tank companies of 5 heavy tanks each (plus 3 headquarters tanks). Such a tank corps would have a total of 214 tanks including 25 light, 60 heavy, and 129 medium tanks.

A possible organization of the tank components of a mechanized corps would include: a reconnaissance battalion with 25 light tanks, a tank brigade with 43 medium and 20 heavy tanks, and three mechanized brigades, each with a mixed tank regiment. The mixed tank regiment would have three medium tank companies with 10 medium tanks each and three heavy tank companies with 5 heavy tanks each (plus 3 medium tanks in headquarters). Such a mechanized corps would have 222 tanks including 25 light, 132 medium, and 65 heavy tanks. The ratio of the heavy to medium tanks in the above organizations is approximately 2 to 1. The remainder of the heavy tank strength probably will continue to be organized into independent heavy tank regiments of 20 tanks each.

Section I. ARMY GROUPS, ARMIES, AND CORPS

1. ARMY GROUP (FRONT)

The Army Group (Front) is the basic planning and administrative organization. The size of its sector is determined by lines of communication. It contains and allots tactical and service reserves. It services its combat components, operates the primary axis of supply and evacuation, and coordinates the supporting military districts. The development of the Front was largely governed by logistics. The lack of adequate roads and relative scarcity of railroads in the U. S. S. R. not only brought about a

rigid centralized control of transportation, but even determined tactical capabilities. As a result, the basic planning and administrative organizations were delineated by routes of communication, rather than the political boundaries of the military districts.

An Army Group's strength is approximately 1,000,000 men. It is generally commanded by a marshal who is assisted by a military council and staff. The council, presided over by the commander of the front, has three other members. One represents combat arms and services; the second represents rear area services and administration; the third is an officer secretary of the council. If the Front is located within the political boundaries of the U. S. S. R., the secretary of the regional committee of the Communist Party acts as a liaison officer between the military and civil authorities. The military council determines basic policy on organization, training, and administration of the Front. It supervises the execution of the commander's orders. A member of the council countersigns field orders of the commander.

The staff of the Front, consisting of the forward and rear echelons, is controlled by the Chief of Staff. The forward echelon, during combat, includes the (Operations) Staff, the staffs of the Chiefs of Arms and Services, political administration, and the training and personnel departments. The rear echelon includes the service staff, controlled by the deputy commander for rear area, and consisting of chiefs of rear area services, administration for captured matériel, the field post office, and the judge advocates department.

A Front consists of a permanent headquarters, attached service troops, supply and administrative installations, and a variable number of combat formations with their supporting units. Variations in the number and type of major combat formations and supporting units are numerous. A typical active Front has the following major components: four or five infantry armies, one or two tank armies, one or two air armies (1,000 to 1,100 planes each), four artillery divisions, five antiaircraft divisions, five rocket brigades, two independent mortar brigades, four independent heavy artillery brigades, five tank destroyer brigades, two tank corps, one or two mechanized corps, and a cavalry corps.

In addition to the headquarters and staff, a Front has the following service units, whose number is commensurate with the number of the combat components of the Front: engineer construction brigades, bridging battalions, motor transport brigades, signal regiments, road repair regiments, signal intelligence battalions, security battalions, officer replacement regiments, infantry replacement regiments, penal battalions, and maintenance, ammunition, fuel rations, and forage depots.

2. ARMIES

Infantry, tank, shock, and cavalry armies are found in the Red Army. An army is the basic strategic organization of combined arms, including air. Although air divisions normally are not an organic part of the ground army, the artillery commander is responsible for the tactical coordination of the supporting aviation. The army plans, coordinates, and maintains all phases of a continuing operation.

An army consists of a large, permanent headquarters to which are allotted combat troops and services to execute a strategic mission. Theoretically, it is a task force, although in actual practice the major components have been increasingly stable. Considerable variation exists in the composition of the different armies, especially in the number of supporting armored and artillery units which may be allotted to them by the Army Group (Front). Every army consists of headquarters and at least the following service and administrative elements:

1 signal regiment.
1 replacement regiment.
2 engineer construction battalions.
1 flame thrower battalion.
1 chemical warfare battalion.
1 road maintenance battalion.
Field bakeries.
2 reconnaissance battalions.
2 to 4 motor transport battalions.
1 security battalion.
1 penal battalion.
1 ordnance battalion.
Quartermaster depots.
Work shops.

Medical resources of an army include field hospitals in proportion to the number of subordinate formations, two to three evacuation hospitals, three hospitals for slightly wounded, two hospitals for infectious diseases, two veterinary hospitals, and one or two veterinary evacuation hospitals. The service components of an army total 20,000 to 25,000 men.

Major combat components of a typical infantry army include three to four rifle corps, each with

three to four rifle divisions; a brigade with 152-mm gun howitzers and 122-mm guns; a tank destroyer regiment; an antiaircraft artillery regiment; and a mortar regiment. Combat engineers are allotted to an army, from the reserve of the Army Group, at the rate of one battalion for each active division.

Tactical components of a tank army vary according to the terrain and the mission. The 3d Guards Tank Army, for example, consisted of two mechanized corps, a tank corps, one light artillery and two heavy gun-howitzer brigades, a tank destroyer brigade, two self-propelled artillery regiments, a rocket regiment, an antiaircraft artillery regiment, and an engineer brigade. Tank armies normally form part of the mobile reserve of the high command, and are committed at a decisive point during major operations. They are generally withdrawn after the operation.

Cavalry armies consisted of two cavalry corps, one mechanized corps, and the normal army troops. Cavalry armies, like the tank armies, constitute GHQ troops and are used to augment other mobile troops.

Shock armies are made up of picked tank and mechanized corps and rifle divisions. They are combined, according to their mission, with artillery, tank, and engineer units to form a powerful assault force which may be shifted from sector to sector for either offense or defense. These armies are retained in the reserve of the high command. Their composition varies not only from one army to another, but the composition of an individual shock army changes according to the situation.

Guards armies may be infantry, tank, cavalry, or shock. The title "Guards" is appended to any army which distinguishes itself in combat. Components of Guards armies are upgraded in personnel and equipment.

3. CORPS

There are two general types of corps in the Red Army, the operational control corps (rifle and artillery) and the mobile corps (tank, mechanized, and cavalry).

The rifle corps is primarily a forward headquarters, with attached supporting troops, for tactical control of two to four rifle divisions. The commander of a rifle corps has no military council. The forward echelon of a rifle corps headquarters consists of the operations, intelligence, signal communication, and penal sections, and artillery, engineer, and chemical warfare staffs. The rear echelon of the headquarters of the rifle corps is a skeleton organization which consolidates the reports and requisitions of the subordinate formations, and reinforces subordinate rear echelon staffs in critical situations. Normally, attached supporting troops of a rifle corps include a howitzer and a tank destroyer artillery regiment, a signal battalion, and an engineer construction battalion. The service elements of a rifle corps services only the corps headquarters and the attached corps troops.

The artillery corps is a forward artillery headquarters with a balanced staff. It controls two or more artillery divisions and other GHQ artillery units which are assigned to it for a specific operation, or series of operations. Because the artillery corps is primarily a task force, there is considerable variation between corps, and within the artillery corps itself. For example, the V Artillery Corps in the summer of 1944 consisted of three artillery divisions, a heavy howitzer brigade, a medium howitzer brigade, and a heavy mortar brigade. The VII Artillery Corps consisted only of three artillery divisions.

Several antiaircraft artillery corps were identified during the last year of the war with Germany. Each corps controlled two or three antiaircraft artillery divisions, and other GHQ antiaircraft artillery units.

Cavalry, tank, and mechanized corps, in contrast to the rifle corps, are permanent formations with standard Tables of Organization and Equipment.

Section II. ORGANIZATION OF THE GROUND ARMS

1. INTRODUCTION

The stable formations and units of the Red Army are made up of two types of standard organizational elements—the specialized and the interchangeable.

The specialized organizational elements are found in rifle and cavalry divisions. They are characterized by economy of personnel and by maximum cross-country mobility. For example, the engineer battalion of the rifle division has only 164 officers and enlisted men, as compared with 270 officers and enlisted men of the engineer battalion of the rifle and mobile corps.

The interchangeable organizational elements are common to several formations. For example, the motorized 120-mm mortar regiment is found in the tank and mechanized corps; in the artillery division; or it may be independent.

The specialized organizational elements are com-

posed of companies, batteries, or platoons which are identical to the corresponding companies, batteries, and platoons of the interchangeable organizational elements. For example, the battalions of the divisional artillery regiment are unique in that they consist of two batteries of 76-mm guns and one battery of 122-mm howitzers. The organization of each 122-mm howitzer battery is identical with the 122-mm howitzer battery of the howitzer regiment.

The employment of standard organizational elements facilitates rapid creation of temporary tactical groupings. (Temporary tactical groupings are discussed in Chapter V.) Standard organizational elements are as follows:

Formation (*Soyedineniye*). The Formation is a stable organization of combined arms and minimum services designed to execute one phase of a large operation such as a penetration, exploitation, delaying action, or counterattack. Rifle and cavalry divisions, tank and mechanized brigades are examples of a Formation.

Unit (*Chast*). The Unit is the basic organization of a single arm or service: it is the smallest organization with balanced staff and services. Its size varies from a brigade to a battalion. The term applies to an entire, large, secondary component of a Formation; for example, the artillery Unit of an infantry division includes not only divisional artillery, but all artillery in the division including heavy mortars and battalion guns.

Element (*Podrazdelenye*). The Element is a basic grouping of one arm or service lacking balanced staff and services. It varies from battalion to company size. The term is applied to lesser secondary components of a Formation; for example, the engineer or special-troops Element of an infantry division. It is also applied to the main tactical subdivisions of Units; for example, the battalions within an infantry or artillery regiment.

Group (*Gruppa*), and Detachment (*Otryad, Razezd*). The Group and Detachment are small, temporary organizations of mixed arms which are prescribed for given tactical missions. The composition of these special Groups or Detachments is loosely outlined in field service regulations. Some typical examples of such organizations are the reconnaissance Group or Detachment and a leading Group. A reconnaissance Group (Detachment) ranges in size from a company to a reinforced battalion, or two cavalry squadrons. It operates on a front 3 to 8 miles wide and 12 to 15 miles deep. A leading Group (Detachment) may be as large as a reinforced battalion. It is sent out by an advance guard of a rifle regiment and operates 1.5 to 2 miles in front of, or to the flank of, the parent body.

The following Tables of Organization and Equipment of the principal tactical units of the Red Army are believed to be correct in all major items of equipment and over-all strength. The allocation of small arms and submachine guns, and the distribution of headquarters troops, are, however, partly estimated. The description of units is confined to their primary mission and, when practicable, a comparison with a comparable U. S. unit. (The supply and resupply requirements, movement weight, maximum axle load, and limiting speed of the major units are listed in Chapter VII).

2. INFANTRY

a. Rifle division. The mission of the Red Army rifle division is close combat. It is characterized by a marked strength in automatic weapons, especially submachine guns, and heavy and medium mortars. These weapons compensate for relative weakness in field artillery. Although the personnel strength of the Red Army rifle division is 4,424 smaller than the U. S. infantry division, its combat strength is only 200 less. Its supporting and service elements make up only 26 and 12 percent of its total strength, respectively, as compared with 36 and 21 percent in the U. S. infantry division.

	U.S.S.R.	*U.S.*
Infantry	62%	53%
Supporting Arms	26%	36%
Services	12%	21%

With the exception of medium artillery, heavy mortars, and the artillery supply column (and the previously mentioned report of a possible increase in infantry motorization), the Red Army rifle division is horse drawn. Its tactical mobility is low, but it is not road bound. It is incapable of extended offensive effort because the capacity of its organic transport is low, and weapon crews are cut to a minimum. The replacement pool is small (100

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	7.62-mm Hv-MG	12.7-mm AA-MG	14.5-mm ATR	50-mm Mort	82-mm Mort	120-mm Mort	45-mm ATG	76-mm How	76-mm G	122-mm How	Trac	Tlr	Trk	Sp Veh	H-dr Veh	H	Ki	Rad
Hq & Hq Co	117	110	6	1														5		25	1	2
Rcn Tr	74		68	6																80		2
Sig Co	130	90	40															2	20	29	1	7
Engr Bn	164	149	15														4		9	18	1	2
CWS Co	40	25	15														2		6	10		1
Div Arty Regt	998	738	206	18			36						24	12	21	12	10	17	99	587	11	16
AT Bn, Mtz	233	172	43	6			18				12						39				2	11
AAMG Co, Mtz	97	67	30			18											18					
Repl Co	100	75	25	5			2	2	2		2								5	10		
Med Bn	90	90															9		25	31	1	
Vet Hosp	11	11																	2	2		
Bkry	63	63															3					
Trans Co	80	80															54				1	
3 R Regts	7,422	3,756	1,950	486	135		162	54	81	21	36	12					21	42	444	981	45	15
Total	9,619	5,426	2,398	522	135	18	218	56	83	21	50	12	24	12	21	12	160	66	610	1,773	63	56

Figure 3. Table of Organization and Equipment: Rifle Division.

men). Even moderate numbers of casualties greatly reduce its effectiveness (fig. 3).

The Red Army rifle division can be completely motorized by the addition of 1,200 trucks. If horses of the division were left behind, only 825 trucks are needed, 110 of which operate supply lines and tow guns.

Divisional artillery consists of a mixed field artillery regiment, an antitank battalion, and an antiaircraft machine gun company. The mixed artillery regiment includes 998 officers and enlisted men (fig. 4). It is armed with 122-howitzers and 76-mm guns. With the exception of the 122-mm howitzers, which are tractor drawn, and ammunition trucks, the regiment is horse drawn. Thus, divisional artillery, although it is lighter than that of the U. S. infantry division, is capable of providing close support to the rifle regiments in varying terrain and weather.

The divisional antitank battalion consists of headquarters, headquarters battery, three firing batteries—each with four 45-mm antitank guns—and a small train (fig. 5). During the last year of the war with Germany, the 45-mm antitank guns of the antitank battalion were often replaced by 57-mm antitank or 76-mm guns. It is expected that, in the future, this unit will be armed with light self-propelled artillery.

The divisional antiaircraft machine gun company is armed with eighteen 12.7-mm antiaircraft machine guns. It was reintroduced into the rifle division during the summer of 1944.

Ammunition and fuel for the divisional artillery

Unit	Off	EM	Total O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	14.5-mm ATR	76-mm G	122-mm How	Trac	Tlr	Trk	Sp Veh	H-dr Veh	H	Ki	Rad
Hq & Opns Stf	9	2	11	11											9		
Political Stf	3		3	3											1		
Sup Stf	13	4	17	17											5		
Hq Btry																	
Hq Plat	2	7	9	6	3										3		
Rcn Plat	1	14	15		15										15		
Sig Plat	1	25	26	21	5									5	13		
Topo Plat	1	20	21	18	3									2	9		
Sup Sec		9	9	9										2	6	1	
3 Bns	81	738	819	585	180	18	36	24	12	21	12	9	15	66	480	9	12
Med Plat	3	8	11	11									2	2	7		
Vet Sec	2	6	8	8										2	5		
Ord Wk Shop	3	9	12	12								1					
QM Wk Shop		6	6	6													
Trans Plat	1	30	31	31										20	34	1	
Total	120	878	998	738	206	18	36	24	12	21	12	10	17	99	587	11	12

Figure 4. Table of Organization and Equipment: Division Artillery Regiment.

comprise more than 50 percent of the total supply requirement of the division.

Two variations of the standard rifle division exist in the Red Army: the Guards Rifle Division, and the reduced division. The Guards Rifle Division differs from the standard division in that its supporting and service elements are slightly larger. Each Guards rifle regiment has an extra submachine gun company and its replacement pool is twice as large.

Unit	Off	EM	Total O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	14.5-mm ATR	45- or 57-mm ATG	Trk	Ki	Rad
Hq & Hq Btry	6	11	9	4	5	----	----	----	1	----	----
Recn Sec	----	8	8	4	4	----	----	----	1	----	----
Topo Sec	1	9	10	8	2	----	----	----	1	----	----
Sig Plat	1	17	18	12	6	----	----	----	2	----	2
3 Btrys	15	96	111	93	18	6	----	12	24	----	9
ATR Co	4	57	61	36	7	----	18	----	4	----	----
Am Plat	1	7	8	7	1	----	----	----	5	----	----
Sup Sec	----	8	8	8	----	----	----	----	1	2	----
Total	28	213	233	172	43	6	18	12	39	2	11

Figure 5. Table of Organization and Equipment: 45- or 57-mm Antitank Gun Battalion.

The reduced rifle division is based on emergency flexible Tables of Organization and Equipment which were authorized by the high command in November 1943. The actual size of the division ranged from 5,000 to 8,000 officers and enlisted men. The size was determined by the commander of an Army Group (Front) or of an independent army. Reduction of over-all strength of the rifle division was accomplished by a proportional reduction of all components.

A few mountain infantry divisions existed during the early months of the war with Germany. Each consisted of four mountain rifle regiments, 2,200 men each, and the same supporting and service units as the standard division. Mountain artillery regiments of the mountain division had 1,500 officers and enlisted men, organized into two mountain artillery battalions. Each battalion contained two mountain howitzer batteries and one mountain mortar battery. The division had an antiaircraft battalion, and relatively large supporting and service elements. Its total strength was approximately 12,800 men.

b. The rifle brigade. A great number of rifle brigades were activated during the winter of 1941–42. The majority of these brigades were disbanded or upgraded to divisions during the following year, and at the end of the hostilities few rifle brigades existed. A rifle brigade consists of three to five rifle battalions. Each battalion included three rifle companies, a submachine gun company, 82-mm mortar battery, antitank rifle company, machine gun company, and engineer, medical, transport, and ampule-thrower* platoons. In addition to the rifle battalions, the brigade has submachine gun, machine gun, artillery, mortar, and antitank gun battalions, and reconnaissance, engineer, signal, medical, and transport companies. Its strength is approximately 5,400 officers and enlisted men. Marine rifle brigades and emergency workers brigades were organized, in the same manner as the rifle brigades, from surplus naval personnel and workers pools.

c. The rifle regiment. The Red Army rifle regiment is an organization which contains the arms and minimum services necessary for the execution of independent combat missions. It has 2,474 officers and enlisted men. In contrast with 3,257 officers and enlisted men of the U. S. infantry regiment, it appears small. The difference is due mainly to smaller weapons crews and service elements. The Red Army rifle regiment is stronger than the U. S. infantry regiment in automatic weapons, especially submachine guns, and in medium and heavy mortars. But it is weaker in regimental artillery and antitank guns (fig. 6). Outstanding feature of the organization of the rifle regiment is the submachine gun company of 100 men, all armed with submachine guns.

With the exception of heavy mortars and signal equipment, which are motorized, all of the regimental weapons and transport are horse drawn. The regiment is free to maneuver in all kinds of weather and terrain. It is not road bound. The regiment is, however, incapable of extended independent combat, because the supply and maintenance capabilities of its organic transport are low. Even moderate casualties greatly reduce its effectiveness. The regiment is easily maneuverable. It requires only three 50-car trains for movement by rail.

The artillery commander of a rifle regiment has considerable fire power at his disposal. By combining the resources of the battalion artillery and mortars with organic regimental artillery, he can concentrate the fire of 27 medium mortars, 6 heavy mortars, 12 antitank guns, and 4 regimental howitzers.

*A flat-trajectory mortar which propels an incendiary "ampule" against armored vehicles up to ranges of 300 yards. Used by the Red Army in 1942–43, it has since been discarded.

Unit	Off	EM	Total O & EM	7.62-mm Snip-er's R	7.62-mm R & Cbn	7.62-mm SAR	7.62-mm SMG	7.62-mm LMG	7.62-mm HvMG	14.5-mm ATR	50-mm Mort	82-mm Mort	120-mm Mort	45-mm AT G	76-mm How	Sp Veh	H-dr Veh	H	Ki	Rad
Hq & Stf	29	13	42		4	7	4									7		8	2	
Rcn Co	3	34	37	2		15	20											12		
SMG Co	7	93	100				100													
ATR Co	6	67	73		20		26			27							3	6		
Sig Co	6	44	50		40		10									3	6	11		5
Engr Plat	1	19	20		1	10	9										1	2		
3 R Bns	114	1,743	1,857	54	387	495	435	162	45	27	18	27		6		3	81	129	9	
AT Btry	6	49	55		43		12							6			2	26		
How Btry	7	67	74		59		15								4		13	49	2	
Mort Btry	6	59	65		52		14						7			8				
Med & Vet Co	4	32	36		17												9	17	1	
Ord & QM Shop	2	12	14		5															
Trans Co	5	34	39		31		3										29	60	1	
CWS Plat	1	11	12		10		2										4	7		
Total	197	2,277	2,474	56	669	527	650	162	45	54	18	27	7	12	4	21	148	327	15	5

Figure 6. Table of Organization and Equipment: Rifle Regiment.

The Guards Rifle Regiment differs from the standard rifle regiment in that it is upgraded in personnel, and made stronger in light and heavy automatic weapons (fig. 7). It has two submachine gun companies. The machine gun companies of its battalions have 12 heavy machine guns, instead of the 9 in the company of a standard battalion. The antitank rifle platoon of the Guards Rifle Battalion has 16 antitank rifles, as compared with 9 of the standard battalion. Thus, a Guards Rifle Regiment is able to put more men in the forward lines, and is capable of more extended action than is the standard rifle regiment.

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	7.62-mm HvMG	14.5-mm ATR	50-mm Mort	82-mm Mort	120-mm Mort	45-mm ATG	76-mm How	Trk	H-dr Veh	H	Ki	Rad
Hq & Stf	46	42	4									8		10	2	
Rcn Co	40	20	20											20		
2 SMG Co	200		200													
ATR Co	73	20	26			27							3	6		
Sig Co	55	40	15									4	6	11		5
Engr Co	27	18	9										2	4		
3 R Bns	1,981	1,179	548	162	54	48	18	27		6		3	90	156	9	
AT Btry	55	43	12							6			2	26		
How Btry	95	80	15								4		17	65	2	2
Mort Btry	70	54	16						8			8				1
Ord Shop	14	14														
QM Plat																
Med Co	34	34											9	18	1	
Vet Plat	3	3											1	1		
CWS Plat	12	10	2										4	7		
Trans Co	43	40	3										33	66	1	
Total	2,748	1,597	870	162	54	75	18	27	8	12	4	23	167	390	15	8

Figure 7. Table of Organization and Equipment: Guards Rifle Regiment.

d. Rifle battalion. Basic organizational element of the infantry arm is the rifle battalion. It consists of headquarters, three rifle companies, antitank rifle platoon, mortar company, machine gun company, antitank gun platoon, and a medical unit (fig. 8). Its strength is 619 officers and enlisted men. The battalion is the lowest administrative and housekeeping unit of the infantry arm maintaining a kitchen, a repair shop, a medical unit, and a pharmacy for its subordinate units. With its light transport, organic supporting mortars, and light artillery, it is well suited for outflanking and infiltrating tactics in any terrain.

In comparison with the U. S. infantry battalion, the Red Army rifle battalion is weaker in personnel and weapons, except light automatic weapons and medium mortars. The outstanding feature of the armament of the rifle battalion is its large number of submachine guns.

Unit	Off	EM	Total O & EM	7.62-mm Sniper's R	7.62-mm R	7.62-mm SAR	7.62-mm SMG	7.62-mm LMG	7.62-mm HvMG	14.5-mm ATR	50-mm Mort	82-mm Mort	45-mm ATG	Bcl	H-dr Veh	H	Ki
Hq	4		4				4										
Sig Plat	1	9	10		9		1							1	1	1	
3 R Cos	18	411	429	18	15	165	114	54	6		6				3	3	
MG Co	6	52	58		29		14		9						6	9	
ATR Plat	1	22	23		10		4			9					1	2	
Mort Co	6	55	61		41		5					9			9	9	
G Plat	1	16	17		12		3						2		2	4	
Med Plat		5	5		4										1	1	
Sup Plat	1	11	12		9										4	14	3
Total	38	581	619	18	129	165	145	54	15	9	6	9	2	1	27	43	3

Figure 8. Table of Organization and Equipment: Rifle Battalion.

Supply and maintenance capabilities of the rifle battalion are small. For more than a day of light combat it must be assisted by regimental or divisional services. A rifle battalion can be easily moved. One truck company (100 SIS–5 trucks) can carry a complete battalion with sufficient rations, forage, and ammunition for 7 to 8 days of heavy combat.

Two variations of the rifle battalion—the motorized rifle battalion and the motorized submachine gun battalion—constitute the infantry element of the motorized and the tank brigade respectively. The motorized rifle battalion differs from the standard battalion in that it has additional antitank rifle, antitank gun, and submachine gun platoons. It has six instead of nine 82-mm mortars. Its strength is 662 officers and enlisted men. The motorized submachine gun battalion, a part of the tank brigade, is smaller than the standard rifle battalion. It lacks the machine gun company, and has six instead of nine 82-mm mortars. But, like the motorized rifle battalion, it has additional antitank rifle and antitank gun platoons.

3. ARMORED AND MECHANIZED FORCES

a. Armored forces. Tactical units of the Red Army armored forces are organized into tank corps, tank brigades, and independent heavy tank regiments and battalions.

TANK CORPS. A tank corps usually forms a part of the mobile striking forces of the commander of a Front or an army. It is used to deliver a decisive blow on a narrow sector, and in cooperation with other arms to exploit a break-through. A tank corps is an example of a Soviet practice of building a formation from standard organizational elements. The tank corps consists of three tank brigades, one motorized rifle brigade, six artillery regiments of various calibers, and supporting arms and services (fig. 9). Tank corps may differ in the number of organic self-propelled artillery regiments. They may vary between one and four per tank corps.

Red Army tank corps are comparable in strength and armament with U. S. armored divisions. They have fewer tanks than the U. S. division (200 as compared with 272) and fewer self-propelled guns (40 compared with 62). However, many of the Soviet tanks and self-propelled mounts are heavier gunned than the corresponding weapons of a U. S. armored division. Organic artillery weapons, including medium and heavy mortars and rockets, of the tank corps outnumber those of the U. S. armored division by more than 2½ to 1.

Transport and ammunition companies of a tank corps carry two rations, two refills of fuel, and one-half unit of fire for all of its organic and attached units. It can maintain them for 5 or 6 days of moderate combat. Its maintenance and repair shops operate approximately 30 miles behind the front lines. Major repairs involving exchange of motors, gun tubes, welding of armor, and manufacturing and fitting some spare parts are effected in these shops.

TANK BRIGADE. The mission of a tank brigade is destruction of hostile infantry by means of fire and shock action. A tank brigade usually forms a part of a tank corps. In operations, it is supported by a portion of the tank corps' self-propelled artillery, and can be compared with a combat command of a U. S. armored division. A tank brigade is also built from standard organizational elements, including three

tank battalions, a motorized submachine gun battalion, an antiaircraft machine gun company, and services (fig. 10). Maneuverability of a tank brigade is good. Although its service echelon is road bound, Soviet tanks with their wide tracks and high clearance can operate in difficult terrain. Without its support and service group, the tank brigade has limited supply capabilities. They are sufficient for only a few hours of operation. The service group extends these capabilities to a day or two of moderate combat. With corps resources, a tank brigade can be committed to moderate combat for 5 or 6 days.

A tank brigade has two recovery tractors and a mobile repair shop for effecting minor repairs as near the front lines as possible.

MOTORIZED RIFLE BRIGADE. The mission of the motorized rifle brigade is to support tanks in breakthrough or pursuit operations, to hold captured terrain objectives, and to protect the tanks from hostile infantry and antitank weapons. The motorized rifle brigade is, in fact, a reinforced rifle regiment, motorized. It consists of headquarters, three motorized rifle battalions, a powerful mechanized reconnaissance company, a mortar and a field artillery battalion, an antitank rifle, submachine gun, and antiaircraft machine gun companies, and services (fig. 11). The proportion of services to infantry and supporting arms in the motorized brigade is about twice as large as in the rifle regiment. An important feature of the organization of the motorized rifle brigade is the engineer mine company, whose mission is to establish offensive antitank minefields. The motorized rifle brigade is tactically mobile on roads and easy terrain, and is easily maneuverable.

ARTILLERY OF THE TANK (AND MECHANIZED) CORPS. The artillery commander of the tank and mechanized corps has at his disposal six artillery units armed with a variety of weapons. The mission of this artillery is to support tanks and motorized infantry in mobile operations. The type and relative proportion of artillery weapons were selected so as to achieve maximum flexibility and shock power of artillery fire without impairing the mobility and maneuverability of the corps. The greater part of the tank and mechanized corps artillery consists of flat trajectory weapons. Their fire against hostile infantry and area targets is supplemented by heavy mortars and rockets. The 152-mm self-propelled gun-howitzer regiment executes long-range, as well as direct, support missions.

Unit	Total O & EM	7.62-mm SAR, R & Cbn	7.62-mm SMG	7.62-mm LMG	7.62-mm HvMG	12.7-mm AAMG	14.5-mm ATR	82-mm Mort	120-mm Mort	37-mm AA G	45-mm or 57-mm AT G	76-mm G	SU 85 (85-mm SP G)	SU 152 (152-mm SP G/How)	132-mm RL	Flame Thrower	T-34/85 Tk	Armd C	Armd Pers Cart	Trac	Tlr	Trk	Sp Veh	Mtrcl	Kl	Bkry	Rad
Corps Hq	130	82	72	4													3					10		1			
3 Tk Brigs	3,918	2,076	900	75	12	27	72	18			12	12					195	9		33		345	90	36	27		279
Mtz R Brig	3,238	1,707	955	165	35	9	81	30	6		12	12						7	10			299			17		44
85-mm SP Arty Regt (L)	440	150	240	11			18						20				1	1		2		42	2	7	2		27
152-mm SP Arty Regt (Hv)	476	162	270	11			18							20			1	1		2		47	2	7	2		31
76-mm TD Arty Regt	546	450	50	12								24									24	84	17		8		28
37-mm AAAW Regt	397	295	102			16				16												56			2		8
120-mm Mtz Mort Regt	489	395	37	18					36						8							72	9		5		16
Rkt Bn	213	190	23			3	18				12									4		9			1		4
Mtz AT Arty Bn	253	172	43	6							10											39	17		2		11
Ren Bn	220	139	72	24				4								10		13	33			19	43		2		6
Mtrcl Bn	288	139	92	56																		12	1		1		6
Sig Bn	250	200	50																			40			1		10
Engr Bn	290	225	50	24																		25			1		
Corps Serv	(836)	(798)	(31)	(9)																		270	(120)		5	2	
Total	11,964	7,180	2,963	415	47	55	207	52	42	16	46	48	20	20	8	10	200	31	43	41	24	1,369	241	110	78	2	470

Figures in parentheses are approximations.

Figure 9. Table of Organization and Equipment: Tank Corps.

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	7.62-mm HvMG	14.5-mm ATR	12.7-mm AAMG	82-mm Mort	45-mm AT G	76-mm G	T-34/86 Tk	Armd C	Rad	Trac	Trk	Mtrcl	Sp Veh	Ki
Hq	22	8									2		2		1	3		
Hq Co																		
Rcn Plat	43	19	21	3								3	3		3	3		
Engr Plat	35	24	6	3											3			
CWS Plat	25	22	3												1	3		
Hq Plat	12	5	6	1												3		
Sup Sec	12	12													1			1
Sig Plat	30	15	5										5		2			
3 Tk Bns	441	130	90								63		72	6	15		18	3
Mtz SMG Bn	403	228	138	18	4	6		6	4				7		30			3
ATR Co	44	21	10			18							1		2			
AT Btry	52	42	10							4			1		4			1
AA Co	48	37	1				9						1		9			
Ord & Maint Co	125	115	10										1	5	42		12	1
Med Plat	14	14													2			
Total	1, 306	692	300	25	4	24	9	6	4	4	65	3	93	11	115	12	30	9

Figure 10. Table of Organization and Equipment: Tank Brigade.

Including artillery and mortars of the tank and motorized brigades (except tank guns), the artillery commander of the tank corps has 232 pieces of artillery and 8 multiple rocket launchers at his disposal. The weight of a single salvo of these weapons is more than 5 tons, and if the fire of tank guns is included it is more than 7 tons.

Normally, two of the artillery regiments are self-propelled. These are a light 85-mm regiment and a heavy 152-mm gun-howitzer regiment (figs. 12 and 13). The mission of these regiments is close support of tanks. Normally direct fire is used. However, both regiments have sufficient personnel and equipment to conduct indirect fire against distant targets.

The tank destroyer regiment is a part of the tank, mechanized, and cavalry corps. It also may be independent or a part of a tank destroyer brigade. It consists of headquarters, headquarters battery, five or six firing batteries, and regimental services (fig. 14). Each firing battery has four 76-mm guns. Some regiments, however, were encountered which

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	7.62-mm HvMG	12.7-mm AAMG	14.5-mm ATR	82-mm Mort	120-mm Mort	45-mm AT G	76-mm G	Armd Veh	Armd Pers Carr	Trk	Ki	Rad
Brig Hq	69	69												7		
Hq Co																
Sig Plat	30	30												3		5
CWS Plat	11	11												1		
Hq Plat	25	16	7	2										2		
Serv Plat	7	7												1	1	
3 Mtz R Bns	1, 986	807	723	135	27		54	18		12				129	9	21
Mort Bn	199	165	9					12	6					22	1	5
Arty Bn	224	134	63	12							12			27	3	6
ATR Co	60	27	6				27							3		1
SMG Co	94	1	93											5		1
Rcn Co	144	74	48	10	8							7	10	4		4
Ord & Maint Co	72	72												6		
Engr Mine Co	121	109	6	6										9	1	
Trans Co	109	109												66	1	
Med Plat	39	39												5	1	
AAMG Co	48	37				9								9		1
Total	3, 238	1, 707	955	165	35	9	81	30	6	12	12	7	10	299	17	44

Figure 11. Table of Organization and Equipment: Motorized Rifle Brigade.

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	14.5-mm ATR	SU 85 (85-mm SP G)	T-34/85 Tk	Armd C	Trac	Trk	Mtrcl	Sp Veh	Ki	Rad
Hq	20	13	7				1			5				2
Rcn Plat	30	11	16	2				1		2				
Sig Plat	15	10	5							2				
Engr Plat	20	15	5							2				
4 SP Btrys	140		120			20					5			25
SMG Co	79		70	9						1	1			
ATR Co	61	36	7		18					2				
Ord & Maint Shop	30	20	10						2	2	1	2		
Am Plat	18	18								16				
Fuel Plat	10	10								7				
Sup Sec	10	10								2			2	
Med Plat	7	7								1				
Total	440	150	240	11	18	20	1	1	2	42	7	2	2	27

NOTE.—Antitank rifles, engineers, and submachine guns may be assigned from parent formations. The organic strength is, in that case, approximately 300.

Figure 12. Table of Organization and Equipment: Self-Propelled Artillery Regiment.

had six guns in each battery. This regiment is completely motorized. The ammunition columns of the tank, mechanized, and cavalry corps carry a full unit of fire for the tank destroyer artillery regiments, but only one-half a unit of fire for their other components.

The light antiaircraft artillery regiment may be a part of the tank and mechanized corps, antiaircraft artillery division, or may be independent. It consists of headquarters, headquarters battery, four firing batteries and regimental services (fig. 28). Its strength in armament and personnel is approximately half that of a U. S. antiaircraft automatic weapons mobile battalion.

The motorized mortar regiment may be a part of the tank and mechanized corps or the mortar artillery brigade, or it may be independent. It consists of headquarters and headquarters battery, two mortar battalions, and regimental services (fig. 26). Missions of heavy mortars are outlined in the discussion of the mortar brigade.

The rocket battalion is a part of a tank and mechanized corps, and a part of the rocket regiment. In the tank corps, the mission of the rocket battalion is to support the advance of tanks and motorized infantry. It generally engages area targets, employing HE projectiles against personnel, and incendiary projectiles against buildings and supply areas. The rocket battalion is highly maneuverable on roads and easy terrain.

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	14.5-mm ATR	SU 100 or 152 (100-mm SP G or 152-mm SP G/How)	T 34/85 Tk	BA-64 Armd C	Trac	Trk	Mtrcl	Sp Veh	Ki	Rad
Hq	20	13	7				1			5				2
Hq Btry														
Rcn Plat	34	11	16	2				1		2				
Sig Plat	15	10	5							2				
Engr Plat	20	15	5							2				
4 SP Btrys	160		140			20					5			29
SMG Co	79		79	9						1	1			
ATR Co	61	36	8		18					2				
Maint & Ord Plat	30	20	10						2	2	1	2		
Am Plat	30	30								21				
Fuel Plat	10	10								7				
Sup Plat	10	10								2			2	
Med Plat	7	7								1				
Total	476	162	270	11	18	20	1	1	2	47	7	2	2	31

Figure 13. Table of Organization and Equipment: Heavy Self-Propelled Regiment.

Unit	Off	EM	Total O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	76-mm G	Trac	Tlr	Trk	Sp Veh	Ki	Rad
Hq & Opns Stf	10	2	12	12						2			
Political Stf	3		3	3									
Sup Stf	7	8	15	15						2			
Hq Btry													
Hq Plat	1	7	8	4	4					1			
Rcn Plat	1	16	17	12	5					2			
Sig Plat	1	20	21	16	5					5			10
Sup Sec		7	7	7						1		1	
6 76-mm G Btrys	36	348	384	312	36	12	24		24	48		6	18
Med Plat	3	8	11	11						1	1		
Ord Wk Shop	3	9	12	12						1	1		
QM Wk Shop		7	7								1		
Trans Plat	2	44	46	46						20	14		
Sup Sec		3	3							1		1	
Total	67	479	546	450	50	12	24		24	84	17	8	28

Figure 14. Table of Organization and Equipment: Tank Destroyer Artillery Regiment (Towed).

The antitank gun battalion of the tank, mechanized, and cavalry corps is armed with twelve 45-mm antitank guns, eighteen antitank rifles, and other small arms (fig. 5). It is completely motorized. Its

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	BA-10 Armd C	BA-64 Armd C	Trk	Mtrcl	Ki	Rad
Hq	8	5	3				2			
Hq Co										
Sig Plat	20	10	5				2	2		3
Engr Sqd	11	15	5				2			
CWS Sqd	7	8	2				1			
Sup Sec	7	7					1		1	
Hq Plat	12	6	6	1		3				
2 Rcn Co	150	83	51	23	10		9	15	1	3
Sup Sec	5	5					2			
Total	220	139	72	24	10	3	*19	17	2	6

*Including ten armored personnel carriers.

Figure 15. Table of Organization and Equipment: Reconnaissance Battalion.

mission is to protect the headquarters and principal supply installations of the corps against infiltrating light armored vehicles. It is likely that the 45-mm antitank guns of this unit will be replaced by 57- or 76-mm guns, or by light self-propelled artillery.

Other supporting arms and services of the tank and mechanized corps consist of a reconnaissance battalion, motorcycle battalion, signal battalion, engineer battalion, chemical warfare company, water and fuel column, transport company, field bakery, and a medical battalion.

The reconnaissance battalion consists of headquarters and headquarters company, two mechanized reconnaissance companies, and a supply platoon (fig. 15). The motorcycle battalion (fig. 16) is the only organic unit of the Red Army field organization to contain flame throwers. Its missions are varied, including reinforcement of the reconnaissance battalion, flank security, protection of lines of communications, and reduction of small, bypassed enemy forces.

(Organization of the engineer, signal, medical, and other service units is described in Section III, Technical Services.)

b. Mechanized forces. In the Red Army the term, "mechanized," is applied to a team of motorized infantry, tanks, and artillery in which the infantry element predominates. There are two such formations in the Red Army: the mechanized corps, and the mechanized brigade.

MECHANIZED CORPS. A mechanized corps forms a part of a mobile reserve for the commander of a

Unit	O & EM	7.62-mm SAR, R, &, Cbn	7.62-mm SMG	7.62-mm LMG	82-mm Mort	Flame Thrower	Trk	Mtrcl	Ki	Rad
Hq & Sig	8	5	3				1	1		2
Engr Sqd	7	5	2							
Serv & Trans Sqd	8	8					1		2	
2 Mtrcl Cos	146	48	64	48				42		2
Mtz Co	61	36	16	8			4			1
Flame Thrower Plat	22	10	2			10	2			
Mort Plat	36	27	5		4		4			1
Total	288	139	92	56	4	10	12	43	2	6

Figure 16. Table of Organization and Equipment: Motorcycle Battalion.

Front or an army. Its primary mission is to exploit a break-through, pursuit, or a counterattack. A mechanized corps is composed of organizational elements which include three mechanized brigades, one

tank brigade, six artillery regiments, and supporting arms and services (fig. 17). As in a tank corps, the number of self-propelled artillery regiments in a mechanized corps may vary between one and four. The calibers and types of artillery weapons also may vary. For example, the motorized heavy mortar regiment may be replaced by a 122-mm howitzer regiment. There is no organization in the U. S. Army which is comparable to the Red Army mechanized corps.

The artillery commander of a mechanized corps has 336 artillery pieces at his disposal. These pieces include the artillery and mortars of the mechanized and tank brigades, but exclude tank guns. The weight of a single salvo from these weapons is more than 6½ tons. If tank guns are included, it is more than 8½ tons. (For discussion of the supporting artillery units of the mechanized corps, see Artillery of the Tank Corps.)

Tactical mobility of a mechanized corps is good except in swamps, wooded terrain, deep snow, or during heavy thaws. A mechanized corps carries sufficient ammunition, rations, and fuel to sustain all of its components for 5 or 6 days of moderate combat. Transport and ammunition companies of the mechanized corps carry two rations, two refills of fuel, and one-half unit of fire for all its organic and attached units. As in the tank corps, its repair and maintenance shops operate approximately 30 miles behind the front lines. They are capable of effecting major repairs to vehicles and ordnance such as the replacing of motors and gun tubes, welding armor, and manufacturing and fitting some parts for vehicles and weapons.

MECHANIZED BRIGADE. A mechanized brigade, a part of a mechanized corps, consists of a motorized brigade (fig. 11), and a tank regiment (fig. 18). On roads or easy terrain, the mechanized brigade is extremely mobile, and capable of wide, bold maneuvers. Typically, it fights on or near roads. With organic transport and services alone, the supply and maintenance capabilities of the brigade is low. It has, however, two to four Type B mobile repair shops. The tank regiment has two recovery tanks which endeavor to repair slightly damaged tanks on the battlefield and tow more severely damaged ones under cover.

TANKS AND SELF-PROPELLED ARTILLERY. The basic organizational elements of the tank arm of the Red Army are the medium tank regiment, the

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	7.62-mm HvMG	12.7-mm AAMG	14.5-mm ATR	82-mm Mort	120-mm Mort	37-mm AA G	45-mm or 57-mm AT G	76-mm G	SU 85 (85-mm SP G)	SU 152 (152-mm SP G/Howr)	RL M13	Flame Thrower	T-34/85 Tk	Armd C	Armd Pers Carr	Trac	Tlr	Tk	SP Veh	Mtrcl	Kl	Bkry	Rad	
Corps Hq	130	82	48	4													3	30		6		10			1		28	
3 Mecz Brigs	11,343	6,009	3,492	531	105	27	297	90	18		36	36					123	3		11		1,038	36	36	57		96	
Tk Brig	1,306	692	300	25	4	9	24	6			4	4	4				65	1		2		115	30	12	9		27	
SP Arty Regt (M)	440	150	240	11			18						20	20			1	1		2		42	2	7	2		31	
SP Arty Regt (Hv)	476	162	270	11			18														24	47	2	7	2		28	
TD Arty Regt	546	450	50	12		16				16		24										84	17		8		8	
AAAW Regt	397	295	102																			56			2		16	
Mtz Mort Regt	469	395	37	18					36						8					4		72	9		5		4	
Rkt Bn	213	190	23			3	18				12											9			1		11	
AT Arty Bn	233	172	43	6												10		13	35			39		17	2		6	
Recn Bn	220	139	72	24				4														19		43	2		6	
Mtrcl Bn	288	139	92	56																		12	1		2		10	
Sig Bn	250	200	50																			40			1			
Engr Bn	290	225	50	24																		25			1			
Corps Serv	836	798	31	9																		270	(120)		5	2		
Total	17,457	10,098	4,900	731	109	55	375	100	54	16	52	64	20	20	8	10	192	48	35	25	24	1,878	217	122	100	2	525	

Figure 17. Table of Organization and Equipment: Mechanized Corps.

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	14.5-mm ATR	T-34/85 Tk	BA-64 Armd C	Trac	Trk	Fuel Trk	Mtrcl	Sp Veh	Ki	Rad
Hq	12	7	5	1		1			2		5			1
Hq Co:														
Hq Plat	18	6	6								3			
Recn Plat	31	10	16	2			3		2					1
Engr Plat	27	26	1											
Sig Plat	19	17	2						2					3
4 Tk Cos	168	80	88			40					4			44
SMG Co	75		66	9					1					1
ATR Co	61	28	15		18				1					
Trans & Maint Co	105	95	10					2	42	8		2		1
Sup Plat	20	20							3				2	
Med Plat	7	7							2					
Total	543	296	209	12	18	41	3	2	55	8	12	2	2	51

Figure 18. Table of Organization and Equipment: Tank Regiment.

heavy tank regiment, and the tank battalion. Regimental organizational elements are found in the mechanized brigade and as independent heavy tank regiments. The first type of regiment (approximately equivalent to the U. S. tank battalion) is a balanced organization with its own reconnaissance, engineer, signal, and maintenance units. A submachine gun company protects the tanks from hostile infantry. This tank regiment is organic to a mechanized brigade, thus completing the tank-infantry-artillery team of that organization.

The second type of Red Army tank regiment is the independent heavy tank regiment. Such regiments always are controlled by the commander of a Front or an army, and are allotted to subordinate formations according to their needs. A heavy tank regiment consists of four companies each with five heavy tanks, a submachine gun platoon for protection of the tanks from hostile infantry, a headquarters company, and relatively large supply and maintenance units. It is used to support infantry and medium tanks during attacks on heavily fortified positions, and as heavy artillery in support of mobile operations.

Initial supply requirement of a heavy tank regiment is 88 tons. Daily resupply requirement in heavy combat is 48 tons. Rail movement of a heavy tank regiment requires one 40-car train.

TANK BATTALIONS. Two types of tank battalions exist in the Red Army. They are the independent tank battalion and the tank battalion which is organic to a tank brigade. The independent tank battalions are few in number, and they are generally equipped with older model tanks. Their organization is not uniform. They differ from the organic tank battalions of a tank brigade in that in addition to the tank companies and ammunition platoons, they have engineer, smoke, medical, and service platoons. The independent tank battalions have the same mission as the independent tank regiments discussed above. It is believed that the latter have displaced the independent tank battalions in the Red Army organization.

Tank battalions which are organic to a tank brigade generally consist of two companies of medium tanks, a headquarters with one tank, and an ammunition platoon. Some battalions, however, have three companies. In that event, there are only two such battalions to a tank brigade.

In the Red Army, self-propelled artillery is a part of the tank and mechanized forces. Organization of the self-propelled artillery regiments reflects tank rather than artillery doctrine. In fact, the organization of the heavy tank regiment is the same as that of the heavy self-propelled artillery regiment (fig. 13). It has the same supply requirements and capabilities, and the same mobility. The medium self-propelled artillery regiment is a smaller version of the heavy regiment.

4. ARTILLERY

The artillery of the Red Army is organized into corps, divisions, brigades, regiments, and battalions. (The artillery corps was discussed in Section I, Corps.)

The artillery division is a base of fire for major offensive and counteroffensive operations. It is es-

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	12.7-mm AAMG	14.5-mm ATR	120-mm Mort	76-mm G	122-mm How	122-mm G	152-mm How	152-mm G/How	Trac	Tlr	Trk	Sp Veh	Mtrcl	Ki	Rad
Hq & Hq Btry	(250)	200	(50)												35	5	5	1	
L Arty Brig	2,063	1,772	255	36	3	72		72					18	72	280	50		25	82
How Brig	2,242	1,892	362	36	9	72			48		24		158	136	214	36		24	78
MG Brig	2,128	1,396	308	18	9	36				12		24	86	76	191	18		17	66
Hv Mort Brig	1,705	1,397	135	54	3	108	108								268	35		16	52
Arty Obsn Bn	300	300													(25)	(15)		2	(6)
Sig Bn	255	200	(55)												(15)	(1)	(24)	1	(10)
Serv	(800)	750	(50)											(10)	(75)	(8)		4	
Total	9,743	7,907	1,215	144	24	288	108	72	48	12	24	24	262	294	1,103	168	29	90	294

Figures in parenthesis are approximations.

Figure 19. Table of Organization and Equipment: Artillery Division.

sentially a task force headquarters with permanent planning, fire control, reconnaissance, intelligence, and liaison staffs. It has adequate technical and service personnel for effective employment of 24 to 36 firing battalions. The number, type, and caliber of its component units depend primarily on its mission. It may be reinforced by GHQ heavy artillery regiments, aviation units, antiaircraft artillery and rocket regiments, army transport, and service units. A typical artillery division is shown in Figure 19.

Tactically and strategically, the artillery division is not highly mobile. It requires extensive engineer assistance for road and bridge maintenance, preparation of firing positions, camouflage, and constructions of shelters for personnel and equipment. Much of its equipment is tracked. Single units of this equipment weigh up to 35,000 pounds.

In addition to the artillery division described above, there are also the specialized weapons-artillery divisions, including the heavy gun division, and the antiaircraft artillery division. Little is known of the heavy gun divisions. Presumably they consist of several heavy artillery brigades.

The antiaircraft artillery division consists of three 37-mm antiaircraft automatic weapons regiments, an 85-mm gun regiment, and divisional troops (fig. 20). The 85-mm gun regiment is approximately equal in personnel and armament to the U. S. 90-mm gun battalion. The 37-mm antiaircraft automatic weapons regiment is approximately equal to half a U. S. antiaircraft automatic weapons battalion. Thus, the Red Army antiaircraft division corresponds roughly to a U. S. automatic antiaircraft weapons group. One antiaircraft artillery division is generally assigned to each operational army, and one or more to each Army Group (Front). In addition to their primary mission of antiaircraft defense of important installations and troop concentrations, antiaircraft artillery units are used for antitank defense, support of ground troops by direct fire against targets whose destruction requires high-velocity fire, and less often for indirect fire against general ground targets. An antiaircraft artillery division is completely motorized and has good strategic mobility.

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	12.7-mm AAMG	37-mm AA G	85-mm AA G	Trac	Trk	Sp Veh	Ki	Rad
Hq and Stf	60	40	20					6			
Hq Btry											
Recn Plat	12		12					1			
Topo Plat	18	15	3					2			
Sig Plat	35	30	5					4			4
Sup Sec	7	7						1		1	
3 37-mm AAAW Regts	1,191	885	306	48	48			168	3	6	24
85-mm AAA Regt	620	464	110	16		16	16	68	2	3	13
Am Plat	45	45						22			
Fuel Plat	6	6							5		
Ord Wk Shop	15	15						1	1		
Mtr Wk Shop	10	10						1	1		
Sup Sec	10	10						2		1	
Med Plat	14	14						2			
Total	2,043	1,541	456	64	48	16	16	278	12	11	41

Figure 20. Table of Organization and Equipment: Antiaircraft Artillery Division.

a. Artillery brigades. An artillery brigade is a permanent tactical unit comprising a headquarters and a headquarters battery, two or three artillery regiments, and a service train. The headquarters battery has reconnaissance, survey, fire control, signal. and service platoons aggregating between 70 and 85 officers and enlisted men. The service train contains an ammunition platoon, ordnance and maintenance shops, fuel platoon, service and administrative platoon, and a small medical unit. An ar-

Unit	Off	EM	Total O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	12.7-mm AAMG	76-mm G	Trac	Tlr	Trk	Sp Veh	Ki	Rad
Hq & Opns Stf	20	5	25	25							4	2		
Political Stf	3		3	3								1		
Sup Stf	10	10	20	20							4	1		
Hq Btry:														
Hq Plat	1	11	12	6	6						1			
Recn Plat	1	16	17	12	5						2			
Sig Plat	1	34	35	30	5						3			4
Topo Plat	1	20	21	16	5						3			
AA Plat	1	15	16	13	3		3				3			
Sup Sec		7	7	7							1		1	
3 76-mm G Regts	228	1, 623	1, 851	1, 584	231	36		72	12	60	243	42	24	78
Med Plat	3	8	11	11							1	1		
Am Colm	1	20	21	21					6	12	12			
Wk Shops	6	18	24	24							3	3		
Total	276	1, 787	2, 063	1, 772	255	36	3	72	18	72	280	50	25	82

Figure 21. Table of Organization and Equipment: Light Artillery Brigade, Motorized.

tillery brigade may be independent or a part of an artillery division.

LIGHT ARTILLERY BRIGADE. A light artillery brigade generally forms a part of an artillery division. It is armed with seventy-two 76-mm guns, which are characterized by good muzzle velocity and great maneuverability. It is employed in close support of infantry and tanks, especially for direct fire. Its primary missions are destruction of personnel, infantry and light artillery weapons, and light field fortifications. A light brigade consists of three light artillery regiments, and brigade troops (fig. 21). The independent tank destroyer brigade is a variation of the light artillery brigade in which the firing batteries are controlled by the regimental headquarters. Battalion headquarters are eliminated.

LIGHT HOWITZER BRIGADE. A light howitzer brigade may be either independent or a part of an artillery division. It is armed with 122-mm howitzers and their companion pieces, the 152-mm howitzers. The 122-mm howitzer is characterized by great flexibility in muzzle velocity and trajectory, effective burst, and good maneuverability. The 152-mm howitzer has a lower rate of fire, greater burst, and slightly greater range than the 122-mm howitzer.

The brigade may be used for any mission except destruction of strong fortifications, or long-range fire. Its primary missions include destruction of

Unit	Off	EM	Total O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	12.7-mm AAMG	122-mm How	152-mm How	Trac	Tlr	Trk	Sp Veh	Ki	Rad
Hq & Opns Stf	20	5	25	25								4	2		
Political Stf	3		3	3									1		
Sup Stf	10	10	20	20								3	1		
Hq Btry:															
Hq Plat	1	11	12	6	6							1			
Recn Plat	1	15	16	11	5							2			
Sig Plat	1	24	25	20	5							3			4
Topo Plat	1	20	21	16	5							3			
AA Plat	1	15	16	13	3		3					3			
Sup Sec		7	7	7								1		1	
2 122-mm How Regts	212	1, 820	2, 032	1, 706	338	36	6	48	24	146	112	176	28	22	74
Med Plat	3	8	11	11								1	1		
Am Plat	1	24	25	25						12	24	12			
Wk Shops	6	18	24	24								3	3		
Sup Sec		5	5	5								2		1	
Total	260	1, 982	2, 242	1, 892	362	36	9	48	24	158	136	214	36	24	78

Figure 22. Table of Organization and Equipment: Light Howitzer Brigade.

Unit	Off	EM	Total O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	12.7-mm AAMG	122-mm G	152-mm G/How	Trac	Tlr	Trk	Sp Veh	Ki	Rad
Hq & Opns Stf	20	5	25	25								4	2		
Political Stf	3		3	3									1		
Sup Stf	10	10	20	20								4	1		
Hq Btry															
Hq Plat	1	11	12	6	6							1			
Rcn Plat	1	15	16	11	5							2			
Sig Plat	1	24	25	20	5							3			4
Topo Plat	1	20	21	16	5							3			
AAMG Plat	1	15	16	13	3		3					3			
Sup Sec		7	7	7								1		1	
2 Medium G Regts	226	1, 692	1, 918	1, 210	284	18	6	12	24	74	52	152	10	16	62
Med Plat	3	8	11	11								1	1		
Am Plat	1	24	25	25						12	24	12			
Wk Shops	6	18	24	24								3	3		
Sup Sec		5	5	5								2			
Total	274	1, 854	2, 128	1, 396	308	18	9	12	24	86	76	191	18	17	66

Figure 23. Table of Organization and Equipment: Medium Gun Brigade.

personnel in the open and in shelters; accompanying and antipersonnel barrages and concentrations; neutralization of light fortifications, mortars, and light artillery weapons; and fire reconnaissance. Additional missions include destruction of minefields, antitank ditches, and medium field fortifications. A light howitzer brigade consists of two howitzer regiments, and brigade troops (fig. 22).

MEDIUM GUN BRIGADE. The medium gun brigade consists of two medium gun regiments, and brigade troops (fig. 23). It is armed with 152-mm gun-howitzers and their companion pieces, the 122-mm guns. The 152-mm gun-howitzer is characterized by greater penetration, lower rate of fire, and, except with the self-propelled mount *KV*, considerably less maneuverability than the 152-mm howitzer. The 122-mm gun is characterized by high muzzle velocity, great penetration and range, good rate of fire, and only moderate maneuverability.

The brigade is used against targets which are beyond the range and capabilities of the light howitzer brigade. Its primary missions are destruction or neutralization of artillery and armored trains, neutralization or interdiction of distant targets, destruction of field fortifications, fire reconnaissance of important or exceptionally resistant targets, and destruction of distant minefields. It is likely that the new high-velocity 100-mm guns are replacing some of the 122-mm guns in the brigade.

HEAVY HOWITZER BRIGADE. The heavy howitzer, and possibly the heavy gun brigade, armed with 203-mm howitzers and 152-mm guns respectively, consist of brigade headquarters and headquarters battery, four firing battalions, and brigade services. The 203-mm howitzer is the most powerful piece habitually used by Soviet field artillery when great blast and penetration are required. Targets are carefully selected because of low rate of fire and great weight of ammunition. Primary missions of this brigade include destruction of permanent fortifications, bridges, railroads, and buildings. In tactical groupments, the 203-mm howitzer is combined with its companion piece, the 152-mm gun—a weapon which is characterized by great range, high muzzle velocity and penetration, low rate of fire, and poor maneuverability.

120-MM MORTAR BRIGADE. Every artillery division has a mortar brigade. Mortar brigades, however, also may be independent. A mortar brigade has good tactical and strategic mobility. It is armed with 108 120-mm mortars which are characterized by high rate of fire, great maneuverability, and good radius of burst. Primary missions of the mortar brigade include destruction of personnel in the open and in light shelters; destruction of light field fortifications and wire barriers; destruction or neutralization of artillery, mortar, and infantry firing positions; accompanying and defensive barrages and concentrations; and smoke screens. A heavy mortar brigade is especially useful in woods and swamps in direct support of infantry or cavalry. The brigade consists of three mortar regiments and brigade troops (fig. 24).

Unit	Off	EM	Total O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	12.7-mm AAMG	14.5-mm ATR	120-mm Mort	Trk	Sp Veh	Ki	Rad
Hq and Opns Stf	20	5	25	25						4	2		
Political Stf	3		3	3							1		
Sup Stf	10	10	20	20						2	1		
Hq Btry	5	119	124	98	24		3			12		1	4
3 120-mm Mort Regts	279	1, 188	1, 467	1, 185	111	54		108	108	216	27	15	48
Med Plat	3	8	11	11						1	1		
Ord Wk Shops	6	18	24	24						3	3		
Am Plat	1	30	31	31						30			
Total	327	1, 378	1, 705	1, 397	135	54	3	108	108	268	35	16	52

Figure 24. Table of Organization and Equipment: 120-mm Mortar Brigade.

b. Artillery regiments. Artillery regiments may be independent or may be parts of artillery brigades and artillery divisions, and organic to formations of combined arms. An artillery regiment generally consists of headquarters and headquarters battery aggregating between 75 and 100 officers and enlisted men, three firing battalions, and service troops. The headquarters battery has reconnaissance, topographic, signal, and headquarters platoons. Service troops consist of ammunition platoon, ordnance and motor work shops, supply train, and a small medical unit.

Unit	Off	EM	Total O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	76-mm G	Trac	Tlr	Trk	Sp Veh	Ki	Rad
Hq & Opns Stf	7	2	9	9						1			
Political Stf	3		3	3									
Sup Stf	7	6	13	13						2			
Hq Btry													
Hq Plat	1	7	8	4	4					1			
Recn Plat	1	10	11	6	5					2			
Sig Plat	1	23	24	19	5					3			4
Topo Plat	1	20	21	16	5					3			
Sup Sec		4	4	4						1		1	
2 76-mm G Bns	48	428	476	406	58	12	24	4	20	54	6	6	22
Med Plat	3	8	11	11						1	1		
Ord Wk Shop	3	9	12	12						1	1		
QM Wk Shop		5	5	5							1		
Trans Plat	1	16	17	17						11	5		
Sup Sec		3	3	3						1		1	
Total	76	541	617	528	77	12	24	4	20	81	14	8	26

Figure 25. Table of Organization and Equipment: 76-mm Gun Regiment, Motorized.

Independent artillery regiments carry a full unit of fire for their subordinate units. Regiments which are parts of larger artillery units or of formations of combined arms carry one-third of a unit of fire. Regiments are the lowest housekeeping and administrative units of the artillery arm.

Artillery regiments may be homogeneous or heterogeneous. (All units of homogeneous regiments are armed with the same weapon, whereas heterogeneous regiments are armed with two or more companion weapons.) Homogeneous regiments include the light artillery regiment (fig. 25), the mortar regiment (fig. 26), and the rocket regiment (fig. 27). A light artillery regiment generally forms a part of a light artillery brigade. It consists of headquarters and headquarters battery, two battalions with three firing batteries each, and services. This regiment is often combined with a tank destroyer regiment (fig. 14) to form an antitank groupment. Other missions of the light artillery regiment are outlined in the discussion of the light artillery brigade.

A heavy mortar regiment forms a part of a mortar brigade, or it may be independent. It consists of headquarters and headquarters battery, two firing battalions with 18 heavy mortars each, and regimental services. It is used for destruction of personnel and matériel in open positions and in open trenches, for destruction of wire entanglements, neu-

Unit	Off	EM	Total O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	120-mm Mort	Trk	Sp Veh	Ki	Rad
Hq and Opns Stf	10	2	12	12				2			
Political Stf	3		3	3							
Sup Stf	7	8	15	15				2			
Hq Btry											
Hq Plat	1	7	8	4	4			1			
Recn Plat	1	16	17	12	5			2			
Sig Plat	1	29	30	25	5			3			4
Topo Plat	1	25	26	21	5			3			
Sup Sec		7	7	7				1		1	
2 120-mm Mort Bns	60	258	318	243	18	18	36	44		4	12
Med Plat	3	8	11	11				1	1		
Ord Wk Shop	3	9	12	12				1	1		
QM Wk Shop		7	7	7					1		
Trans Plat	3	17	20	20				11	5		
Sup Sec		3	3	3				1	1		
Total	93	396	489	395	37	18	36	72	9	5	16

Figure 26. Table of Organization and Equipment: 120-mm Mortar Regiment

tralization of machine guns and mortars, and for the establishment of stationary and moving barrages. During artillery preparation for an offensive operation, the mortar regiment is often reinforced by a 122-mm howitzer regiment to form a countermortar groupment.

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	7.62-mm Hv MG	12.7-mm AAMG	37-mm AA G	132-mm RL	Trac	Trk	Mtrcl	Ki	Rad
Hq & Stf	10	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....
Hq Plat	12	6	6	2	.....	.....	.....	.....	.....	1	.....	.....	.....
Rcn Sqd	10	1	9	1	.....	.....	.....	.....	.....	1	.....	.....	.....
Sig Sqd	15	10	5	.....	.....	.....	.....	.....	.....	2	2	.....	6
Sup Sec	7	7	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....
3 Rkt Bns	639	570	69	12	.....	.....	.....	24	.....	48	.....	3	14
AAAW Btry	62	35	15	.....	.....	6	6	.....	.....	12	.....	.....	.....
Trans Co	53	27	.....	.....	.....	.....	.....	.....	.....	40	.....	.....	.....
Total	808	656	104	15	.....	6	6	24	.....	110	2	4	20

Figure 27. Table of Organization and Equipment: Rocket Regiment

The rocket regiment (M13) may be a part of a rocket brigade, or it may be independent. It has a balanced headquarters, three rocket battalions with two rocket batteries each, an antiaircraft machine gun company, and services. This regiment is used against area targets. Weight of metal of a single salvo from this unit is more than 7 tons.

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	12.7-mm AAMG	37-mm AA G	Trk	Ki	Rad
Hq & Stf	11	4	7	.....	.....	1	.....	.....
Sig Plat	21	14	7	.....	.....	4	.....	3
Engr Plat	20	15	5	.....	.....	2	.....	.....
Hq Plat	12	6	6	.....	.....	1	.....	.....
Sup Sec	7	7	.....	.....	.....	1	1	.....
4 37-mm Btrys	200	156	44	.....	16	16	.....	4
AAMG Co	90	57	33	16	.....	16	.....	1
Sup Plat	15	15	.....	.....	.....	11	1	.....
Ord Shop	14	14	.....	.....	.....	2	.....	.....
Med Plat	7	7	.....	.....	.....	2	.....	.....
Total	397	295	102	16	16	56	2	

Figure 28. Table of Organization and Equipment: 37-mm Antiaircraft Automatic Weapons Regiment.

The medium and light antiaircraft artillery regiments are also homogeneous. (The light antiaircraft artillery regiment [antiaircraft automatic weapons regiment] is discussed under tank corps.) The medium antiaircraft artillery regiment is comparable to the U. S. antiaircraft artillery gun battalion. It may be a part of an antiaircraft artillery division, or it may be independent. It consists of headquarters and headquarters battery, four 4-piece firing batteries, an antiaircraft machine gun company, and services (figs. 28 and 29). In addition to its primary mission of antiaircraft protection of ground troops and installations, it is employed for direct fire against ground fortifications, antitank defense, and, less often, for indirect fire against ground targets.

Heterogeneous artillery regiments include the divisional artillery regiment (fig. 4), the howitzer regiment (fig. 30), and the medium gun regiment (fig. 31). (Organization and missions of the divisional artillery regiment are outlined in the discussion of the rifle division.) The howitzer regiment consists of headquarters and headquarters battery, three firing battalions, and services. Its missions are outlined in the discussion of the howitzer brigade.

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	12.7-mm AAMG	85-mm AA G	Trac	Trk	Sp Veh	Ki	Rad
Hq and Stf	26	15	11	.....	.....	.....	2	.....	.....	.....
Hq Btry:										
Rcn Plat	12	.....	12	.....	.....	.....	1	.....	.....	.....
Topo Plat	12	9	3	.....	.....	.....	1	.....	.....	.....
Sig Plat	35	30	5	.....	.....	.....	4	.....	.....	4
Engr Plat	20	18	2	.....	.....	.....	2	.....	.....	.....
Sup Sec	7	7	.....	.....	.....	.....	1	.....	1	.....
4 Btrys	360	260	44	.....	16	16	16	.....	.....	8
AAMG Btry	90	57	33	16	.....	.....	16	.....	.....	1
Am Plat	22	22	.....	.....	.....	.....	22	.....	.....	.....
Ord Wk Shop	8	8	.....	.....	.....	.....	.....	1	.....	.....
Mtr Wk Shop	10	10	.....	.....	.....	.....	1	1	.....	.....
Sup Sec	11	11	.....	.....	.....	.....	1	.....	2	.....
Med Plat	7	7	.....	.....	.....	.....	1	.....	.....	.....
Total	620	454	110	16	16	16	68	2	3	13

Figure 29. Table of Organization and Equipment: 85-mm Antiaircraft Artillery Regiment

The medium gun regiment consists of headquarters and headquarters battery, three battalions, and services. Two of the battalions are armed with 152-mm gun-howitzers, and the third with 122-mm guns. Missions of this regiment are the same as those of the medium gun brigade.

c. Artillery battalion. The basic organizational and tactical element of the artillery arm is the battalion. The artillery battalion generally consists of headquarters and headquarters battery, three firing batteries, and an ammunition train. The headquarters battery has reconnaissance, signal, topographic, and fire control units comprising between 50 to 65 officers and enlisted men. Independent artillery battalions have sufficient maintenance, repair, and service personnel to effect first and second echelon repairs and to carry one unit of fire and one refill of fuel for its subordinate units. Artillery battalions which form a part of larger artillery units

Unit	Off	EM	Total O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	12.7-mm AAMG	122-mm How	152-mm How	Trac	Tlr	Trk	Sp Veh	Ki	Rad
Hq and Opns Stf	11	2	13	13								2			
Political Stf	3		3	3											
Sup Stf	5	3	8	8								1			
Hq Btry:															
Hq Plat	1	9	10	6	4							1			
Rcn Plat	1	14	15	10	5							1			
Sig Plat	1	34	35	30	5							3			4
Topo Plat	1	20	21	16	5							2			
AA Plat	1	15	16	13	3		3					3			
Sup Sec		7	7	7								3		1	
2 122-mm Bns	48	482	530	436	98	12		24		48	36	38	6	6	22
1 152-mm Bn	24	254	278	231	49	6			12	24	18	19	3	3	11
Med Plat	3	9	12	12								1	1		
Ord Wk Shop	3	9	12	12									1		
QM Wk Shop		7	7	7									1		
Tech Plat	3	32	35	35						1	2	6	2		
Trans Plat	1	10	11	11								7			
Sup Sec		3	3	3								1		1	
Total	106	910	1,016	853	169	18	3	24	12	73	56	88	14	11	37

Figure 30. Table of Organization and Equipment: 122-mm Howitzer Regiment, Motorized.

(regiments and brigades) do not have maintenance and repair personnel. Their supply train carries one-half of a unit of fire. Artillery battalions which form a part of a formation of combined arms also have no service and maintenance personnel. Their ammunition platoon carries only one-third of a unit of fire.

There are two basic types of artillery battalions: the 12-piece (fig. 32), and the 6-piece battalion (fig. 33). The light guns and light and medium howitzers are organized into 12-piece battalions. The 122-mm and 152-mm motorized howitzer battalions differ from the 76-mm gun battalion (fig. 32) only in having greater personnel strength and the addition of 22 tractors and 16 trailers. The 122-mm howitzer battalion has 346 officers and enlisted men; the 152-mm howitzer battalion, 359. The medium guns, medium gun-howitzers, and heavy guns and howitzers are organized into six-piece battalions. The 122-mm gun battalion and 203-mm howitzer bat-

Unit	Off	EM	Total O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	12.7-mm AA-MG	122-mm G	152-mm G/How	Trac	Tlr	Trk	Sp Veh	Ki	Rad
Hq & Opns Stf	11	2	13	13								2			
Political Stf	3		3												
Sup Stf	9	9	18	18								2			
Hq Btry															
Hq Plat	1	9	10	6	4							1			
Rcn Plat	1	18	19	14	5							2			
Topo Plat	1	20	21	16	5							2			
Sig Plat	1	34	35	30	5							3			4
AA Plat	1	15	16	13	3		3					3			
Sup Sec		7	7	7								1		1	
2 152-mm G/How Bns	50	464	514	228	80	6			12	24	16	30		4	18
1 122-mm G Bn	25	208	233	190	40	3		6		12	8	15		2	9
Med Plat	3	9	12	12								1	1		
Ord Wk Shop	3	9	12	12									1		
Qm Wk Shop		7	7	7									1		
Trans Plat	4	32	36	36						1	2	13	2		
Sup Sec		3	3	3								1		1	
Total	113	846	959	605	142	9	3	6	12	37	26	76	5	8	31

Figure 31. Table of Organization and Equipment: Medium Gun Regiment.

talion differ from the 152-mm gun-howitzer battalion (fig. 33) only in the size of the gun crews. Over-all strength of these battalions is 248 and 296 officers and enlisted men respectively.

Unit	Off	EM	Total O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	14.5-mm ATR	76-mm G	Trac	Tlr	Trk	Ki	Rad
Bn Hq & Stf	8	3	11	11							1		
Hq Btry													
Rcn Sec		8	8	4	4						1		
Sig Sec		8	8	5	3						2		2
3 Btrys	15	168	183	159	18	6		12		6	18		9
Am Plat	1	16	17	13	4				2	4	2		
Sup Sec		11	11	11							3	3	
Total	24	214	238	203	29	6		12	2	10	27	3	11

Figure 32. Table of Organization and Equipment: 76-mm Gun Battalion, Motorized.

The 12-piece battalion may be homogeneous or heterogeneous. The heterogeneous battalion has three batteries, two of which are armed with the same weapon, and the third with a companion piece to this weapon. Soviet artillery doctrine considers the following weapons to be supplementary or companion pieces:

76-mm gun and 122-mm howitzer.
122-mm howitzer and 152-mm howitzer.
152-mm gun-howitzer and 122-mm gun.
203-mm howitzer and 152-mm gun.

The last two pairs of companion pieces are not generally found in the same battalion. Rather, they are combined in mixed regiments.

Mortars and rockets are a part of the artillery arm. The heavy mortar battalion, a part of a mortar regiment, consists of headquarters and headquarters battery, which has the same organization as the headquarters battery of the artillery battalion, and three 6-piece firing batteries. Mortar battalions seldom have service troops. The provisional mortar battalion of the rifle division is formed from three heavy mortar batteries of the rifle regiments. The 82-mm mortars of the rifle battalions are organized into companies with nine medium mortars each.

The M–13 rocket battalion forms a part of the tank, mechanized, and cavalry corps, and of the rocket regiment. It is a balanced organization consisting of headquarters and headquarters company, two rocket batteries with four multiple launchers each, and ammunition and maintenance platoons.

Unit	Off	EM	Total O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	152-mm G/How	Trac	Tlr	Trk	Sp Veh	Ki	Rad
Hq and Stf	9	2	11	11									
Hq Btry:													
Hq Sec	1	6	7	4	3					1			
Rcn Sec		6	6	3	3					1			
Topo Plat	1	18	19	14	5					2			
Sig Plat	1	29	30	25	5					3			3
Sup Sec		7	7	7						1		1	
3 Btrys	12	144	156	129	24	3	6	10	4	4			6
Am Plat	1	9	15	10				2	4	2			
Sup Sec		11	11	11						1		1	
Total	25	232	257	214	40	3	6	12	8	15		2	9

Figure 33. Table of Organization and Equipment: 152-mm Gun-Howitzer Battalion, Motorized.

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	7.62-mm HvMG	12.7-mm AAMG	14.5-mm ATR	82-mm Mort	120-mm Mort	37-mm AA G	45-mm AT G	76-mm G & How	SU 85 (85-mm SP G)	M-13 RL	T-34/85 Tk	Armd Veh	Trac	Trk	H-dr Veh	H	Ki	Rad
Corps Hq	88	88																3	10	100	1	
Rcn Bn	(300)	(65)	(235)	(28)												(14)		(8)			(2)	(10)
Sig Bn	(250)	(200)	(50)															(30)			(2)	(10)
Engr Bn	(290)	(225)	(50)	(24)														(16)	(20)	(25)	(2)	
2 Tk Regts	1,100	750	350	24			36								82	6	4	156			2	4
85-mm SP Arty Regt	270	40	225										20		1	1	2	38			2	6
Mort Regt (H-dr)	450	(400)	(50)						20										(50)	564	2	17
TD Arty Regt (Mtz)	496	286	210	12			24					24					30	39			2	14
AAAW Regt	397	295	102			16				16								56			2	8
Rkt bn	225	225				1								8			2	40			1	5
AT Bn	233	172	43	6			18				12							39			2	11
Maint Bn	(150)	(150)																12			1	
Trans Co	(150)	(137)	(6)	(3)			(4)											75			1	
CWS Co	63	55	(6)	(3)														(8)				
Fuel Colm	(30)	(30)																(20)				
Med Bn	(180)	(180)																(12)			3	
Vet Hosp	(50)	(50)																	(8)	(15)		
Fd Bkry & Ldry	63	63																(2)	(10)	(20)		
3 Cav Divs	13,935	8,823	4,848	516	144	27	336	108	36	18	36	72						300	1,212	13,779	105	186
Total	18,720	12,234	6,175	616	144	44	400	108	56	34	48	96	20	8	83	21	38	854	1,316	14,503	130	271

NOTE.—Figures in parenthesis are approximations.

Figure 34. Table of Organization and Equipment: Cavalry Corps.

It is likely that the organization of the heavy M–30 rocket battalion is similar to that of the M–13 rocket battalion.

5. CAVALRY

a. Cavalry corps. The cavalry corps is the normal operating cavalry formation which consists of three cavalry divisions, two to four tank regiments of 41 tanks each, a medium self-propelled artillery regiment, a motorized tank destroyer artillery regiment, a motorized heavy mortar regiment, a rocket battalion, and supporting arms and services (fig. 34). (Individual artillery units of the cavalry corps are discussed in conjunction with the artillery of the tank corps.)

The artillery commander of a cavalry corps has at his disposal five artillery regiments armed with a variety of weapons. The mission of this artillery is to support tanks and cavalry in mobile operations. The type and relative numbers of artillery weapons are selected so as to achieve maximum flexibility and shock power of fire without impairing the mobility of the corps. Including artillery and mortars of the cavalry divisions, the artillery commander of the cavalry corps has 346 pieces of artillery and 8 multiple rocket launchers at his disposal. The weight of metal of a single salvo of these weapons is more than 6 tons.

A cavalry corps has sufficient organic transport to maintain all of its components for 5 or 6 days of moderate combat.

b. Cavalry division. The cavalry division normally forms a part of a cavalry corps. It may also be independent. A cavalry division is a formation which is designed to perform one phase of an operation, such as an encirclement, pursuit, or a raid. A cavalry division consists of headquarters, three cavalry regiments, a mortar-artillery regiment, a light antiaircraft artillery battery, and supporting arms and services (fig. 35). It lacks the antitank battalion normally found in other formations of comparable size. Its mortar-artillery regiment is singular in that it has no battalion organization, and that it consists of three 76-mm batteries, and two 120-mm mortar batteries. Services of the cavalry division are small. Its maintenance and resupply facilities are sufficient to maintain it for only 1 to 2 days of moderate combat. It has no replacement pool.

c. Cavalry regiment. The cavalry regiment is normally a part of a cavalry division. However, cavalry regiments may be attached to other formations for reconnaissance, or they may act as independent units for specific missions such as night raids. A cavalry regiment consists of headquarters, four cavalry squadrons, and supporting arms and services (fig. 36). The proportion of cavalry proper to the supporting arms and services is less than 50 percent, a much smaller ratio than the proportion of infantry to other arms and services in a rifle regiment. A cavalry regiment is strong in automatic and antitank weapons. In comparison to a rifle regiment, it is weak in mortars.

Unit	O & EM	7.62-mm SAR, R, & Cbn	7.62-mm SMG	7.62-mm LMG	7.62-mm HvMG	12.7-mm AAMG	14.5-mm ATR	82-mm Mort	120-mm Mort	37-mm AAG	45-mm ATG	76-mm G & How	Trk	H-dr Veh	H	Ki	Rad
Div Hq	120	105	12	3	----	----	----	----	----	----	----	----	----	5	130	1	2
Recn Sqd	110	------	110	9	----	----	----	----	----	----	----	----	----	----	110	----	----
Sig Half-Sqd	53	48	5	----	----	----	----	----	----	----	----	----	----	12	65	----	5
Engr Sqd	70	58	12	6	----	----	----	----	----	----	----	----	----	12	65	----	1
AAAW Btry Mtz	80	68	12	6	----	----	----	----	----	6	----	----	6	----	------	1	1
Mort-Arty Regt H-dr	450	400	50	12	----	----	16	----	12	----	----	12	----	----	570	3	17
Servs:																	
CWS Sqd	64	55	6	3	----	----	----	----	----	----	----	----	4	8	35	----	----
Am Colm	143	125	14	4	----	----	----	----	----	----	----	----	54	----	------	1	----
Sup Colm	48	48	------	----	----	----	----	----	----	----	----	----	21	----	------	1	----
Med Sqd	50	50	------	----	----	----	----	----	----	----	----	----	6	20	50	1	----
Vet Hosp	25	25	------	----	----	----	----	----	----	----	----	----	----	2	25	----	----
3 Cav Regts	3, 432	1, 959	1, 395	129	48	9	96	36	----	----	12	12	9	345	3, 543	27	36
Total	4, 645	2, 941	1, 616	172	48	9	112	36	12	6	12	24	100	404	4, 593	35	62

Figure 35. Table of Organization and Equipment: Cavalry Division.

Unit	O & EM	7.62-mm SAR, R, & Chn	7.62-mm SMG	7.62-mm LMG	7.62-mm HvMG	12.7-mm AAMG	14.5-mm ATR	82-mm Mort	45-mm G	Trk	H-dr Veh	H	Ki	Rad
Regtl Hq	25	20	5	1							1	30	1	2
Recn Sqd	(40)	5	35	4								40		
AA Plat	16	16				3				3				
Sig Plat	25	20	5	2							4	30		4
Engr Plat	18	11	5	2							2	20		
4 Cav Sqd	560	140	400	32			24				20	600	4	
HvMG Sqd	125	120			16						15	130	1	3
How Btry	86	81	5								10	65	2	3
Mort Bn	(80)	(80)						12			12	80	1	
AT Btry	55	55	6				8		4		10	70		
Servs														
Sup Plat	20	20									2	20		
Am Plat	(45)	(45)									30	60		
CWS Plat	12	9	2	1							1	8		
Med Plat	26	20	2	1							7	20		
Vet Plat	11	11									1	8		
Total	1, 144	653	465	43	16	3	32	12	4	3	115	1, 181	9	12

Figure 36. Table of Organization and Equipment: Calvary Regiment.

Section III. TECHNICAL SERVICES

1. INTRODUCTION

The allotment of technical services to field organizations is based on economy of personnel and equipment in the standard organizations, and on generous reserves of these services under the control of Army Group, army, and task force commanders. These principles were put into effect in April 1941, and resulted in the activation of many specialized units such as engineer brigades, signal regiments, and motor transport and road maintenance battalions. Specialized equipment is similarly concentrated in reserves for the commanders. Reserve signal equipment, for example, always is maintained under control of the signal officer of a unit or formation.

2. ENGINEER

Engineer units which form a part of formations of combined arms, such as rifle and cavalry divisions, were drastically reduced in size after the first few months of the war with Germany. The engineer battalion of the rifle division, for example, was reduced from 509 officers and enlisted men to 162. Not only was there a reduction in the size of the companies (the pioneer company had an aggregate of 170 just before the war, it now has 72), but also specialized units such as bridging, road repair, construction, and demolition platoons were taken away from the battalion. These specialized units were combined to form independent engineer battalions, regiments, and brigades which are used to support corps, divisions, and armies. This reorganization of the engineer arm resulted in increasing specialization into combat engineers, ponton engineers, and construction engineers.

At present, the Soviet doctrine prescribes that each active rifle battalion must be supported by a platoon of engineers, and each active rifle regiment must be supported by a company. Therefore, each active rifle division must have an engineer battalion in addition to the organic allotment of engineers of the rifle regiments and the divisional engineer battalion.

The engineer platoon of the rifle regiment has 1 officer and 19 enlisted men. Its transport consists of one horse-drawn wagon. The engineer battalion of the rifle division has 16 officers and enlisted men organized into headquarters and headquarters company, two engineer companies of three platoons each and a transport platoon. Organic transport of the divisional engineer battalion consists of four trucks and nine horse-drawn wagons. Its total strength is approximately 178 officers and enlisted men.

Engineer mining companies are organized as supporting troops to tank and mechanized units. Their mission is to lay mines during offensive operations, to protect the flanks of a tank or mechanized unit during a break-through, and to secure captured positions against armored counterattacks. An engineer mining company consists of headquarters and three platoons. Each platoon has two trucks for personnel and one for antitank mines. The company carries

1,000 mines. Its strength is 121 officers and enlisted men.

Road construction engineers are organized into independent battalions, each consisting of two construction companies, a transport platoon, and a small overhead. Their strength is between 230 to 250 officers and enlisted men. Each road construction company has a strength of 100 officers and enlisted men, organized into three platoons of three 10-man sections, and a supply platoon. The mission of the road construction engineers is the maintenance and repair of existing roads, the construction of new dirt and corduroy roads, and the construction and repair of small bridges (up to 30 tons).

a. Bridging engineers. An independent light bridging battalion is capable of building a 200- to 250-foot ponton bridge of 5- to 14-ton capacity in 70 to 90 minutes. It consists of headquarters and headquarters company, three light bridging companies, and transport and service units. Each light bridging company has three platoons with 18 to 23 men in each. Strength of a light bridging battalion is approximately 250 officers and enlisted men.

The independent light (16T) bridging battalion is capable of constructing a 500-foot ponton bridge in 2 hours. It consists of three companies of four platoons each. Strength of this battalion is approximately 300 officers and enlisted men. Two such battalions may be combined to form a light bridging regiment capable of erecting a 1,350-foot ponton bridge in 2 hours. Strength of the light bridging regiment is approximately 750 officers and enlisted men.

The independent medium (30T) bridging battalion is capable of erecting a 325-foot ponton bridge in 2½ hours. It consists of two companies of four bridging platoons each. Its strength is approximately 300 officers and enlisted men. The engineer park of each tank and mechanized corps is allotted sufficient ponton materials to build a 30-ton bridge 300 feet long.

A heavy (60- to 100-ton) bridging regiment is capable of constructing a 340-foot ponton bridge in 3 hours. It consists of two heavy ponton battalions of four heavy ponton companies each. Its strength is approximately 700 officers and enlisted men.

3. SIGNAL

Allotment of signal personnel and equipment to the various organizations in the Red Army follows a definite pattern. In general, each unit and formation receives one telephone and telegraph team of three to seven men for each of its major subordinate units, one radio team, and one message center team. For example, a rifle regiment has a signal company of 50 officers and enlisted men. This company is organized into two telephone and telegraph platoons, and a radio platoon. The first telephone and telegraph platoon has three squads to establish wire communications with the rifle battalions. The second telegraph and telephone platoon establishes wire communications within the command, staff, and rear area installations of the regiment and maintains the message center. The radio platoon establishes and operates the radio nets of the regiment.

The signal company of the rifle division consists of the headquarters, a signal communications company, a signal construction company, a maintenance and repair platoon, and a supply section. Its strength is approximately 130 officers and enlisted men.

The independent signal battalion attached to the rifle, mechanized, tank, and cavalry corps consists of a headquarters company, a telephone company, a radio company, a signal construction company, a technical maintenance and repair platoon, and a supply section. Its strength is approximately 250 officers and enlisted men. The headquarters company of this battalion includes a telephone platoon which establishes and operates communications within the headquarters, a messenger platoon, and an air liaison platoon. The telephone company consists of three platoons each with 3 trucks, 9 telephones, and 15 miles of field cable. For extended operations (laterally and in depth) the signal battalion is reinforced with one or more telephone companies. The signal construction company is equipped with six cable-laying trucks. Its strength is approximately 30 officers and enlisted men.

The army signal regiment has between 700 and 800 officers and enlisted men. Its mission is to establish and maintain communications for the army headquarters, staff, and rear area installations. For communications with subordinate units and formations, it receives one additional telephone company for each corps. It consists of headquarters, telephone and telegraph battalion, a signal construction battalion, a signal intelligence company, and a service battalion.

The telephone and telegraph battalion includes a teletype and telephone exchange, a radio company, and a messenger company. The radio company has

one transmitter for each subordinate formation, six semi-mobile transmitters, and five radio trucks. The messenger company has 50 officers and enlisted men, 12 staff cars, and 6 motorcycles. The signal construction battalion consists of two or more cable companies, each with six cable-laying trucks. The service battalion consists of a transportation company, maintenance company, and supply platoon.

4. CHEMICAL WARFARE SERVICE

The chemical warfare units of Red Army field formations are organized into companies and platoons. Chemical warfare units which are part of the technical reserves of the high command are organized into companies and battalions.

Each platoon consists of an antigas squad and a decontaminating squad. Its strength is 12 to 15 men. Fifty to sixty officers and enlisted men form the chemical warfare company. It is believed that each army has a gas defense battalion with the primary mission of conducting refresher and basic training for the gas defense personnel of subordinate formations and units.

Although platoons and companies are described as antigas units, their primary mission has been to facilitate the work of assault groups, to screen water-barrier crossings, and to lay smoke screens to cover the withdrawal of damaged tanks and self-propelled guns from the battlefield.

Flame thrower units belong to the Chemical Warfare Service. A flame thrower platoon with ten flame throwers is organic to the motorcycle battalion of the tank and mechanized corps. A flame thrower battalion is part of the supporting troops of the average army.

5. MAINTENANCE

The organizational element of ordnance and maintenance in the Red Army is the field work shop. Each work shop is operated by 8 to 10 technicians under the supervision of an ordnance officer. The number of work shops assigned to a unit or a formation depends on the armament and degree of motorization of the organization. The rifle division has one Type A work shop. The tank brigade has two Type A work shops, one Type B work shop, an air compressor, and three trucks. Three tractors with trailers, and 29 trucks are used to haul spare parts, fuel, rations, and ammunition for the tank brigade. The work shop company of the tank and mechanized corps has two Type A and two Type B work shops, electrical work shop, four to six special vehicles, and five tractors with two trailers. It is believed that recovery tanks with heavy cranes have been added to the maintenance units of formations down to and including the tank and mechanized corps and, possibly, to the work shop company of the tank and mechanized brigades. Figure 37 shows the organization of maintenance facilities of the army, tank and mechanized corps, and tank and mechanized brigades.

6. MEDICAL AND VETERINARY SERVICE

Medical and veterinary units in the Red Army, like other special services, are organized on the principle that those medical and veterinary teams organic to field units and formations should be kept to a minimum size, and that the specialized units constituting part of the technical services reserve of the high command should be organized into teams with ample personnel and equipment.

Medical teams of the rifle battalion, rifle regiment, and tank and artillery regiments consist of from five to seven men. Their primary function is to render first aid and to evacuate wounded. Tank, motorized, and mechanized brigades have medical units of approximately 32 men. Larger formations, such as cavalry divisions and rifle brigades, have a medical company of approximately 60 officers and enlisted men. The rifle division, cavalry, tank, and mechanized corps each have a medical battalion capable of emergency surgery, but whose primary functions are sorting, dressing, and evacuating wounded. This battalion consists of a sorting unit, an ambulance platoon, a divisional (corps) aid station, a collecting company, and an epidemic control unit.

Medical services for the field units are concentrated at the army level (see Section I, Armies). The army medical battalion, which allots reinforcing elements to the divisions and mobile corps, is organized into surgical and hospital teams. The number of such teams corresponds generally to the number of subordinate rifle corps, rifle divisions, and mobile corps. The surgical team has a surgeon, three to five physicians, four to five surgical nurses, five to six orderlies, and a recorder. The functions of the members of this team are self-explanatory. The recorder keeps the administrative records of the hospital, and records each operation as it takes place.

The hospital team is organized into sections according to types of injury. Each section consists of a surgeon, a physician, two to three surgical nurses

Attached to—	Number	Designation	Equipment	Strength	Operational area	Mission
Armd Bn; SP Arty Regt; Arty Regt; R Div.	1	Mbl Rep Shop Type A	1 GAS–AA trk or 3-ton trk ZiS–5 with a lathe, welding equipment and repair parts.	8 to 10 men (1 tech off, 5 locksmiths, 1 lathe operator, 1 welder).	On the battlefield	Repair of slightly disabled tks (caterpillars, transmissions, welding jobs).
Tk Brig Tk Regt	1 to 2	Tech Sup Co with: Mbl Rep Shops Type A	Same as above	Same as above	2 to 5 km behind the front line	(a) Hauling.
Mecz Brig	2 to 4	Mbl Rep Shops Type B	Each Rep shop has 1 covered ZiS–6 trk with lathe, and tools, spare parts, crane and storage-battery charger. In addition: 1 Milling machine and welding equip. 2 to 3 "Stalinets" tracs. 6 to 8 Trks. 1 Passenger car.	9 men each		(b) Current simple and medium repair of tks and mtr vehs. (For instance, replacement of engines and of other parts.)
Tk Corps		Mbl Fld Rep Base or Rep Bn		Approx. 200 specialists.	10 to 30 km behind the front line.	Same as above.
Mecz Corps	2	Mbl Rep Shops Type A	Same as above			
	8 to 10	Mbl Rep Shops Type B	Same as above. In addition: 10 Mtr vehs. 8 to 9 Tracs.			
Army	1	Large Mbl Rep Shop Type C and probably several Fld Rep Bases. Also a repair shop in a factory located in the army rear area.	5 to 6 RR cars 2 Lathes, drilling, cutting, milling, and grinding machines. 2 Forgeries, 1 electric plant, electric welding equipment, repair parts. In addition: 7 1½-ton trks. 1 5-ton trk. 1 Passenger car. 4 to 5 Tracs.	1 Off; 1 Engr; 44 EM. In addition: 30 EM.	50 to 100 km behind the front line.	Major repairs, supply of spare parts, reserve pools of repair shops.
Army		Assembly places for disabled tks and trks (SPAM).			Area of sup station	Collection and probably some repair of tks and trks.

Figure 37. Red Army maintenance services.

and five to seven orderlies. The infectious diseases section of the hospital team consists of a physician, a nurse, three to four orderlies, and an X-ray and physiotherapy unit.

The army convalescent battalion is capable of caring for 1,000 cases. It is divided into four convalescent companies, a dental clinic, an infectious diseases ward, and a pharmacy. Each convalescent company has a dressing station manned by two physicians, three nurses, and three to four orderlies.

The veterinary units are organized according to the same principle as the medical units. Organic veterinary units of the horsedrawn field troops are very small. A rifle division, for example, which has approximately 1,700 horses, has a veterinary aid station with 11 officers and enlisted men. Like the medical services, the veterinary services are concentrated at the army level. Each army has two veterinary hospitals—each capable of caring for approximately 250 horses—and one or two veterinary evacuation hospitals.

APPENDIX

The abbreviations which are used in the Tables of Organization and Equipment are those authorized by TM 20–205. They are reproduced in the table below for the convenience of the reader.

AA—antiaircraft
AAA—antiaircraft artillery
AAAW—antiaircraft automatic weapon
AAMG—antiaircraft machine gun
Am—ammunition
Armd—armored
Armd C—armored car
Armd Pers Carr—armored personnel carrier
Arty—artillery
AT—antitank
ATR—antitank rifle
Auto R—automatic rifle
Bkry—bakery
Bcl—bicycle
Bn—battalion
Brig—brigade
Btry—battery
Carr—carrier
Cav—cavalry
Cbn—carbine
Co—company
Colm—column
CWS—Chemical Warfare Service
Div—division
Dr—drawn
EM—enlisted men
Engr—engineer
Fld—field
G—gun
H—horse
H-dr—horse-drawn
Hosp—hospital
How—howitzer
Hq—headquarters
Hv—heavy
HvMG—heavy machine gun
Ki—kitchen
L—light
Ldry—laundry
LMG—light machine gun
L-Tk—light tank
M—medium
Maint—maintenance
Mbl—mobile
Mecz—mechanized
Med—medical
MG—machine gun
mm—Millimeter
Mort—mortar
Mtr—motor
Mtrcl—motorcycle
Mtz—motorized
O and EM—officers and enlisted men
Obsn—observation
Off—officer
Opns—operations
Ord—ordnance
QM—quartermaster
Pers—personnel
Plat—platoon
R—rifle
Rad—radio
Rcn—reconnaissance
Regt—regiment
Regtl—regimental
Rep—repair
Repl—replacement
Rkt—rocket
RL—rocket launcher
SAR—semiautomatic rifle
Sec—section
Serv—service
Sig—signal
SMG—submachine gun
SP—self-propelled
Sp—special
Sqd—squad
Stf—staff
Sup—supply
TD—tank destroyer
Tech—technical
Tk—tank
Tlr—trailer
Topo—topographic
Tr—troop
Trac—tractor
Trans—transportation
Trk—truck
Trk-dr—truck-drawn
Veh—vehicle
Vet—veterinary
Wk—work

686882°—46——5