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CHAPTER 2

REFERENCE DATA
THE INFANTRY REGIMENT

PREPARED AT THE INFANTRY SCHOOL
UNDER DIRECTION OF
THE COMMANDING GENERAL, ARMY GROUND FORCES

11-24-42

NOTE: THE REFERENCE DATA CONTAINED HEREIN ARE BASED UPON THE ORGANIZATION OF THE INFANTRY REGIMENT AS SET FORTH IN PART ONE OF THIS TRAINING BULLETIN. SINCE TABLES OF ORGANIZATION AND THE TABLE OF BASIC ALLOWANCES ARE SUBJECT TO CHANGE, WHILE STRENGTH AND COMPOSITION OF UNITS OF THE FIELD FORCES WILL VARY, LOADING TABLES AND OTHER DATA ARE FURNISHED ONLY AS A GUIDE FOR USE IN UNIT TRAINING.

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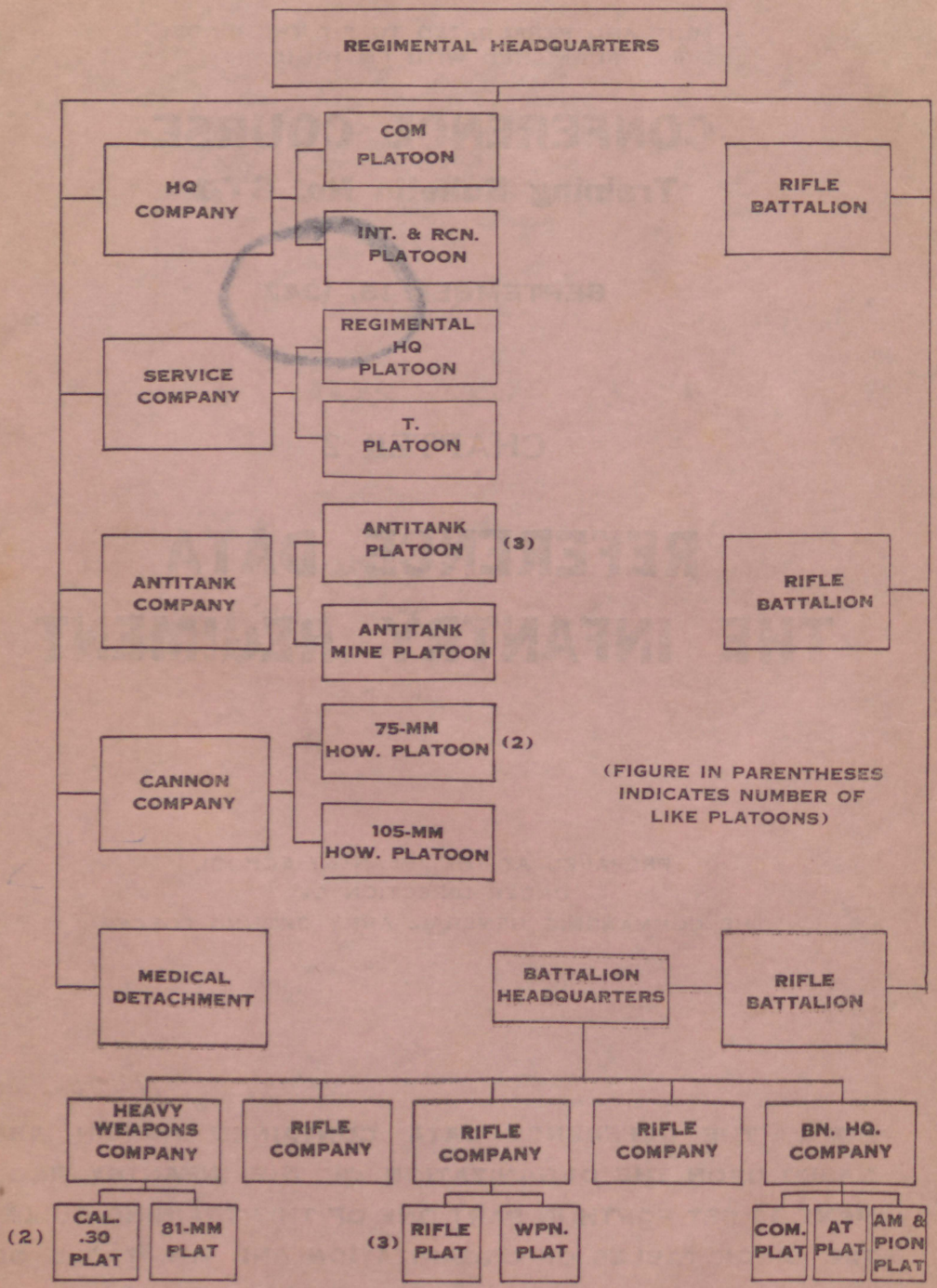

FIGURE 1.--Organization, Infantry Regiment.

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TABLE 1

8-1-42

Basic Data on Troop Movements

(This table contains numerous extracts from FM 101-10.)

1. Computations regarding troop movements are made from the basic data given below. These data have been demonstrated by experience to be approximately correct as an average for trained troops. In actual practice, however, it will be necessary to base computations upon the observed performance of the troops involved. Tables for field use must conform to the variations of strength of units and the amount of transportation and equipment available. Regiments, separate battalions, and similar units should maintain tables showing road space requirements of their units based on actual strength and materiel on hand. However, a table based on actual strength of men and materiel may be worthless without proper evaluation of the weather, road conditions, hostile air or mechanized threats, or other variable factors affecting the troop movement. These basic figures are capable of great increase or decrease under extremes of the variable factors.

Foot Troops

2. *Road space.*—Foot troops will occupy the same road space in formation whether halted or in motion. Allowances will be made as follows:

	Yards
In columns of twos, per man	1.2
In columns of threes, per man	.8
In columns of fours, per man	.6

Motor Columns

3. *Time Length.—a. General.*—In any type of motor movement, if the road space in miles and the speed in miles per hour are known, the TL in minutes may be obtained from the following formula:

$$TL = \frac{RS}{mph} \times 60$$

b. Close Column.—Computations regarding motor columns (*in Close Column*) are based upon the demonstrated fact that vehicles driving at speeds between 10 and 35 miles per hour, both inclusive, and spaced at minimum safe-driving distances will pass a given point at the rate of 100 vehicles in 8 minutes. (See par. 48, FM 101-10.) Based upon the foregoing, the time length of any motor column under the conditions stated above, may be obtained from the formula TL equals N times .08, TL being the time length and N the number of vehicles in the column. From the same formula, if the time length of a column is known, the number of vehicles in it may be obtained.

4. *Road space.*—The road space of a motor column may be obtained if its time length and approximate speed are known, from the following formula:

RS equals (TL divided by 60) × mph.

RS being the road space, TL the time length, and mph the rate in miles per hour. The result will be in miles.

5. *Shuttling.*—In movements involving shuttling, the following formula is useful:

$T = TD + 2td + C$

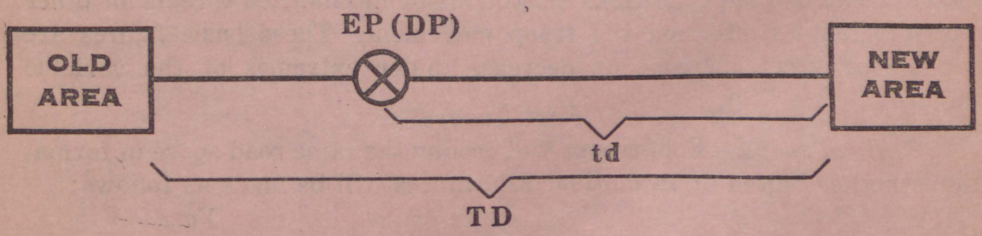
Let T = total time involved

TD = time distance old to new bivouac area

td = time distance old area to DP, or new area to EP

C = total time consumed in loading, unloading, turning around, clearing final serial into the new area. Although ordinarily ignored for planning purposes, the difference in time lengths between the first serial and the serial returning for shuttling purposes may be included.

The formula is illustrated as follows:



Should all troops be transported all the way, td has the same value as TD and the formula becomes:

$T = 3TD + C$

By using this formula the total time required to transport all troops all the way, or the minimum distance certain foot elements must march in order to complete the movement in a prescribed time may be determined.

6. *Motors at a halt.*—Where it is desired to compute the road space of a motor column halted and closed up, the following figures will be used:

Truck: ¼-ton	5 Yds
¼-ton, with cargo Tlr, or weapon in tow	8
Mechanized vehicles	10
Motorcycle (solo or w/s/c)	5
Truck: ½ to 2½-ton incl	10
½ to 2½-ton incl, with cargo Tlr, or weapon in tow	14
Average per vehicle for a mixed column of various types	10 Yds

7. In estimating time lengths and road spaces of moving motor columns, motorcycles and trailers are ignored, the former because they will usually be used in column control, and the latter because, practically, they constitute a part of the vehicle by which they are towed. Where the time length of a column includes a fraction of a minute, the next higher minute is taken.

Movement by Rail

8. *Speed.*—The speed of railway trains will be assumed to be 20 miles per hour.

9. *Loading and unloading.*—Three hours will be assumed as the time required to load or unload troop trains.

10. *References.*—Current War Department publications covering this subject are listed below.

AR 30-945 as changed by WD Cir 149 dated 1941
" " 198 " "
" " 269 " "
" " 26 " 1942

FM 7-40 pars. 132-139
" 25-10 " 231-232
" 100-5 " 399-414
" 101-10 chap. 2
TM 10-405 par. 76

TABLE 2

Rates of Movement

The following are average rates and lengths of marches:

	1	2	3	4	5	6(1)	7
		Average rates of march (mph)				Lengths of march (average)	
1	Unit	On roads		Across country		On roads (miles per day).	Remarks
		Day	Night	Day	Night		
	INFANTRY (2)						
2	Foot trs	2½	2	1½	1	12-15 for a division 15-20 for smaller units	Length of march increased with well seasoned trs marching on good roads in favorable weather when required by the tactical situation. (1)
	ARTILLERY						
3	Trk-dr, L & AA	25	25 (lights) 10 (no lights)	8	5	175	
4	Trk-dr, M, how	20	20 (lights) 10 (no lights)	8	5	140	
5	Trk-dr, Hv	15	15 (lights) 10 (no lights)	8	5	100	
6	Trac-dr, Hv	5	5	3	2	40	
	TANKS						
7	Tks, L & M (units under own power)	25	25 (lights) 10 (no lights)	15	5	150	Convertible medium tanks move off hard-surfaced roads on tracks only.
	MISCELLANEOUS						
8	Trks, Ambs, Mtz units (except M & Hv Arty)	25	25 (lights) 10 (no lights) (3)	8	5	175	
9	Cars, passenger	35	35 (lights) 10 (no lights)	8	5	250	
10	Cars, armored or scout	35	35 (lights) 10 (no lights)	10	5	200	

NOTES

(1) Greater distances than those given in column 6 may be covered under forced march conditions. (See Table 3)

(2) For movement over mountainous terrain, an additional allowance of 20 minutes should be made for each 1,000 feet of climb.

(3) For rapid calculations, 1 mile in 2.4 mins. or 1 mile in 6 mins.

TABLE 3a

Lengths of Foot Marches

1. Infantry regiments or smaller units, on foot, normally will march from *15 to 20 miles per day.*

2. Infantry is capable, however, of making forced marches of considerably greater lengths. Ordinarily the march capacity of troops is increased by increasing the number of marching hours per day rather than increasing the hourly rate of march. The march is broken into shorter stages by halts of several hours duration. A forced march is practically a succession of daily marches of greater average length and with shorter intervals of rest. Any stage of over eight (8) hours duration is considered a forced march. After a stage of eight hours a rest of from 2-6 hours is essential before entering the second stage.

3. The maximum distances that can be covered by well-trained troops making a *forced march* will be assumed to be as follows:

In one 24-hour period ..... 35 miles
In one 48-hour period ..... 60 miles
In one 72-hour period ..... 83 miles

Forced marches of more than 72 hours duration are not considered likely, as it will almost invariably be possible to make motor transportation available and thereby effect the movement more rapidly and with less drain upon the physical capacities of the troops.

TABLE 3b

Cadence of March, Foot Troops

Rate of March (Miles-50 minutes marching time each hour)	2	2.25	2.5	2.75	3
Pace (Inches)					
30	84	95	106	116	127
31	82	92	102	112	123
32	79	89	99	109	119
33	77	86	96	106	115

Equation: $N = \frac{R}{P} \times C$

N = Number of paces per minute (cadence)
R = Rate (mph)
P = Length of pace in inches

$C = \frac{\text{inches in one mile}}{\text{marching time in 1 hr}} = \frac{63360}{50} = 1267.2$

For Example: $N = \frac{2.75}{31} \times 1267.2 = 112.4$ or 112

TABLE 4

Movement Data, Infantry Regiment

Note: No basics are included in this table. See par. 3, explanatory notes, Table 23. No band is included in this table. It is assumed that if a band is authorized, additional transportation will be provided.

			Normally ride on motors		Foot elements		Additional trucks required to move foot elements			
	1	2	3	4	5	6	7	8	9	10
	Strength per T/O	Total motor vehicles	On transportation of unit	On transportation of other units	With other units	With own unit	1½-ton, or	2½-ton	Road space, foot elements, yards. (column of 3's) Includes normal distances.	Time length, motor elements, minutes. (10-35 mph) Does not include time intervals. Close column.
Rifle Co	180	2	6	7a	4g	166e	11	7	132.8	.16
Rifle Plat	(41)	(0)	(0)	(0)	(0)	(42)e	(3)	(2)	(33.6)	(0)
Weapons Plat	(36)	(2)	(6)	(0)	(0)	(30)	(2)	(2)	(24)	(.16)
Heavy Weapons Co	167	20	66	7a	3g	94e	6	4	75.2	1.6
cal .30 MG Plat	(42)	(5)	(16)	(0)	(0)	(27)e	(2)	(1)	(21.6)	.40
81mm Mort Plat	(59)	(7)	(22)	(0)	(0)	(38)e	(3)	(2)	(30.4)	(.56)
Bn Hq & Hq Co	127	21	c 84e	7a	2g	36	3	2	28.8	1.68
AT Plat	(33)	(9)	(34)e	(0)	(0)	(0)	(0)	(0)	(0)	(.72)
Am & Pion Plat	(28)	(2)	(8)	(0)	(0)	(20)	(2)	(1)	(16)	(.16)
Com Plat	(28)	(5)	(22)	(0)	(0)	(6)	(1)	(1)	(4.8)	(.40)
Total Inf Bn w/o attachments	834	47	i 168c	35a	17g	628e	42	26	502.4	3.76
Bn Sec T Plat Serv Co	(11)	(8)	(46)a	(0)	(0)	(17)g	(2)	(1)	(13.6)	(.64)
Bn Med Sec	(35)	(2)	(8)	c (2)f	(12)e	(13)	(1)	(1)	(10.4)	(.16)
Total Inf Bn w/attachments	880	57	222	0	0	658	44	27	526.4	4.56
Hq, Hq Co, Atchd Chs	124	23	b 93j	a 9h	g 3	25	2	1	20	1.84
Int & Rcn Plat	(25)	(7)	(24)i	(0)	(0)	(0)	(0)	(0)	(0)	(.56)
Com Plat	(60)	(9)	(37)	(2)h	(0)	(21)	(2)	(1)	(16.8)	(.72)
AT Co	153	30	e 147k	8a	1g	0	0	0	0	2.40
AT Plat	(31)	(7)	e (31)k	(0)	(0)	(0)	(0)	(0)	(0)	(.56)
AT Mine Plat	(31)	(3)	(31)	(0)	(0)	(0)	(0)	(0)	(0)	(.24)
Cannon Co	112	22	107e	7a	1g	0	0	0	0	1.76
75mm Plat	(31)	(6)	(31)	(0)	(0)	(0)	(0)	(0)	(0)	(.48)
105mm Plat	(24)	(5)	(25)e	(0)	(0)	(0)	(0)	(0)	(0)	(.40)

TABLE 4.—(*Continued*)

Note: No basics are included in this table. See par. 3, explanatory notes, Table 23. No band is included in this table. It is assumed that if a band is authorized, additional transportation will be provided.

			Normally ride on motors		Foot elements		Additional trucks required to move foot elements			
	1	2	3	4	5	6	7	8	9	10
	Strength per T/O	Total motor vehicles	On transportation of unit	On transportation of other units	With other units	With own unit	1½-ton, or	2½-ton	Road space, foot elements, yards. (column of 3's) Includes normal distances.	Time length, motor elements, minutes. (10-35 mph) Does not include time intervals. Close column.
Serv Co	121	38	a 224h	5b	0	77g	5	3	61.6	3.04
Above less 3 Bn Secs	(88)	(14)	a (86)h	(5)b	(0)	(26)g	(2)	(1)	(20.8)	(1.12)
Above less 3 Bn Secs & 3 Sep Co Secs	(85)	(11)	(61)h	(5)b	(0)	(21)	(2)	(1)	(16.8)	(.88)
Medical Detachment	127	8	39	c d 13j	36e	39	3	2	31.2	.64
Above less 3 Bn Secs	(22)	(2)	(15)	(7)d	(0)	(0)	(0)	(0)	(0)	(.16)
Total Inf Regt	3139	262	1114	0	0	2025	135	83	1620	20.96

"NOTES" (See Table 23)

a Mess sergeants, cooks, certain cooks' helpers, armorer-artificers, and orderlies ride on the kitchen and baggage train.

b Includes 5 enlisted men of the Staff Section of the Service Company who ride with the Regimental Headquarters Company.

c Includes the battalion surgeon.

d Includes company aid men of the Battalion Headquarters Companies, the Antitank Company, and the Cannon Company.

e Includes company aid men.

f Includes company aid men of the Battalion Headquarters Company.

g Includes company clerks and certain cooks' helpers who move with the foot elements of the Service Company.

h Includes two radio operators of the Regimental Headquarters Company who ride with the Service Company.

i One draftsman of the Intelligence and Reconnaissance Platoon rides with the Company Headquarters.

j Includes the regimental surgeon who rides with the Regimental Headquarters and Headquarters Company.

k One messenger from each Antitank Platoon rides with Company Headquarters.

TABLE 5

Loading of Motor Transportation

Truck capacities for troop movement.—The capacity of motor transportation for movement of foot troops depends upon the rated capacity of the transportation employed, the type of body on the vehicles, and the method of carrying personnel. Normal capacities for trucks carrying personnel with rifles, packs, and extra ammunition, with no additional cargo:

Truck, ¼-ton	(excluding driver)	3 Men
Truck, ½-ton	"	5 "
Truck, ¾-ton	"	8 "
Truck, 1½-ton	"	15 "
Truck, 2½-ton LB (or larger)	"	25 "

NOTES

1. Above capacities are based upon 5 men (with equipment) per thousand pounds rated capacity of truck, exclusive of the driver.

2. The body of the 2½-ton artillery prime mover is the same size as that of the 1½-ton cargo truck.

3. When 1½-ton dump trucks or 2½-ton artillery prime movers carry the loads shown above, some personnel will be required to stand.

4. The above figures should be reduced for trips of over 75 miles.

5. Time required for loading and unloading vehicles is as follows:

	To load	*To unload*
Personnel with individual equipment only	15 min.	10 min.
Materiel and personnel	30 min.	15 min.

The above figures include time to close up and halt column, if in motion before loading starts.

6. Time required to prepare and load the vehicles of an infantry battalion or regiment to begin a coordinated movement is assumed to be one hour. This is in addition to the time required for distribution of the order (or warning order) giving notice of the approaching movement.

7. A driver's inspection of vehicles should take place at every halt. While this is assumed to require 15 minutes, it may be ignored in figuring time for the start of a motor movement, since it will take place concurrently with the loading (or unloading) of the transportation.

TABLE 6

Gasoline and Oil Data

1. Estimates of gasoline and oil expenditures should be made daily in advance by supply officers of infantry regiments and battalions. They are made in terms of Unit Miles (see par. 2, below) but are transmitted to the next higher authority (regiment or division) in terms of gallons.

2. The Unit Mile of gasoline is the amount of gasoline, in gallons, required to move all vehicles of the unit a distance of one mile.

3. Below are listed the motor vehicles now prescribed for the Infantry Regiment. It may be assumed that each vehicle will travel, on one gallon of gasoline, the number of miles indicated.

		Miles
12	Trucks, ¼-ton, amphibian	each 15
174	Trucks, ¼-ton	each 17.3
31	Trucks, ¾-ton (Comd or W/C)	each 10
37	Trucks, 2½-ton, cargo, with or without trailer	each 6.6
8	Mounts, self propelled	each .8

4. Based upon the assumptions contained in par. 3, above, the Unit Mile of gasoline for the Infantry Regiment, and its indicated components (with all transportation present) is assumed to be as follows:

	Gallons
Rifle Company	.12
Heavy Weapons Company	1.20
Bn Hq and Hq Co	1.26
Total, Inf Bn, without attachments	2.81
Bn Sec, T Plat, Serv Co	1.12
Bn Med Sec	.12
Total, Inf Bn, with attachments	4.05
Regtl Hq & Hq Co	1.62
Serv Co	5.09
Serv Co, less 3 Bn T Secs	1.73
AT Co	2.73
Med Det	.56
Med Det, less 3 Bn Secs	.21
Cannon Co	11.13
Total, Inf Regt with Med Det	29.56
	(or 30 gals)

5. The formula given below may be used to predict the consumption of gasoline for any given period. In the formula, the symbols used have meanings as follows:

UM denotes the requirements in Unit Miles of travel.

SD denotes the supply distances, which is the average of the round trip distance, in miles, between each supply point to be visited by supply vehicles of the unit during the period and the farthest point to which the vehicles must transport the supplies. This factor is multiplied by .2 for the reason that about this percentage of the total vehicles of the unit will, normally, be engaged in supply activities.

MD denotes the distance, in miles, that the unit as a whole is expected to be displaced.

The factor of 10 which is included in the formula is designed to provide for normal everyday activities of transportation of the unit in reconnaissance and other movement except supply and travel to a new location.

THE FORMULA

UM equals 10 plus (.2 × SD) plus MD

The result, being in Unit Miles of travel, must be changed into gallons by multiplying by the proper figure showing the number of gallons in the Unit Mile of gasoline. In actual practice this will be obtained by observation and experience of all concerned. In map problems, the figures given in par. 4, above, will be used.

6. Requirements of lubricating oil, in gallons, are obtained by multiplying the requirements of gasoline, in gallons, by .03.

7. Gasoline for kitchens is computed separately on a flat basis of 10 gallons per kitchen per day.

8. *Prescribed loads of Class III Supply.*—A reserve of gasoline and oil in containers is carried in each unit. As far as practicable, initial distribution of this reserve will be made to each motor vehicle. Each vehicle sent to an army supply point replenishes its supply at some convenient gasoline supply point established by army at or enroute to the army supply point. Vehicles remaining in the forward areas are resupplied by exchanging empty containers for full ones brought forward from gasoline and oil supply points by regimental or division transportation.

TABLE 7

Ammunition with Infantry Regiment for Each Weapon

WEAPONS	On Individual	On Company Transport	On Am Train	Total	REMARKS (F) Armor Piercing	Ball	Tracer
Carbine, U. S., cal .30	60		40	100		100%	
Gun, Machine, Browning, cal .30, Heavy		9000		9000	80%		20%
Gun, Machine, Browning, cal .30, Light		3000	3000	6000	80%		20%
Gun, Machine, Browning, cal .50, M2		300		300	80%		20%
Gun, 37-mm, M3		200G		200	90%	10% HE	
Howitzer, 75-mm, M8		109		109	75% HE: 20%AP 5% WP		
Howitzer, 105-mm, M7		120		120	90% HE 10% AP		
Mines, Antitank, HE, M1		900 Per Antitank Mine Platoon					
Mortar, 81-mm, M1		66	9	75	70% HE, L. 20%HE, Hv, 10%WP		
Mortar, 60-mm, M2		36	54	90	100%HE		
Pistol, Automatic, cal .45	21		7	28		100%	
Rifle, Browning, Auto, cal .30	(A)320		440(H)	760	80%		20%
Rifle, Browning, Auto, cal .30 (For AA Defense)		(E)200		200	80%		20%
Rifle, cal .30 M1	(D)48		(B)96	144	80%		20%
Rifle, cal .30, M1903	40	(C)120		160	80%		20%
Signals, Pistol, M2		18		18	6 ea; Red, White & Green		
Signals, Ground, for Projector M4		36		36	6 ea; M17, M18, M19, M20, M21, M22		
Grenades, AT M9		10	20	30	Prior to combat, Rifle Co 100%HE grenades will be carried in Weapons Platoon vehicles.		
Cartridges, Special, Blank M3 cal. .30		11	22	33			
Grenades, Hand, Fragmentation		(150 Per Co.)		150	100%HE		
Grenades, Hand, Offensive (I)							

(A) 80 by each automatic rifleman, 120 by each assistant automatic rifleman and each ammunition carrier, all in 20-round magazines.
(B) 96 to be issued prior to combat in 48-round bandoleers.
(C) 120 to be issued prior to combat in 60-round bandoleers.
(D) In mobilization, all ammunition for the U. S. Rifle, M1, is packed and issued in 8-round clips in 48-round bandoleers in boxes.
(E) All in magazines.
(F) Caliber .30 ammunition is packed and issued as follows:
Machine Gun, in 250-round belts of one round tracer to each 4 rounds of either ball or AP.
Rifle, M1, in 8-round clips, of either ball, tracer or AP. (Not mixed).
Rifle, M1903, in 5-round clips of either ball, tracer or AP. (Not mixed).
(G) Due to lack of space, in the case of AT platoons of Bn Hq Cos, 50 rounds of this amount are carried on ammunition train vehicles, and 50 rounds on the supply truck of platoon headquarters, transportation platoon, Service Co.
(H) In bandoleers of 60.
(I) 600 per regiment carried in trains of division.

TABLE 8

9-15-42

Normal Loads of Ammunition, Infantry Regiment

(Based on T/BA #7, June 20, 1942, and on T/O WD, April 1, 1942)

	Rifle Co (9 in Regt)		Hv Wpn Co (3 in Regt)		Bn Hq & Hq Co (3 in Regt)		Bn Am Tn (3 in Regt)		Hq Co Inf Regt		Serv Co (Less Bn Am Tns)		AT Co Regtl		Cn Co Regtl		Regtl Total	
	Number of Rounds	Weight	Number of Rounds	Weight	No. of Rds	Weight	Number of Rounds	Weight	Number of Rounds	Weight	Number of Rounds	Weight	Number of Rounds	Weight	Number of Rounds	Weight	Number of Rounds	Weight
.30 cal R M1							33696 (101088)	2890 (8670)									101088	8670
.30 cal LMG	6000 (54000)	492 (4428)					18000 (54000)	1454 (4362)									108000	8790
.30 cal HvMG			72000 (216000)	5904 (17712)													216000	17712
.30 cal BAR (& 1903 R)	400 (3600)	28 (252)	1400 (4200)	98 (294)	1400 (4200)	98 (294)	12080* (36240)	1006 (3018)	1800	126	3200	224	1400	98	2600	182	57240	4488
.30 cal Carbine							11600 (34800)	365 (1095)	3120	98	1080	33	3600	113	2680	84	45280	1423
.30 cal Blanks (For AT Grenades M9)							1078 (3234)	40 (120)	286	11	396	15	198	6	286	11	4400	163
.45 cal Pistol							420 (1260)	23 (69)	21	2							1281	71
.50 cal MG							300 (900)	106 (318)	300	106	1500	530			2400	848	5100	1802
37-mm AT					400 (1200)	2000 (6000)	200 (600)	1000 (3000)			600	3000	2400	12000			4800	24000
60-mm Mortar	108 (972)	486 (4374)					486 (1458)	2187 (6561)									2430	10935
75-mm How HE															489	11247	489	11247
75-mm How AP															132	3036	132	3036
75-mm How WP															33	759	33	759
81-mm Mortar			396 (1188)	3960 (11880)			54 (162)	540 (1620)									1350	13500
105-mm How HE															216	13716	216	13716
105-mm How AP															24	1524	24	1524
Grenades AT M9	90 (810)	180 (1620)	140 (420)	280 (840)	90 (270)	180 (540)	1000 (3000)	2000 (6000)	390	780	540	1080	270	540	390	780	6090	12180
Grenades Hand (Frag)							750 (2250)	1500 (4500)	150	300	150	300	150	300	150	300	2850	5700
AT Mines													900	12060			900	12060
Totals	6598 (59382)	1186 (10674)	73936 (221808)	10242 (30726)	1890 (5670)	2278 (6834)	79664 (238992)	13111 (39333)	6067	1423	7466	5182	8918	25117	9400	32487	557,703	152,776

*Includes 200 rounds for chauffeur ¼-ton trk.

Note: Figures in parenthesis are regimental totals of similar units: example, 9 Rifle Cos in Regt.

Vehicular Total
in Regiment ..... 152,776 Pounds 76.38 Tons

Total in Battalion
(Inc Bn Am Tn) ..... 29,189 Pounds 14.58 Tons

BASIS FOR AMMUNITION WEIGHTS IN TABLE 8

.30 Cal Rifle M1	99 pounds per box of 1152 in clips.
.30 Cal LMG & HMG	20.5 pounds per chest of 250; 101 pounds per box of 1250.
.30 Cal BAR (& 1903 R)	100 pounds per box of 1200; 1.4 pounds per magazine of 20.
.30 Cal Carbine	63 pounds per box of 2000.
.30 Cal Blanks	¾ pound per carton of 20.
.45 Cal Pistol	110 pounds per box of 2000.
.50 Cal MG	106 pounds per box of 300.
37-mm-AT	100 pounds per box of 20.
60-mm Mortar	81 pounds per box of 18.
75-mm How HE, AP, WP	69 pounds per container of 3.
81-mm Mortar	10 pounds average packed each round.
105-mm How HE, AP, WP	127 pounds per container of 2.
Grenades AT M9	2 pounds packed each grenade.
Grenades Hand (Frag)	50 pounds per box of 25.
AT Mines	67 pounds per box of 5; 10.4 pounds each unboxed.

TABLE 9

Units of Fire, Infantry Regiment

UNITS OF FIRE		Rds/Wpn	No. of Weapons	Total Rounds	Boxes	Weight Per Box	Total Weight Pounds	Total Weight Tons
Caliber	Weapon							
.30 cal	Light Machine Gun	2000	18	36,000	28.8	101	2,909	1.45
.30 cal	Carbine	60	1128	67,680	33.34	63	2,100	1.05
.30 cal	Rifle	150	1795	269,250	233.8	99	23,146	11.07
.30 cal	Heavy Machine Gun	3000	24	72,000	57.6	101	5,818	2.90
.30 cal	Auto Rifle	750	81	60,750	50.6	100	5,060	2.56
.30 cal	Auto Rifle (for AA Def.)	200	108	21,600	18	100	1,800	.90
.45 cal	Pistol (Revolver)	7(6)	213	1,491	.75	110	82	.04
.50 cal	Machine Gun (for AA Def.)	300	17	5,100	17	106	1,802	.90
37-mm	Gun AT	100	24	2,400	120	100	12,000	6.00
60-mm	Mortar	100	27	2,700	150	81	12,150	6.08
81-mm	Mortar	100	18	1,800	390	49	19,080	9.54
75-mm	Howitzer, SPM	127	6	762	254	69	17,526	8.76
105-mm	Howitzer, SPM	96	2	192	96	127	12,192	6.10
	Hand Grenade, Frag.	150/Co.		2,850	114	50	5,700	2.85
	AT Grenade, M9	30	203	6,090			12,180	6.09
	AT Mine			900	180	67	12,060	6.03
							Total	72.32

NOTE: A unit of fire, expressed in rounds or tons of ammunition, indicates average expenditure in one day of combat. It is a term used merely as a yardstick, or unit of measure, in preparing ammunition plans to support operations. It is fixed by the theatre of operations commander based on the character of the operations contemplated and may be changed from time to time according to experience.

TABLE 10

Ammunition CAPACITY Loads of Vehicles

	(A) ¼-T Trk	(A) ½-T Trk	(A) ¾-T Trk	(A) 1½-T Trk	(A) 2½-T Trk	(A) ¼-T Tlr	(A) 1-T Tlr
Cal .30 Carbine, 2000 rds in box. Weight 63 lbs.	22000(11)	38000(19)	56000(28)	114000(57)	190000(95)	18000(9)	68000(34)
Cal .30, M1, 1152 rds in box. Weight 99 lbs. (B)	8064(7)	13824(12)	20736(18)	41472(36)	69120(60)	6912(6)	27648(24)
Cal .30, BAR & R, M1903, 1200 rds in box. Weight 100 lbs. (C)	8400(7)	14400(12)	21600(18)	43200(36)	72000(60)	7200(6)	28800(24)
Cal .30, MG. *a.* 250 rds in chest. Weight 20.5 lbs.	8750(35)	14500(58)	21750(87)	43750(175)	73000(292)	7250(29)	29250(117)
Cal .30, MG. *b.* 1250 rds in box (5 belts, 250 rds per belt). Weight 101 lbs.	8750(7)	13750(11)	21250(17)	43750(35)	73750(59)	6250(5)	28750(23)
Cal .50, MG, 300 rds in box. (In metal belts of 100 rds). Weight 106 lbs.	1800(6)	3300(11)	4800(16)	9900(33)	16800(56)	1500(5)	6600(22)
37-mm AT. *a.* 1 rd in ind. fbr. cntr. Weight 4.75 lbs.	151	252	378	757	1263	126	505
37-mm AT. *b.* 20 rds in ind. fbr. cntrs, in box. Weight 100 lbs.	140(7)	240(12)	360(18)	720(36)	1200(60)	120(6)	480(24)
81-mm Mort. Average weight per rd packed, 10 lbs. (D)	72	120	180	360	600	60	240
60-mm Mort. 18 rds in cloverleaf bundle. Weight 81 lbs. (E)	144(8)	252(14)	396(22)	792(44)	1332(74)	126(7)	522(29)
Grenade, AT, M9. 20 in box. Weight 40 lbs.	360(18)	600(30)	900(45)	1800(90)	3000(150)	300(15)	1200(60)
Grenade, Hand, Fragmentation. 25 in box. Weight 50 lbs.	350(14)	600(24)	900(36)	1800(72)	3000(120)	300(12)	1200(48)
75-mm How. 3 rds in bundle. Weight 69 lbs.	30(10)	51(17)	78(26)	156(52)	258(86)	24(8)	102(34)
105-mm How. 2 rds in bundle. Weight 127 lbs.	10(5)	18(9)	28(14)	56(28)	94(47)	8(4)	36(18)

Mines, AT. *a.* 5 mines in box. Weight 67 lbs.	50(10)	85(17)	130(26)	256(53)	445(89)	40(8)	175(35)
Mines, AT. *b.* 1 mine, unboxed. Weight 10.4 lbs.	69	115	173	346	576	57	230
Cal .45, Pistol. 2000 rds in box. Weight 110 lbs.	12000(6)	20000(10)	32000(16)	64000(32)	108000(54)	10000(5)	42000(21)
Cal .30, Blanks, special M3. 2000 rds in box. Weight 107 lbs.	12000(6)	22000(11)	32000(16)	66000(33)	112000(56)	10000(5)	44000(22)

(A) Truck capacities based on 20% dead weight overload, and are the maximum recommended loading.

(B) In bandoleers, 8 rds per clip, 6 clips per bandoleer, 24 bandoleers per box.

(C) In bandoleers, 5 rds per clip, 12 clips per bandoleers, 20 bandoleers per box.

(D) Based on 70% HE light packed in bundles of 6, weighing 54.3 lbs; 20% HE heavy packed in bundles of 3 weighing 42 lbs; 10% WP (smoke) packed in bundles of 3 weighing 45 lbs.

(E) Packed in ind. fbr. cntrs, in larger fbr. cntrs. of 6 rds. Three of the latter make up a cloverleaf bundle of 18 rds.

NOTE: Figures in parentheses denote number of boxes, chests, bundles, etc. Other figures denote number of rounds.

TABLE 11

Time Elements in Regimental Supply

(In the field under campaign conditions, the following time elements are the approximate periods required to perform the work indicated.)

WORK	Daylight	Dark
Distribution of Class-I supplies to regiment by higher echelon at one distributing point	½ hour	½ hour
Distribution of Class-I supplies to separate battalion by higher echelon or similar unit	¼ hour	¼ hour
Preparation of one day's Class-I supplies for issue at regimental Class-I distributing point (breakdown of ration)	30 min	1 hour
Physical distribution by regimental supply agencies of one field ration to kitchens	15 min	20 min
Division of one ration into three meals at kitchens	15 min	20 min
Kitchens to be taken off trucks, set up, and ready to begin cooking or vice versa	15 min	20 min
Kitchens to cook and prepare for serving a hot meal	2 hours	2½ hours
Kitchens to prepare a cold noon meal. The issue of this meal to take place usually coincident with serving of breakfast. (Included in item next above.)	1 hour	1½ hours
Serving a hot meal to troops from a kitchen truck when men are served at the truck	45 min	1 hour
Serving a hot meal to troops by means of carrying parties (assuming company mess location to be not farther than 1,000 yards from the most distant element of the company)	1½ hours	2 hours
Issue of extra ammunition to a battalion in an assembly area	30 min	40 min

OTHER TIME ELEMENTS

To load infantry ammunition vehicles at an ammunition supply point ..... ¼ hour

To load infantry weapons and ammunition carriers at a regimental ammunition distributing point ..... ¼ hour

To unload infantry ammunition train vehicles at positions ..... ¼ hour

Distribution to trucks of gasoline and oil in containers ..... ¼ hour

One man can handle ½ ton of supplies per hour, during a ten-hour day.

TABLE 12

Time and Space Factors, Tactical

1. The following arbritrary time and space factors are published to insure uniformity in the solution of map problems at the Infantry School. While they are based upon experience, it is not to be expected that they can invariably be applied in the field under all conceivable conditions.

a. Lengths of route columns in combat zone, foot troops only. (Formation: column of files on both sides of road, 2 yards between individuals. Motors, including field artillery, moving by bounds in rear.)

(1) *Day:*

Rifle Company	250 yards
Heavy Weapons Company	155 yards
Distance between platoons	20 yards
Distance between companies	50 yards
Battalion Hq & Hq Company	50 yards
Distance between Bn Hq & Hq Co and (other companies same as platoon)	
Battalion (5 companies)	1075 yards
Distance between battalions	100 yards
Regiment	*3625 yards

(2) *Night*: (Same formation as day except no distances between platoons and companies.)

Rifle Company	190 yards
Heavy Weapons Company	115 yards
Battalion Hq & Hq Company	50 yards
No distance between Companies	
Battalion	735 yards
Distance between battalions	20 yards
Regiment	*2450 yards

*(200 yards allowed for men of regimental headquarters company, attached medical men, and officers of the regiment.)

b. Time required to deploy is the time length of the column at 1½ miles per hour, plus a time distance of one-half the maximum frontage of the unit at 1½ miles per hour, plus ten minutes.

c. Time required to deliver uncoordinated attack by a battalion is time required to move to attack position by nearest covered route, plus time required to deploy, plus fifteen minutes to issue orders, plus time to issue extra ammunition if this has not been done. (See Table 11.)

TABLE 13

Characteristics of Infantry Weapons (Except Cannon Company)

(See Table 13-A)

WEAPON	Maximum Rate of Fire a (Rounds per minute)	Sustained Rate of Fire a b (Rounds per minute)	PROJECTILES		
			Maximum Range (yards)	Maximum Effective Range a (yards)	Effective Radius of Burst (yards) (Fragmentation)
Automatic Pistol, Caliber .45	21	10	1,600	50	—
U. S. Rifle, Caliber .30 (M1903)	10-15	10	3,950k 5,500l	600k 600l	—
U. S. Rifle, Caliber .30 (M1)	16-24	16	3,950k 5,500l	600	—
U. S. Carbine, Caliber .30 (M1)	40	25	2,500	300	—
Automatic Rifle, Caliber .30 (M1918) (BAR)	60c	40	3,950k 5,500l	600k 600l	—
Automatic Rifle, Caliber .30 (M1918) A2	350n 550d	40 40	3,950k 5,500l	600k 600l	—
Machine Gun, Caliber .30 (heavy)	400-525	125	3,950k 5,500l	1,800i 3,000jk 4,000jl	—
Machine Gun, Caliber .30 (light) e	400-550	40-60	3,950k 5,500l	1,800i 3,000jkq 4,000jlq	—
Machine Gun, Caliber .50 (flexible heavy barrel)	500	40-60	7,200	1,800i p 4,000j p q	—
37-mm Gun (M1916)	25	15	4,300	1,800i	10
37-mm Gun (M3) (Antitank)	30-35a	20	12,850su	1,800i p	10m
60-mm Mortar	30-35	18	1,985	——f	17
81-mm Mortar	30-35	18	3,290g 2,655h 2,470t	——f	25g r
4.2 inch Mortar, Chemical	20	5	2,400	——f	—
Hand Grenade, fragmentation	—	—	50	50	30
AT Grenades	4	—	—	75	—

NOTES

a. For other than full automatic weapons, personal proficiency is a controlling factor.

b. A variable factor, the time of endurance of which is limited by construction, heating, and other conditions influencing sustained or prolonged performance.

c. Semi-automatic.

d. Normal cyclic rate.

e. Machine gun, caliber .30 (1919) A4 tank has same ballistic qualities.

f. Within limits of maximum range. Observation is a controlling factor.

g. Light shell. (HE) Superquick fuze.

h. Heavy shell. (HE) delay action fuze.

i. Observed fire, distance varies with visibility.

j. Indirect fire.

k. M1906 or M2 ammunition.

l. M1 ammunition.

m. High explosive only.

n. Slow cyclic rate.

p. This range has no reference to armor penetration.

q. Gun not well suited to indirect fire.

r. No fragmentation—used for demolition purposes only.

s. (1) 45° angle of elevation; (2) 9625 at 15° elevation with windshield; 5220 without windshield.

t. Chemical (smoke) shell (W. P.) superquick fuze.

u. M51 APC, muzzle velocity 2900 f/s.

TABLE 13A

Characteristics of Cannon Company Weapons

CHARACTERISTICS	75mm Howitzer, Motor Carriage, M8	105mm Howitzer, Motor Carriage, M7
Weight (Approximate) (Includes crew armament and equipment)	29,000 lbs.	46,500 lbs.
Track	Full	Full
Armor	Below fender line, same as light tank. Above fender line, 1 1/8 to 1½ ins. Semi-turret, ½ to 1½ ins.	Hull below fender lines either armor or soft plate giving min. ballistic effectiveness of ½ in. armor. Sides, front rear above fender line ½ in. Top, none except upward sloping ½ in. surface over driver and engine comp.
Stability	Excellent. Relaying necessary after each round fired.	Excellent. Relaying necessary after each round fired.
Silhouette (Overall)	7 feet, 3 inches	8 feet, 2 3/4 inches
Crew	4- (Section consists of 8 men, 4 ride on platoon ammunition truck.)	7-(Section consists of 8 men, 1 rides on platoon ammunition truck.)
Traverse	360 degrees	37¾ degrees, (12¼ to the left, 25½ to the right)
Elevation	Minus 20 degrees, plus 40 degrees.	Minus 5 degrees, plus 32½ degrees.
Normal rate of fire	Short burst 6. Prolonged 3.	Short burst 4. Prolonged 2.
Maximum effective range (85% of extreme range)	8,080 Yds	9,950 Yds
Minimum ranges: (approx) Flat angle (direct laying)	30 Yds (For safety in combat)	50 Yds (For safety in combat)
High Angle (indirect laying for overhead fire) See note 1.	800 Yds (approx.)	800 Yds (approx.)

TABLE 13a.—(*Continued*)

CHARACTERISTICS	75mm Howitzer, Motor Carriage, M8	105mm Howitzer, Motor Carriage, M7
Ammunition a. Amount on motor carriage	40 rds	57 rds
b. Average amount carried in 2½-ton truck & trailer for each howitzer	69 rds	63 rds
c. Types	H. E., Smoke and AP	H. E. and AP
d. Approximate weight	Projectile w/fuze—14.6 lbs. Complete round packed—22 lbs.	Projectile w/fuze—32.7 lbs. Complete round packed—51 lbs.
e. Area in yards covered effectively by burst of HE shell	Depth—10 width—30 rad. of large fragments—150	Depth—15 width—50 rad. of large fragments—300
f. Unit of fire (rounds per piece)	127 estimated	96 estimated

Note 1. These are figured using charge 1 and firing over a mask occupied by friendly troops 12 feet above the howitzer. *They are to be used as a guide only.* The minimum range must be figured in *every* case as follows: Using the gun, the gunner measures the elevation in mils to the mask (angle of site to the mask). Add the following to this elevation: (1) The elevation for the piece-mask range taken for the weapon and charge used. (2) Two forks in mils at the piece-mask range taken from the firing tables for the weapon and charge used. (3) Using the mil relation (1 mil subtends 1 yard at 1000 yards) the number of mils subtended by 5 yards at the piece-mask range. The total of these four is the minimum elevation in mils at which the piece may be fired with safety to friendly troops on the mask. To find the minimum range in yards consult the firing tables for the weapon and charge used with this elevation in mils. For 75-mm Howitzer use FT-I-3. For 105-mm Howitzer use FT 105-H-3.

TABLE 14

Characteristics of Field Artillery Weapons in Infantry Divisions

CHARACTERISTICS	105-mm HOWITZER		155-mm HOWITZER	
Weight	4,300 lbs.		(M1918) 9,120 lbs.	(M1) 12,000 lbs.
Prime Mover	Truck, 2½-ton, 6x6		Truck, 4 ton, 6x6	
Normal rate of fire. (These may be exceeded for not to exceed one minute)	Short Bursts 4	Prolonged 2	Short Bursts 3	Prolonged 1
Maximum effective range (85% of extreme range.)	10,300		(M1918) 10,500 yds.	(M1) 13,800 yds.
Minimum Range (a) Flat angle (direct laying)	50 yds. (For safety)		60 yds. (For safety)	
(b) High angle (indirect laying)	These ranges must be figured in *every* case and depend upon the mask which must be cleared and whether or not it is occupied by friendly troops. (For minimum distances to which friendly troops can approach bursts, see Note 2.)			
Ammunition (a) Types	HE, Cml. & AP		HE & Cml.	
(b) Approximate weight	Projectile Fuzed 32.7	Complete round packed 51	Projectile Fuzed 95	Complete round packed 106
(c) Area covered effectively by burst of HE Shell	Depth 15	Width 50	Radius of large fragments 300	Depth 18	Width 60	Radius of large fragments 550
(d) Unit of fire (rounds per piece)	225		150	
Time to emplace or change from firing to traveling position	3 minutes		5 minutes	

Note 1—For characteristics of other Field Artillery weapons see paragraph 181, FM 101-10.

Note 2—Under the most favorable combat firing conditions, unsheltered friendly troops should be at least 200 yards from the fire of light artillery (75-mm and 105-mm) and 500 yards from the fire of medium or heavy artillery (4.5 inch, 155-mm and larger caliber). A greater safety zone will be frequently required. Increase in the safety limit is necessary when the artillery has not been able to adjust its fire due to lack of observation when the range is long, and when the terrain is covered with trees and houses or slopes down toward the enemy. The safety limit may be smaller when the infantry is sheltered from large shell fragments.

TABLE 15
Field Engineering Data

1. *Intrenching Tools.*—*a.* The rifle squad is issued the following small size tools for fortification work:

1 cutters, wire, hand: squad leader.
1 axe intrenching: second in command.
3 pick mattocks: 3 privates.
7 shovels: 7 privates.

Whenever practicable, full size intrenching tools should be made available.

b. Each Infantry Regiment carries one "Infantry Intrenching Tool Set." These are large size tools and the contents of the set are intended to be sufficient for the needs of one battalion. The principal items in the "Infantry Intrenching Tool Set" are as follows:

Axes	26	Saws	26
Bars, pinch	4	Shovels	250
Picks	125	Tape, tracing	3000 feet
Sandbags	500	Wire cutters, large	9

c. In addition, the divisional engineer battalion transports three Infantry Intrenching Tool Sets to be allotted to infantry units according to the needs of the situation.

2. *Intrenchments.*—Estimated times to excavate various hasty intrenchments in medium soil using large size tools not under harassing fire.

One man foxhole	2 hours
Two man foxhole (two men digging)	2 hours
Heavy cal .30 machine gun emplacement, open shallow type (two men digging)	1½ hours
Heavy cal .30 machine gun emplacement, open standing type (two men digging)	4½ hours
Heavy cal .30 machine gun emplacement, three foxhole type (three men digging)	2 hours
Light cal .30 machine gun emplacement, shallow type (two men digging)	½ hour
Light cal .30 machine gun emplacement, open standing type (two men digging)	2½ hours
Light cal .30 machine gun emplacement, three foxhole type (three men digging)	2 hours
37-mm antitank gun emplacement, shell hole type (four men digging)	1 hour
37-mm antitank gun emplacement, ramp types (three men digging)	2 hours
60-mm mortar emplacement (two men digging)	2 hours
81-mm mortar emplacement (two men digging)	5 hours

TABLE 15.—(*Continued*)

3. *Obstacles.*—Estimated times for erecting standard types of barbed wire entanglements using adequately supplied and properly organized wiring parties in daylight, not under harassing fire.

a. Double apron fence: Standard for tactical obstacle. 100 yards per hour.

b. 4 strand fence: Used as protective obstacle. 200 yards per hour.

c. For wiring at night increase time required by 50 percent.

TABLE 16

Loading Engineer Assault Boats

BASIC DATA

A method of loading engineer assault boats for a river crossing may be figured from the following basic data as to the capacity of the present standard engineer assault boat for any unit of the infantry regiment, with its equipment.

The capacity loads listed are exclusive of two engineer soldiers, who assist in paddling the loaded boat, and who remain with the boat to take it back across the stream for additional loads.

An assault boat will safely transport any one of the loads listed below:

9 men with individual weapons and equipment.

8 men with one light machine gun and 20 boxes of ammunition (5,000 rounds).

8 men with one heavy machine gun and 13 boxes of ammunition (3,250 rounds).

8 men with one .50 caliber machine gun and 4 boxes of ammunition (400 rounds).

7 men and the equipment of the advanced echelon of a battalion communication section.

7 men and one 81-mm mortar with 50 rounds of ammunition.

7 men and one 60-mm mortar with 150 rounds of ammunition.

The 37-mm gun, Antitank, M-3 is too heavy and bulky to be transported in an assault boat. It must be ferried across on a ponton or raft or some similar type of transportation, or cross on a bridge.

TABLE 17

Typical Loading Infantry Rifle Company In Assault Boats

Unit	T/O Strength	Loading	Boats Required	No. of Passengers*	Capacity
Fwd Ech Co Hq	2 0s 8 EM **	Co Hq (10) plus 1 Msgr from ea Plat	2	14	18
1 Rifle Platoon	1 0 45 EM	Plat Hq (less 1 Msgr)	1	9	9
		3 R Sqds	4	36	36
2 R Plats	2 0s 90 EM	Each loaded as above	10	90	90
Weapons Plat	1 0 38 EM	(T Cpl & 2 chauffeurs do not cross on boats)			
		Plat Hq See below.			
		LMG Sec: Sec Hq plus 1 Sqd with arms and Am	1	8	8
		Plat Hq (less Det) plus 1 Sqd with arms and Am	1	8	8
		60-mm Mortar Sec: 2 Sqds with arms and Am plus Sec Hq	2	14	14
		1 Sqd with arms and Am	1	5	7
Rifle Co	6 0s 192 EM		22	184	190
Crossing in assault boats	6 0s 178 EM				
Not crossing in assault boats	14				
Aggregate	198				

*Exclusive of boat crews.

**Includes supply sergeant.

TABLE 18

Time Factors Involved in Message Transmission

MESSAGE CENTER.—Handling other than by code clerk:

Maximum time permitted—2 minutes.

Cryptographing and decryptographing (one man working alone):

Cipher device or code	Groups per minute
Cipher device M94	1
Division Field Code	3
Air-Ground Liaison Code	3

NOTES—(SEE TABLE 20)

1. *SCR-195 Radio sets.—a.* The eight (8) radio sets SCR-195 issued to the regimental headquarters company are usually assigned on a basis of two per regimental headquarters and two per battalion headquarters. They may be employed for communication as follows:

(1) On the March.—Between commanders and close in reconnaissance detachments; between elements of a column, or between parallel columns at short distances. While marching, these sets are most effectively operated in pairs, each on a separate channel or frequency, unless a time schedule for operation is practicable.

(2) During development and deployment.—Similar to the march.

(3) During attack or defense.—Between battalions and companies, between the commander on reconnaissance and his command post, between commanders, and reconnaissance or security detachments, and sometimes between regiment and battalions.

2. *SCR-245 Radio sets.—a.* The vehicular radio set SCR-245 issued to the regimental headquarters company is usually used in the division radio net to communicate with division headquarters and other regiments of the division. Its ability to work with the SCR-284 (or SCR-288) allows flexibility in this use, and either of them may be substituted for the SCR-245 when their slightly lesser range permits. In such cases, the SCR-245 may be used to communicate with any other SCR-284 (or SCR-288) radio set or as an air-ground station.

b. The radio set SCR-245 issued to the antitank company is primarily for use in an antimechanized or antiair warning net. When no such operation is directed, it may be used as the regimental commander desires.

TABLE 18.—(*Continued*)

3. *SCR-536 Radio sets.*—These radio sets are best employed as follows:

a. Six (6) issued to the battalion. One in each company; one in battalion headquarters; and one available for OP, commander, antitank platoon, or staff officer when absent from the command post, or for any detached or security element.

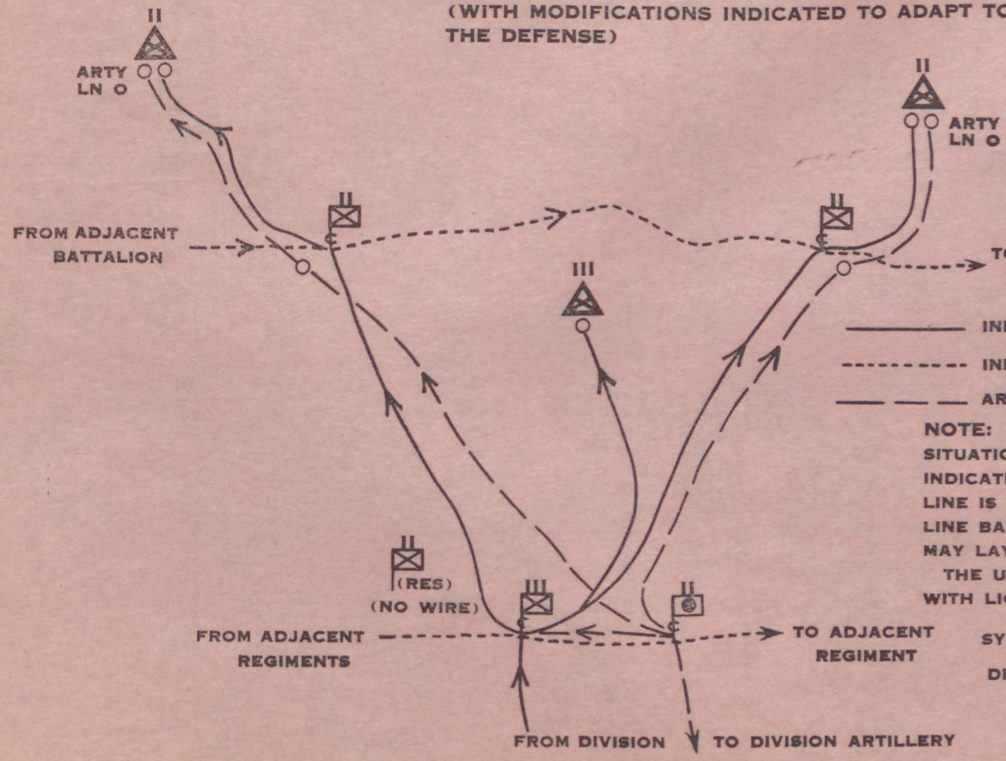
b. Five (5) sets issued to AT Co: One per company headquarters and each antitank platoon, one for moving commander or reconnaissance officer, or company OP, or with vehicles.

c. Five (5) sets issued to cannon company: one per company headquarters and each platoon; one for moving commander or executive officer or company OP.

TABLE 19

WIRE NET IN ATTACK FOR INFANTRY REGIMENT SUPPORTED BY BATTALION OF LIGHT ARTILLERY

(WITH MODIFICATIONS INDICATED TO ADAPT TO THE DEFENSE)



INFANTRY WIRE SYSTEM

INFANTRY ADDITIONAL WIRE FOR DEFENSE

ARTILLERY WIRE SYSTEM

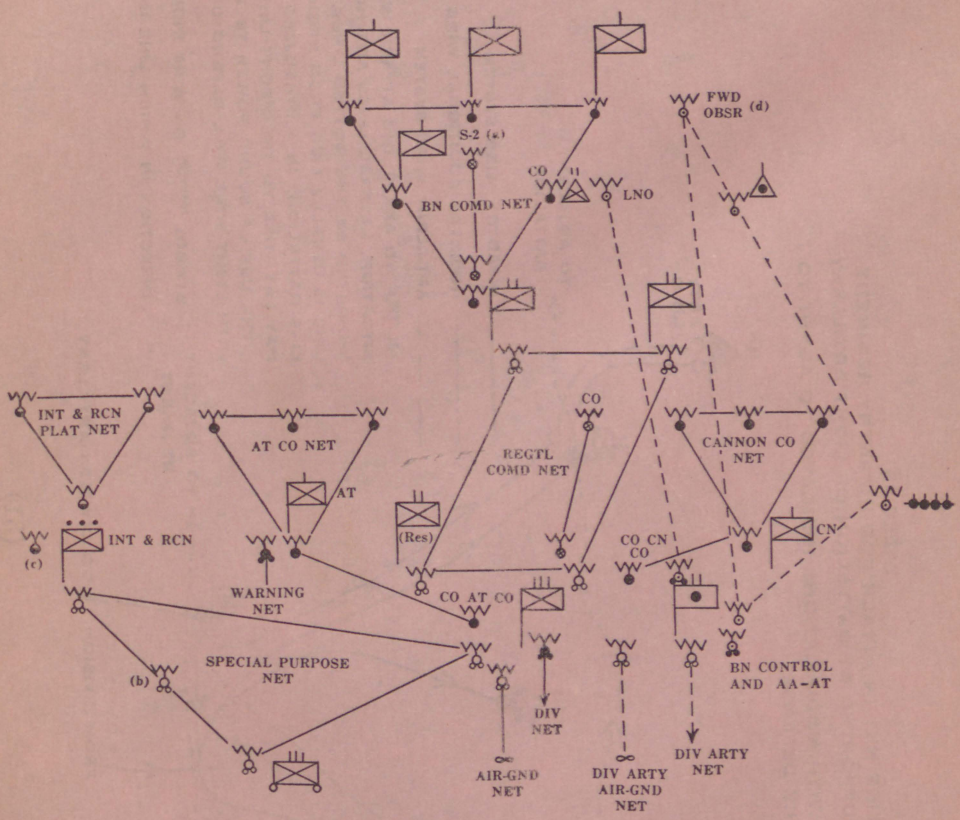
NOTE: TO ADAPT THE ATTACK WIRE NET TO A DEFENSIVE SITUATION, LATERAL LINES ARE NORMALLY LAID AS INDICATED BY THE DOTTED LINES. ALSO ONE ADDITIONAL LINE IS USUALLY LAID FROM REGIMENT TO EACH FRONT LINE BATTALION. IN A STABILIZED SITUATION BATTALIONS MAY LAY WIRE TO THE FRONT-LINE COMPANIES.

THE USE OF SOUND POWER TELEPHONE HANDSETS WITH LIGHT WIRE WILL DEPEND ON CIRCUMSTANCES.

SYMBOL → ON WIRE INDICATES DIRECTION IN WHICH LINE IS LAID

TABLE 20
RADIO NETS FOR INFANTRY REGIMENT SUPPORTED BY A BATTALION OF LIGHT ARTILLERY

(See Table 21)



LEGEND

- SCR—195—VOICE—PACK (SEE NOTE 1, TABLE 18)
- SCR—245—KEY & VOICE—VEHICULAR ONLY (SEE NOTE 2, TABLE 18)
- SCR—284—KEY & VOICE—VEHICULAR OR GROUND
- SCR—511—VOICE—PORTABLE
- SCR—536—VOICE—HAND PORTABLE (SEE NOTE 3, TABLE 18)
- SCR—608—VOICE—VEHICULAR
- SCR—610—VOICE—PORTABLE
- ——— INFANTRY NETS
- – – – ARTILLERY NETS

NOTES

a. May be used for other purposes.

b. May be used for CO, security, deception, liaison, replacements, or other purposes.

c. May be used for replacements, fixed observation, or for other purposes.

d. There may be more than one forward observer within a battalion area. In such cases additional nets would be required.

TABLE 21

9-15-42

Radio Sets, Characteristics

Set SCR	Basic Allowance No	Basic Allowance Organization	Type Signals Trans.	Type Signals Rec.	Range Miles	Frequency Kcs. Trans.	Frequency Kcs. Rec.	Power for Transmitter	Weight Lbs.	Description and Remarks
195	8	Per Inf Regtl Hq Co	Voice	Voice	5	52800-65800	52800-65800	Battery BA-32 20 hour life +144V + 4½V + 3V − 13½V	91 27*	Carried by one man, pack animal or vehicle. Weight includes spare parts chest. *Weight carried by one man for operation.
245	1	Per Inf Regtl Hq Co; AT Co of Regt	CW Tone Voice	CW Tone Voice	45* 35* 20*	2000-5250	1500-18000	Dynamotor 500V Driven by battery of vehicle.	320	Vehicular Set—Crystal-controlled operation possible provided crystals of appropriate frequencies are available; master oscillator operation normal *With both stations stationary
284	6 1	Per Regtl Hq Co Per Bn Hq Will replace the SCR-131 with the SCR-171	CW Voice	CW Voice	30 15 (approx)	3800-5800	3800-5800	Transmitter dynamotor and receiver power pack operating on 6 or 12 volt vehicular battery for vehicular use. Hand generator and receiver dry battery for ground use.	Approx. Portable 130 lbs. Veh. 270 lbs.	Primarily a vehicular set but may be operated on low power only as a ground station. Carried as a 2 or 3 man load. Has remote control, permitting installation of set outside CP available to personnel within CP for sending and receiving.
288	6 1	Stop Gap Set Per Regtl Hq Per Bn Hq	CW Voice	CW Voice	30 15	3500-6300	2300-6500	Hand Generator 6V and 280V	61	Can be installed in vehicle by improvised methods. Classed as limited procurement standard as a replacement for SCR-131 and SCR-171 pending issue of the SCR-284.
511	4	Regtl Int & Rcn Plat	Voice	Voice	5	3500-6000	3500-6000	1 dry Battery Block 5 hour life	14	Carried by one man, on foot, horse or motor vehicle. Crystal controlled on any one of 24 frequencies with spare unit for changing to any second frequency in the field carried with the set.
536	6 5	Bn (on approval of higher authority) AT Co	Voice	Voice	1	3500-6000	3500-6000	Batteries 1-BA37 1-BA38 15 hour life	5	Hand portable, operates on single pre-set frequency—24 frequencies available.

TABLE 22

Hours of Daylight and Darkness

DAYLIGHT BEGINS			DARKNESS BEGINS	
Fort Benning	Gettysburg and Virginia Military Area	MONTH	Fort Benning	Gettysburg and Virginia Military Area
0815	0730	January 1-10	1915	1855
0815	0730	January 11-20	1925	1905
0810	0725	January 21-31	1935	1920
0805	0715	February 1-10	1945	1930
0755	0705	February 11-20	1955	1945
0745	0650	February 21-29	2000	1955
0735	0640	March 1-10	2005	2005
0725	0620	March 11-20	2015	2015
0710	0605	March 21-31	2020	2030
0700	0545	April 1-10	2030	2040
0645	0530	April 11-20	2035	2050
0635	0515	April 21-30	2040	2100
0625	0505	May 1-10	2050	2110
0615	0455	May 11-20	2055	2120
0610	0445	May 21-31	2105	2130
0610	0440	June 1-10	2110	2135
0605	0435	June 11-20	2115	2140
0610	0440	June 21-30	2115	2145
0615	0445	July 1-10	2115	2145
0620	0450	July 11-20	2110	2140
0625	0500	July 21-31	2105	2130
0625	0510	August 1-10	2100	2120
0640	0520	August 11-20	2050	2110
0645	0530	August 21-31	2040	2055
0650	0540	September 1-10	2025	2035
0700	0550	September 11-20	2010	2020
0705	0600	September 21-30	2000	2000
0710	0610	October 1-10	1945	1945
0720	0620	October 11-20	1935	1930
0725	0630	October 21-31	1920	1915
0735	0640	November 1-10	1915	1900
0745	0655	November 11-20	1905	1850
0755	0710	November 21-30	1900	1845
0800	0715	December 1-10	1900	1840
0810	0725	December 11-20	1905	1840
0815	0730	December 21-31	1915	1845

NOTES

1. The above figures (Eastern War Time) represent approximate divisions between daylight and darkness in so far as such phenomena affect military operations. They do not represent exact nautical or astronomical times.
2. The 24 hour clock system is the official time system for the Army. It is prescribed by Section I Circular 187 WD, 6/13/42. The first two digits on the left are the hours after midnight. The remaining two digits indicate the minutes past the hour.

TABLE 23

Loading Table, Infantry Regiment

CONTENTS

EXPLANATORY NOTES

1. The following tables present one method of vehicle loading in the Infantry Regiment. Particular attention has been given to reconciling required loads (T/BA) with vehicle capacities and their tolerances; to provide minimum emergency operating personnel with each crew-served weapon; and to indicate the principal items of functional equipment required on each vehicle. These tables are particularly adapted to the purposes of the Infantry School. They have not been approved by the War Department and are subject to change.

2. In estimating weights of loads the following extracts from 1st Indorsement, Office Chief of Infantry, Jan. 12, 1942 (CI 461/FM 7-55) have been used as a guide:

"x x x the rated pay-load of all infantry vehicles is exclusive of the driver and assistant driver, except in the case of ¼-ton trucks x x x the rated capacity of the ¼-ton truck is 600 lbs. exclusive of the driver and his equipment.

x x x the minimum personnel necessary to operate a weapon should accompany it when it is on a weapon carrier. x x x it may be considered permissible to overload with *personnel* to 40% of the rated capacity of the vehicle. If it is necessary to overload with equipment, the overload should not exceed 20% of the rated capacity. x x x To obviate excessive overloading of weapon carriers in any instance, a readjustment of ammunition loads should be made between weapon carriers and vehicles of the ammunition train."

3. Acting upon instructions issued by the Commanding General, Ground Forces, to the President, Infantry Board, the weights of "basic" soldiers and their equipment are not considered in loads. It is assumed that "basics" will be consumed in the normal attrition in each unit. In order to balance personnel in the T/O with Table 4, Reference Data, "basics" have been listed in the following tables without increasing the approximate weight of loads.

LOADING TABLE 23a

Rifle Company, Infantry Regiment

(Nine in Regiment)

Truck ¼-ton and ¼-ton Trailer	Pvt (Gunner) Pvt (Asst Gunner) Pvt (Chauffeur)*	Truck ¼-ton and ¼-ton Trailer	Cpl (Transport) Pvt (Gunner) Pvt (Chauffeur)*
3 ——	Mortars, 60-mm (complete with Am bags and shoulder pads)	2 ——	LMGs (complete with spare parts and carrying slings)
108 rds	60-mm Am**	6,000 rds	Cal .30 LMG Am**
200 rds	BAR Am for AA defense	200 rds	BAR Am for AA defense
1 set	T/BA truck equipment	90 ——	Grenades AT M9
2 ——	Reel Equipment CE-11	1 set	T/BA truck equipment
(Approx. weight of load 1,100 lbs.)		(Approx. weight of load 1,200 lbs.)	

* Weight of driver not included. (See paragraph 2, Explanatory Notes)

** While the T/BA provides 90 rounds per mortar and 6,000 rounds per LMG on the carrier, the weights of personnel and equipment make it desirable to load 162 rounds of mortar Am and 6,000 rounds of LMG Am on the Bn Am Tn. (See paragraph 2, Explanatory Notes and Loading Table 23*e*.)

LOADING TABLE 23b

Heavy Weapons Company, Infantry Regiment

(Three in Regiment)

Company Headquarters

Truck ¼-ton	Capt (Co Comdr) Sgt (Rcn and Sig) Pvt (Messenger) Pvt (Chauffeur)*	Truck ¼-ton	Lt (Rcn O) Pvt (Messenger) Pvt (Bugler) Pvt (Chauffeur)*
1 ——	Range finder	1 set	T/BA truck equipment
1 ——	Aiming circle	8 ——	Reel Equipment CE-11
1 ——	Drawing board (complete)	(Approx. weight of load 700 lbs.)	
1 set	T/BA truck equipment		
(Approx. weight of load 800 lbs.)			

Truck ¾-ton Weapon Carrier	Sgt (Transport) Sgt (Supply) Techn 4th (Mechanic, motor)* Pvt (Chauffeur)*
1 set	Tools, Unit equipment No. 1
1 set	Tools, Motor vehicle mechanics'
1 set	T/BA truck equipment
(Approx. weight of load 950 lbs.)	

Caliber .30 Machine Gun Platoon

(Two in the company)

Truck ¼-ton	Lt (Plat Comdr) Cpl (Instrument) Cpl (Transport) Pvt (Chauffeur)*
1 ——	Range finder
1 ——	Aiming circle
1 ——	Angle site instrument
1 ——	Drawing board (complete)
1 set	T/BA truck equipment
(Approx. weight of load 750 lbs.)	

Caliber .30 Machine Gun Platoon.—(*Continued*)

	1st Squad		2nd Squad
Truck ¼-ton and ¼-ton Trailer	Cpl (Squad Ldr) Pvt (Gunner) Pvt (Chauffeur)*	Truck ¼-ton and ¼-ton Trailer	(Same personnel as 1st Squad)
1 ——	Cal .30 machine gun	1 ——	Cal .30 machine gun
1 set	Spare parts, accessories, carrying slings, etc. SNL A-5	1 set	Spare parts accessories, carrying slings, etc. SNL A-5
36 ——	Am chests (9,000 rds)	36 ——	Am chests (9,000 rds)
10 ——	Grenades AT M9	200 rds	BAR Am for AA defense
1 set	T/BA truck equipment		
(Approx. weight of load 1,356 lbs.)		10 ——	Grenades AT M9
		1 set	T/BA truck equipment
		(Approx. weight of load 1,400 lbs.)	

* Weight not included in load. (See paragraph 2, Explanatory Notes)

Note: The 1st and 3d squads; the 2d and 4th squads; and the 1st and 2d platoons, are identical.

81-mm Mortar Platoon

Truck ¼-ton	Lt (Plat Comdr) Cpl (Instrument) Cpl (Transport) Pvt (Chauffeur)
1 ——	Range finder
1 ——	Aiming circle
1 ——	Drawing board (complete)
1 set	T/BA truck equipment
(Approx. weight of load 750 lbs.)	

	1st Squad		2nd Squad
Truck ¼-ton and ¼-ton Trailer	Cpl (Squad Ldr) Pvt (Gunner) Pvt (Chauffeur)*	Truck ¼-ton and ¼-ton Trailer	(Same personnel as 1st Squad)
1 ——	81-mm mortar, complete with accessories, Am bags and shoulder pads. SNL A-33	1 ——	81-mm mortar, complete with accessories, Am bags and shoulder pads. SNL A-33
66 rds	81-mm Am	66 rds	81-mm Am
10 ——	Grenades AT M9	200 rds	BAR Am for AA defense
2 ——	Reel Equipment CE-11	10 ——	Grenades AT M9
1 set	T/BA truck equipment	1 set	T/BA truck equipment
(Approx. weight of load 1,300 lbs.)		(Approx. weight of load 1,350 lbs.)	

* Weight not included in load. (See paragraph 2, Explanatory Notes)

Note: The 1st, 3d and 5th squads are identical.

The 2d, 4th and 6th squads are identical.

LOADING TABLE 23c

Battalion Headquarters and Headquarters Company, Infantry Regiment

(Three in Regiment)

Battalion and Company Headquarters

Truck ¼-ton	Lt Col (Bn Comdr)
	Capt (S-3)
	Stf Sgt (Operations)
	Pvt (Chauffeur)*
1 set	Radio SCR 536
1 set	Radio SCR 195**
200 rds	BAR Am for AA defense
1 set	T/BA truck equipment
(Approx. weight of load 700 lbs.)	

Truck ¼-ton and ¼-ton Trailer	Capt (S-1 and Co. Comdr)
	Capt (Bn Surg)***
	Stf Sgt (Sgt Maj)
	Pvt (Chauffeur)*
1 set	C P equipment
1 ——	Small wall tent, complete
20 ——	Grenades AT M9****
1 set	T/BA truck equipment
(Approx. weight of load 1,000 lbs.)	

Truck ¼-ton Amphibian	Lt (S-2)
	Sgt (Intelligence)
	Pvt (Scout)
	Pvt (Chauffeur)*
1 ——	Telescope M-4
1 set	Radio SCR 195**
200 rds	BAR Am for AA defense
1 set	T/BA truck equipment
(Approx. weight of load 700 lbs.)	

Truck ¼-ton	Lt (T O)
	Sgt (Supply)
	Pvt (Bugler)
	Pvt (Chauffeur)*
10 ——	Grenades AT M9
1 set	T/BA truck equipment
(Approx. weight of load 700 lbs.)	

Truck ¾-ton Weapon Carrier	Sgt (Motor)
	Techn 4th (Mechanic, motor)
	Techn 5th (Mechanic, motor)
	Pvt (Chauffeur)*
1 set	Tools, Unit Equipment No. 1
2 sets	Tools, Motor vehicle mechanics'
200 rds	BAR Am for AA defense*****
10 ——	Grenades AT M9
1 set	T/BA truck equipment
(Approx. weight of load 1,200 lbs.)	

* Weight not included in load. (See paragraph 2, Explanatory Notes)
** From Regimental Communication Platoon.
*** From Battalion Medical Section.
**** 10 Grenades for Clerk, Hqrs marching with foot elements.
***** For BAR on M24A1 pedestal mount.

Battalion Headquarters & Headquarters Co.—(*Continued*)

Communication Platoon

Truck	Lt (Com O)
¼-ton	Stf Sgt (Com Chief)
	Sgt (Wire Chief)
	Pvt (Chauffeur)*
1 set	Panels, AP 30 C or D
1 set	T/BA truck equipment
(Approx. weight of load 700 lbs.)	

Truck	Sgt (Msg Cen Chief)
¼-ton	Pvt (Clerk, record)
	Pvt (Messenger)
	Pvt (Messenger)
	Pvt (Chauffeur)*
1 set	Message center equipment
10 ——	Grenades AT M9
1 set	T/BA truck equipment
(Approx. weight of load 900 lbs.)	

Truck	Techn 5th (Clerk,
¼-ton	record)
	Pvt (Clerk, record)
	Pvt (Messenger)
	Pvt (Messenger)
	Pvt (Chauffeur)*
1 set	Message center equipment
10 ——	Grenades AT M9
1 set	T/BA truck equipment
(Approx. weight of load 900 lbs.)	

Truck	Techn 5th (Lineman)
¼-ton	Pvt (Lineman)
	Pvt (Lineman)
	Pvt (Chauffeur)*
1 ——	Reel unit RL-31
2 ——	Reels DR 4 (4 mi. W-130)
1 ——	Axle RL 27-A
2 ——	Telephones EE-8-A
1 ——	Pike, wire
1 set	Lineman's equipment TE-21
	Accessories (Tape, tags, batteries, etc.)
1 set	T/BA truck equipment
(Approx. weight of load 900 lbs.)	

Truck	Sgt (Radio Chief)
¼-ton	Techn 4th (Operator, radio)
	Techn 5th (Operator, radio)
	Pvt (Chauffeur)*
1 set	Radio SCR-284
1 set	Telegraph TG-5A
1 ——	Projector, signal, M4, with signals
1 set	Panels, AP 30 C or D
	Accessories (Pyrotechnics, batteries, ground rods, etc.)
200 rds	BAR Am for AA defense
1 set	T/BA truck equipment
(Approx. weight of load 830 lbs.)	

Battalion Headquarters & Headquarters Co.—(*Continued*)

Communication Platoon.—(*Continued*)

¼-ton Trailer

2 ——	Reels DR 4 (4 mi W-130)
2 ——	Axles RL 27-A
3 ——	Telephones EE-8-A
1 set	Lineman's equipment TE-21
10 ——	Reels DR 8 (5 mi W-130)
1 ——	Switchboard BD 71
8 ——	Reel equipment CE-11
1 ——	Chest, pack, BC-5 Accessories (Tape, tags, batteries, etc.)
200 rds	BAR Am for AA defense

(Approx. weight of load 500 lbs.)

¼-ton Trailer

2 ——	Chests, CH-33, for SCR 195's
2 ——	Chests, pack, BC-5
10 ——	Reels DR 8 (5 mi W-130)
	Accessories (Batteries, ground signals, etc.)

(Approx. weight of load 400 lbs.)

*Weight not included in load. (See pargraph 2, Explanatory Notes)

Antitank Platoon

Truck ¼-ton	Lt. (Plat Comdr)
	Stf Sgt (Plat)
	Cpl (Agent)
	Pvt (Chauffeur)*
200 rds	BAR AM
10 ——	Grenades AT M9
1 set	T/BA truck equipment

(Approx. weight of load 750 lbs.)

1st Squad

Truck ¼-ton	Sgt (Section leader)
	Cpl (Squad leader)
	Pvt (Gunner)
	Pvt (Chauffeur)*
1 set	Spare parts and equipment (See SNL A-44)
20 rds	37-mm Am***
1 set	T/BA truck equipment

Tows 37-mm gun

(Approx. weight of load 750 lbs.)

Truck ¼-ton	Pvt (Gunner, Asst)
	Pvt (Am bearer)
	Pvt (Basic)**
	Pvt (Chauffeur)*
80 rds	37-mm Am***
1 set	T/BA truck equipment

(Approx. weight of load 870 lbs.)

Battalion Headquarters & Headquarters Co.—(*Continued*)

Antitank Platoon.—*(Continued)*

2d Squad

Truck	Cpl (Squad leader)	Truck	Pvt (Gunner, Asst)
¼-ton	Pvt (Gunner)	¼-ton	Pvt (Am bearer)
	Pvt (Messenger)		Pvt (Messenger)
	Pvt (Chauffeur)*		Pvt (Basic)**
			Pvt (Chauffeur)*
1 set	Spare parts and equipment (See SNL A-44)	80 rds	37-mm Am***
		1 set	T/BA truck equipment
20 rds	37-mm Am***	(Approx. weight of load 1070 lbs.)	
1 set	T/BA truck equipment		
Tows 37-mm gun			
(Approx. weight of load 750 lbs.)			

3d Squad

Truck	Sgt (Section leader)	Truck	Pvt (Gunner, Asst)
¼-ton	Cpl (Squad leader)	¼-ton	Pvt (Am bearer)
	Pvt (Gunner)		Pvt (Co Aid)****
	Pvt (Chauffeur)*		Pvt (Basic)**
			Pvt (Chauffeur)*
1 set	Spare parts and equipment (See SNL A-44)	80 rds	37-mm Am***
		1 set	T/BA truck equipment
20 rds	37-mm Am***	(Approx. weight of load 1070 lbs.)	
1 set	T/BA truck equipment		
Tows 37-mm gun			
(Approx. weight of load 750 lbs.)			

4th Squad

Truck	Cpl (Squad leader)	Truck	Cpl (Transport)
¼-ton	Pvt (Gunner)	¼-ton	Pvt (Am bearer)
	Pvt (Gunner, Asst)		Pvt (Basic)**
	Pvt (Chauffeur)*		Pvt (Chauffeur)*
1 set	Spare parts and equipment (See SNL A-44)	80 rds	37-mm Am**
		10 ——	Grenades AT M9
		1 set	T/BA truck equipment
20 rds	37-mm Am***	(Approx. weight of load 900 lbs.)	
1 set	T/BA truck equipment		
Tows 37-mm gun			
(Approx. weight of load 750 lbs.)			

*Weight not included in load (See paragraph 2, Explanatory Notes)

**Weight not included in load (See paragraph 3, Explanatory Notes)

***T/BA provides 200 rds of Am with weapon. Only 100 carried to reduce overload. Additional rounds (400) loaded on Bn Am Train and general supply truck, Platoon Headquarters, Transportation Platoon, Service Company. (See Table 23*e* and paragraph 2, Explanatory Notes.)

****From Bn Medical Section

Battalion Headquarters & Headquarters Co.—(*Continued*)

Ammunition and Pioneer Platoon

Truck ¼-ton and ¼-ton Trailer	Lt (Plat leader) Cpl (Squad leader) Pvt (Am bearer) Pvt (Chauffeur)*	Truck ¼-ton and ¼-ton Trailer	Cpl (Squad leader) Pvt (Am bearer) Pvt (" ") Pvt (Chauffeur)*
½ set	Pioneer equipment, Engr squad	½ set	Pioneer equipment, Engr squad
1 kit	Demolition	1 kit	Demolition
200 rds	BAR Am for AA defense	10 ——	Grenades AT M9
1 set	T/BA truck equipment	1 set	T/BA truck equipment
(Approx. weight of load 1000 lbs.)		(Approx. weight of load 1000 lbs.)	

*Weight not included in load (See paragraph 2, Explanatory Notes)

LOADING TABLE 23d

Headquarters Company, Infantry Regiment

Truck ¾-ton Command	Col (Regtl Comdr) Major (S-3) Mr Sgt (Operations) (S)* Pvt (Chauffeur)*
200 rds	BAR Am for AA defense
1 set	T/BA truck equipment
Regtl Comdr's personal baggage	
(Approx. weight of load 700 lbs.)	
Truck ¼-ton Amphibian	Capt (S-2) Major (Regtl Surg) (M) Techn 5th (Draftsman) (I) Pvt (Chauffeur)*
10 ——	Grenades AT M9
1 ——	Telescope M4
1 set	T/BA truck equipment
(Approx. weight of load 775 lbs.)	
Truck ¼-ton	Capt (Co Comdr) 1st Sgt Pvt (Bugler) Pvt (Chauffeur)*
10 ——	Grenades AT M9
1 set	T/BA truck equipment
(Approx. weight of load 700 lbs.)	
Truck ¼-ton and Trailer ¼-ton	Lt Col (Ex O) Capt (S-1) W O (Asst S-1) Pvt (Chauffeur)*
200 rds	BAR Am for AA defense
1 set	CP equipment (light)
1 set	T/BA truck equipment
(Approx. weight of load 950 lbs.)	
Truck ¼-ton	1st Lt (Liaison) 1st Lt (Liaison) 1st Lt (Liaison) Pvt (Chauffeur)*
200 rds	BAR Am for AA defense
1 set	T/BA truck equipment
(Approx. weight of load 700 lbs)	
Truck ¾-ton Weapon Carrier	Sgt (Transport) Techn 4th (Mechanic, motor) Pvt (Chauffeur)*
1 set	Tools, Unit Equipment No. 1
1 set	Tools, motor vehicle mechanics'
10 ——	Grenades AT M9
1 set	T/BA truck equipment
(Approx. weight of load 950 lbs.)	

Headquarters Company.—*(Continued)*

Truck 2½-ton Cargo		Mr Sgt (Sgt Maj) (S) Sgt (Supply) Techn 4th (Stenographer) (S) Techn 4th (Clerk, Hq) (S) Techn 4th (Clerk, Hq) (S) Pvt (Orderly) Pvt (Orderly) Pvt (Orderly)* Pvt (Chauffeur)*
150	——	Grenades, fragmentation
1	set	CP equipment (heavy), including tentage, field desk, drafting and duplicating equipment, lanterns, etc. Staff bedding rolls, including S-4 and Asst S-4
300	rds	Cal .50 M G Am for AA defense**
3,120	rds	Cal .30 Carbine Am
21	rds	Cal .45 Pistol Am
270	——	Grenades AT M9
286	rds	Cal .30 Blanks, special, M3
4	——	Test equipment IE-17-A***
1	——	Signal generator I-72-A***
4	——	Reels DR 4 (9 mi W-130)***
1	set	T/BA truck equipment

(Approx. weight of load 5,000 lbs.)

* Weight not included in load. (See paragraph 2, Explanatory Notes)
** For Cal .50 M G HBM2 on M32 truck mount
*** For Communication Platoon
(S) From Staff Section, Service Company
(M) From Regimental Medical Detachment
(I) From Intelligence and Reconnaissance Platoon

Note: Attached Chaplains (3) are not shown on the loading table. The Chaplains' outfits are carried on the general supply truck in the Service Company. (Loading Table 23*e*) Transportation will be furnished for the Chaplains by regiment or higher authority to satisfy their particular requirements in each situation.

Headquarters Company.—(*Continued*)

Communication Platoon

Truck	1st Lt (Com O)
¼-ton	W O (Asst Com O)
	Pvt (Operator, radio)
	Pvt (Chauffeur)*
1 set	Radio SCR 284
200 rds	BAR Am for AA defense
1 set	T/BA truck equipment

(Approx. weight of load 925 lbs.)

Message Center

Truck	Stf Sgt (Msg Cen Chief)
¼-ton	Techn 5th (Operator, switchboard)
	Pvt (Messenger)
	Pvt (Chauffeur)*
1 ——	Reel RL-31
1 set	Message center equipment
1 set	Panels AP 30 C or D
1 ——	Projector M4 with signals
1 set	T/BA truck equipment

(Approx. weight of load 780 lbs.)

Truck	Stf Sgt (Wire Chief)
¼-ton	Pvt (Operator, switchboard)
	Pvt (Messenger)
	Pvt (Chauffeur)*
1 ——	Reel RL-31
1 set	Message center equipment
1 set	Panels AP 30 C or D
10 ——	Grenades AT M9
1 set	T/BA truck equipment

(Approx. weight of load 780 lbs.)

Radio and Visual Section

Truck	Stf Sgt (Radio Chief)
¾-ton	Techn 4th (Operator, radio)
Command	Techn 4th (Electrician)
**	Pvt (Operator, radio)*
	Pvt (Chauffeur)*
1 set	Radio SCR 245 with tuning unit TU-25-A
2 sets	Radio SCR 195
1 ——	Frequency meter SCR 211-A
1 ——	Test set I-56
10 ——	Grenades AT M9
1 set	T/BA truck equipment

(Approx. weight of load 1,200 lbs.)

Truck	Techn 4th (Operator, radio)
¼-ton	Techn 4th (Operator, radio)
	Techn 4th (Operator, radio)
	Pvt (Chauffeur)*
1 set	Radio SCR 284
4 sets	Telegraph TG-5-A
4 ——	Coils C-161
10 ——	Grenades AT M9
1 set	T/BA truck equipment

(Approx. weight of load 950 lbs.)

Headquarters Company.—(*Continued*)

Radio and Visual Section.—(*Continued*)

Truck ¼-ton	Techn 4th (Operator, radio)	Truck ¼-ton	Techn 4th (Operator, radio)
	Techn 5th (Operator, radio)		Techn 5th (Operator, radio)
	Techn 5th (Operator, radio)		Techn 5th (Operator, radio)
	Pvt (Chauffeur)*		Pvt (Chauffeur)*
1 set	Radio SCR 284	1 set	Radio SCR 284
200 rds	BAR Am for AA defense	200 rds	BAR Am for AA defense
1 set	T/BA truck equipment	1 set	T/BA truck equipment
(Approx. weight of load 925 lbs.)		(Approx. weight of load 925 lbs.)	

Wire Section

Truck ¼-ton	Techn 5th (Lineman T & T)	Truck ¼-ton	Techn 5th (Lineman T & T)
	Pvt (Lineman T & T)		Pvt (Lineman T & T)
	Pvt (Lineman T & T)		Pvt (Lineman T & T)
	Pvt (Chauffeur)*		Pvt (Chauffeur)*
2 ——	Reels DR 4 (4 mi W-130)	2 ——	Reels DR 4 (4 mi W-130)
1 ——	Reel unit RL-31	1 ——	Reel unit RL-31
1 ——	Axle RL 27-A	1 ——	Axle RL 27-A
1 ——	Telephone EE-8-A	1 ——	Telephone EE-8-A
1 ——	Pike, wire	1 ——	Pike, wire
1 set	Lineman's equipment TE-21	1 set	Lineman's equipment TE-21
	Accessories (Tape, tags, batteries, etc.)		Accessories (Tape, tags, batteries, etc.)
1 set	T/BA truck equipment	1 set	T/BA truck equipment
(Approx. weight of load 900 lbs.)		(Approx. weight of load 900 lbs.)	

Headquarters Company.—(*Continued*)

Wire Section.—(*Continued*)

¼-ton Trailer		¼-ton Trailer	
1 ———	Reel DR 4 (2 mi W-130)	1 ———	Reel DR 4 (2 mi W-130)
4 ———	Reel equipment CE-11	4 ———	Reel equipment CE-11
3 ———	Telephones EE-8-A	3 ———	Telephones EE-8-A
2 ———	Chests, pack, BC-5	2 ———	Chests, pack, BC-5
2 ———	Reels DR 8 (1 mi W-130)	2 ———	Reels DR 8 (1 mi W-130)
1 set	Tool equipment TE-41	1 ———	Switchboard BD-72
1 set	Lineman's equipment TE-21	2 sets	Lineman's equipment TE-21
1 ———	Switchboard BD-72		Accessories (Tape, tags, batteries, etc.)
	Accessories (Tape, tags, batteries, etc.)	(Approx. weight of load 350 lbs.)	
(Approx. weight of load 350 lbs.)			

* Weight not included in load. (See paragraph 2, Explanatory Notes)

** It is assumed this truck is equipped with oversize 12-volt battery and super-charging generator to accommodate the SCR-245 radio set.

Notes: 1. The two additional SCR 284 radio sets are mounted on ¼-ton trucks carrying the Platoon Commander, Intelligence and Reconnaissance Platoon, this table, and the Commanding Officer, Service Company, loading table 23*e*.

2. Additional communication equipment is loaded on the 2½-ton cargo truck carrying CP equipment in Company Headquarters, this table. Fifty-six (56) drums DR 8 (14 mi W-130) are loaded on the general supply truck, Headquarters, Transportation Platoon, Service Company, loading table 23*e*.

3. It is assumed that the six (6) Lineman, T and T, for the Antitank Company will march with the foot elements of Headquarters Company until a situation arises requiring their services with the Antitank Company.

Headquarters Company.—(*Continued*)

Intelligence and Reconnaissance Platoon

Truck	1st Lt (Plat Ldr)
¼-ton Amphibian	Stf Sgt (Plat) Techn 5th (Operator, radio) Pvt (Chauffeur)*
1 set	Radio SCR 284
1 set	Radio SCR 511
200 rds	BAR Am for AA defense
1 set	T/BA truck equipment
(Approx. weight of load 925 lbs.)	

1st Squad

Truck	Sgt (Sqd Ldr)	Truck	Pvt (Scout, observer)
¼-ton Amphibian	Pvt (Operator, radio) Pvt (Scout, observer) Pvt (Chauffeur)*	¼-ton Amphibian	Pvt (Scout, observer) (P) Pvt (Basic) (P)** Pvt (Basic)** Pvt (Chauffeur)*
1 set	Radio SCR 511		
200 rds	BAR Am for AA defense	10 ———	Grenades AT M9
1 set	T/BA truck equipment	1 set	T/BA truck equipment
(Approx. weight of load 700 lbs.)		(Approx. weight of load 500 lbs.)	

Truck	Cpl (Asst Sqd Ldr)
¼-ton Amphibian	Pvt (Scout, observer) Pvt (Basic)** Pvt (Chauffeur)*
20 ———	Grenades AT M9
1 set	T/BA truck equipment
(Approx. weight of load 500 lbs.)	

2d Squad

(Same as the 1st Squad with the deletion of the basic from platoon headquarters in second truck)

* Weight not included in load. (See paragraph 2, Explanatory Notes)
** Weight not included in load. (See paragraph 3, Explanatory Notes)
(P) From platoon headquarters

LOADING TABLE 23e

Service Company, Infantry Regiment

Company Headquarters

Truck	Major (S-4)
¼-ton	W O (Asst S-4)
	Techn 5th (Clerk, Hq)**
	Pvt (Chauffeur)*
200 rds	BAR Am for AA defense
1 set	T/BA truck equipment
(Approx. weight of load 800 lbs.)	

Truck	Capt (Comdr Serv Co)
¼-ton	Techn 5th (Operator, radio) (H)
	Pvt (Operator, radio) (H)
	Pvt (Chauffeur)*
1 set	Radio SCR 284 (H)
10 ——	Grenades AT M9
1 set	T/BA truck equipment
(Approx. weight of load 900 lbs.)	

Truck	1st Sgt
¾-ton	Sgt (Supply)
Weapon	Techn 4th (Mechanic, motor)
Carrier	Techn 4th (Mechanic, motor)
	Techn 5th (Mechanic, motor)*
	Pvt (Chauffeur)*
1 set	Tools, Unit Equipment No. 1
3 sets	Tools, motor mechanics'
10 ——	Grenades AT M9
1 set	T/BA truck equipment
(Approx. weight of load 1,500 lbs.)	

Truck	Capt (Mun O)**
¾-ton	W O (Asst Mun O)**
Weapon	Sgt (Ammunition)**
Carrier	Pvt (Orderly)*
	Pvt (Chauffeur)*
200 rds	BAR Am for AA defense
2 ——	Officers' bedding rolls
10 ——	Grenades AT M9
1 set	T/BA truck equipment
(Approx. weight of load 850 lbs.)	

Service Company.—(*Continued*)

Company Headquarters.—(*Continued*)

Truck	Stf Sgt (Mess)
2½-ton	Techn 4th (Cook)
Cargo	Techn 4th (Cook)
	Techn 5th (Cook)
	Techn 5th (Armr Artif)
	Pvt (Carpenter)
	Pvt (Orderly)*
	Pvt (Chauffeur)*
1 set	T/BA company equipment, including field ranges, food containers, water containers, tentage, lanterns, tools, etc.
300 rds	Cal .50 Am for AA defense***
200 rds	BAR Am for AA defense
1 set	T/BA truck equipment
(Approx. weight of load 4,500 lbs.)	

Trailer	Officers' bedding rolls
1-ton	Rations
	Gas defense equipment
	Company records
	Remaining TBA company equipment, including cleaning and preserving materials, etc.
(Approx. weight of load 1,200 lbs.)	

* Weight not included in load. (See paragraph 2, Explanatory Notes)

** From Supply Section, Headquarters Platoon, Service Company

*** For Cal .50 MG AA HBM2 on M 32 truck mount

(H) From Headquarters Company

Service Company.—(*Continued*)

Regimental Headquarters Platoon
Supply Section

Truck 2½-ton Cargo	Mr Sgt (Supply) Techn 4th (Clerk, stock) Pvt (Clerk, Hq) Pvt (Clerk, record) Pvt (Clerk, record) Pvt (Messenger)* Techn 5th (Chauffeur)*
1 ——	Desk, field, with S-4 office records, forms, etc.
1 ——	Chest, commissary, complete
1080 rds	Cal .30 carbine Am
360 ——	Grenades AT M9
396 rds	Cal .30 Blank, special, M3
150 ——	Grenades, fragmentation
1 set	T/BA truck equipment

(Approx. weight of load 3,600 lbs.)

* Weight not included in load. (See paragraph 2, Explanatory Notes)

Transportation Platoon
Platoon Headquarters

Truck 2½-ton Cargo	1st Lt (Plat Comdr) Mr Sgt (Motor) Sgt (Truck-master) (T) Sgt (Ammunition) (T)* Techn 5th (Chauffeur)*
200 rds	BAR Am
20	Grenades AT M9
600 rds	37-mm AT Am
3 ——	Chaplains' outfits
26 ——	Reels DR-8 (13 mi W-130)
1 set	T/BA truck equipment

General supplies

Truck 2½-ton Cargo	Sgt (Supply)* (S) Techn 5th (Chauffeur)*
1 set	Intrenching equipment, infantry (CE Sup Cat)
200 rds	BAR Am
1 set	T/BA truck equipment

(Approx. weight of load 3,100 lbs.)

* Weight not included in load. (See paragraph 2, Explanatory Notes)

(S) From Supply Section, Headquarters Platoon

(T) May ride on truck belonging to Ki & Bag train on Am train when these trains are under regimental control

Service Company.—(*Continued*)

Battalion Trains

1st Battalion

Truck ¼-ton	1st Lt (S-4) Stf Sgt (Supply) Cpl (Truck-master) (T) Pvt (Chauffeur)*
200 rds	BAR Am for AA defense
10 ——	Grenades AT M9
1 set	T/BA truck equipment

(Approx. weight of load 700 lbs.)

Ammunition Train

Truck 2½-ton Cargo	Pvt (Chauffeur)*	Truck 2½-ton Cargo	Pvt (Chauffeur)*
22,464 rds	Cal .30 Am M1	11,232 rds	Cal .30 Am M1
7,920 rds	Cal .30 Am BAR (60 rd bandoleers)	3,960 rds	Cal .30 AM BAR (60 rd bandoleers)
12,000 rds	Cal .30 Am LMG**	6,000 rds	Cal .30 Am LMG**
324 rds	60-mm Mortar Am**	162 rds	60-mm Mortar Am**
2,800 rds	Cal .30 Carbine Am	200 rds	37-mm AT Am
140 rds	Cal .45 Pistol Am	54 rds	81-mm Mortar Am
370 ——	Grenades AT M9	8,800 rds	Cal .30 Carbine Am
396 rds	Cal .30 Blanks, special, M3	280 rds	Cal .45 Pistol Am
300 ——	Grenades, fragmentation	620 ——	Grenades AT M9
1 set	T/BA truck equipment	682 rds	Cal .30 Blanks, special, M3
		450 ——	Grenades, fragmentation
		300 rds	Cal .50 Am for AA defense***
		1 set	T/BA truck equipment

(Approx. weight of load 6,400 lbs.)
(Chauffeur armed with M 1903 rifle)

(Approx. weight of load 7,000 lbs.)

* Weight not included in load. (See paragraph 2, Explanatory Notes)

** See "**" Table 23*a* and "***" Antitank Platoon, Table 23*c*.

*** For cal .50 MG AA HBM 2 on M 32 Truck mount

(T) May ride on Bn Ki and Bag train or Am train, as directed

Notes: 1. The 2d and 3d Battalion Ammunition trains are identical.

2. One ammunition train truck carries ammunition for two (2) rifle companies; the second carries ammunition for one (1) rifle company, the heavy weapons and battalion headquarters companies.

Kitchen and Baggage Train
Battalion Headquarters Company

	Stf Sgt (Mess)	Trailer	Outfits, officers' mess
Truck	Techn 4th (Cook)	1-ton	Officers' bedding rolls
2½-ton	Techn 4th (Cook)		Rations
Cargo	Techn 5th (Cook)		Gas defense equipment
	Techn 5th (Armr Artif)		Company records
	Pvt (Cook's helper)		Remaining T/BA company equipment, including cleaning and preserving materials, etc.
	Pvt (Orderly)*		
	Pvt (Chauffeur)*		
1 set	T/BA company equipment, including field ranges, food containers, water cans, tentage, lanterns, tools, etc.	(Approx. weight of load 1,200 lbs.)	
10	Grenades AT M9		
1 set	T/BA truck equipment		

(Approx. weight of load 4,200 lbs.)

Company A

Truck	Stf Sgt (Mess)	Trailer	Officers' bedding rolls
2½-ton	Techn 4th (Cook)	1-ton	Rations
Cargo	Techn 4th (Cook)		Gas defense equipment
	Techn 5th (Cook)		Company records
	Techn 5th (Cook)		Remaining T/BA company equipment, including cleaning and preserving materials, etc.
	Techn 5th (Armr Artif)		
	Pvt (Orderly)*		
	Pvt (Chauffeur)*		
1 set	T/BA company equipment, including field ranges, food containers, water cans, tentage, lanterns, tools, etc.	(Approx. weight of load 1,200 lbs.)	
200 rds	BAR Am		
1 set	T/BA truck equipment		

(Approx. weight of load 4,200 lbs.)

Company B

(Same as Company A)

Company C

(Same as Company A, except delete "200 rds BAR Am" and substitute "10—Grenades AT M9")

Company D

(Same as Company A, except delete "200 rds BAR Am" and substitute "300 rds Cal .50 Am for MG AA HBM 2 on M32 truck mount")

*Weight not included in load. (See paragraph 2, Explanatory Notes)

Note: The 2d and 3d Battalion Kitchen and Baggage Trains are identical.

Medical Section Train

(The loading of the Battalion Medical Section train is presented as a part of the Regimental Medical Detachment Loading Table 23 *h*.)

Antitank Company Section (Transportation Platoon)

Truck	Stf Sgt (Mess)	Trailer	Officers' bedding rolls
2½-ton	Techn 4th (Cook)	1-ton	Rations
Cargo	Techn 4th (Cook)		Gas defense equipment
	Techn 5th (Cook)		Company records
	Techn 5th (Armr Artif)		Remaining T/BA company equipment, including cleaning and preserving materials, etc.
	Pvt (Cook's helper)		
	Pvt (Cook's helper)		
	Pvt (Orderly)*		
	Techn 5th (Chauffeur)*		
1 set	T/BA company equipment, including field ranges, food containers, water cans, tentage, lanterns, tools, etc.	(Approx. weight of load 1,200 lbs.)	
200 rds	BAR Am		
1 set	T/BA truck equipment		

(Approx. weight of load 4,400 lbs.)

Cannon Company Section (Transportation Platoon)

Truck	Stf Sgt (Mess)	Trailer	Officers' bedding rolls
2½-ton	Techn 4th (Cook)	1-ton	Rations
Cargo	Techn 5th (Cook)		Gas defense equipment
	Techn 5th (Armr Artif)		Company records
	Pvt (Cook's helper)		Remaining T/BA company equipment, including cleaning and preserving materials, etc.
	Pvt (Cook's helper)		
	Pvt (Orderly)*		
	Techn 5th (Chauffeur)*		
1 set	T/BA company equipment, including field ranges, food containers, water cans, tentage, lanterns, tools, etc.	(Approx. weight of load 1,200 lbs.)	
200 rds	BAR Am		
1 set	T/BA truck equipment		

(Approx. weight of load 4,200 lbs.)

Service Company.—(*Continued*)

Headquarters Company Section (Transportation Platoon)

Truck	Stf Sgt (Mess)	Trailer	Outfits, Officers' mess
2½-ton	Techn 4th (Cook)	1-ton	Company officers'
Cargo	Techn 4th (Cook)		bedding rolls
	Techn 5th (Cook)		Rations
	Techn 5th (Armr		Gas defense equip-
	Artif)		ment
	Pvt (Cook's helper)		Company records
	Pvt (Orderly)*		Remaining T/BA
	Techn 5th		company equipment,
	(Chauffeur)*		including cleaning and
			preserving materials,
		(Approx. weight of load 1,200 lbs.)	

1 set	T/BA company equipment, including field ranges, food containers, water cans, tentage, lanterns, tools, etc.
200 rds	BAR Am
1 set	T/BA truck equipment

(Approx. weight of load 4,200 lbs.)

*Weight not included in load. (See paragraph 2, Explanatory Notes.)

Service Company.—(*Continued*)

Maintenance Section (Transportation Platoon)

Truck	1st Lt (Maint O)
¼-ton	Techn 4th (Mechanic, motor)
	Techn 5th (Mechanic, motor)
	Pvt (Chauffeur)*
2 sets	Tools, Motor mechanics'
200 rds	BAR Am for AA defense
1 set	T/BA truck equipment

(Approx. weight of load 800 lbs.)

Truck	Techn 4th (Mechanic, motor)	Truck	W O (Asst Maint O)
2½-ton	Techn 4th (Mechanic, motor)	2½-ton	Techn 4th (Mechanic, motor)
Cargo	Techn 4th (Mechanic, motor)	Cargo	Techn 4th (Mechanic, motor)
Long	Techn 4th (Mechanic, motor)		Techn 4th (Mechanic, motor)
W P	Techn 4th (Welder)		Techn 5th (Mechanic, motor)
with	Techn 5th (Clerk, record)		Techn 5th (Mechanic, motor)
S P	Techn 5th (Mechanic, motor)		Techn 5th (Mechanic, motor)
bins	Techn 5th (Mechanic, motor)*		Techn 5th (Mechanic, motor)*
	Techn 5th (Chauffeur)*		Techn 5th (Chauffeur)*
1 set	Tools, Unit Equipment No 1	1 set	Tools, Unit Equipment No 2
5 sets	Tools, Motor mechanics'	1 set	Tools, Unit Equipment No 5
1 set	Tools, Unit Equipment, welders'	1 set	Tools, Unit Equipment No 7
2 sets	Tools, Battery experts'	6 sets	Tools, Motor mechanics'
300 rds	Cal .50 Am for AA defense**	2 sets	Tools, Battery experts'
1 set	T/BA spare parts	200 rds	BAR Am for AA defense
1 set	T/BA truck equipment	10 ——	Grenades AT M9
		1 set	T/BA truck equipment
(Approx. weight of load 5,000 lbs.)		(Approx. weight of load 4,000 lbs.)	

*Weight not included in load. (See paragraph 2, Explanatory Notes.)
**For cal .50 MG HBM2 on M32 truck mount

LOADING TABLE 23f

Antitank Company, Infantry Regiment

Company Headquarters

Truck	Capt (Co Comdr)
¼-ton	1st Sgt
	Pvt (Bugler)
	Techn 5th (Chauffeur)*
1 set	Radio SCR 536
1 set	T/BA truck equipment

(Approx. weight of load 700 lbs.)

Truck	2d Lt (Rcn O)
¼-ton	Pvt (Messenger)
Amphi-	Pvt (Basic)**
bian	Pvt (Chauffeur)*
1 set	Radio SCR 536
1 set	T/BA truck equipment

(Approx. weight of load 470 lbs.)

Truck	1st Lt (2d in Comd)
¾-ton	Sgt (Supply)
Weapon	Pvt (Messenger)****
Carrier	Pvt (Basic)**
	Pvt (Chauffeur)*
3,600 rds	Cal .30 carbine Am
150 ——	Grenades, fragmentation
180 ——	Grenades AT M9
198 rds	Cal .30 blanks, special, M3
1 set	T/BA truck equipment

(Approx. weight of load 1,600 lbs.)

Truck	Stf Sgt (Transport)
¾-ton	Techn 4th (Mechanic, motor)
Weapon	Techn 5th (Mechanic, motor)
Carrier	Pvt (Basic)**
	Pvt (Chauffeur)*
1 set	Tools, Unit equipment No 1
2 sets	Tools, Motor mechanics'
1 set	T/BA truck equipment

(Approx. weight of load 1,200 lbs.)

Truck	Sgt (Rcn and Sig)
¾-ton	Pvt (Messenger)
Command	Pvt (Messenger)****
	Pvt (Basic)**
	Pvt (Chauffeur)*
1 ——	Projector, signal, M4 with signals
4 ——	Reel Equipment CE-11
1 set	T/BA truck equipment

(Approx. weight of load 900 lbs.)

Truck	Techn 4th (Operator, radio)
¾-ton	Techn 5th (Operator, radio)*
Command	Pvt (Messenger)****
***	Pvt (Chauffeur)*
1 set	Radio SCR 245
20 ——	Grenades AT M9
1 set	T/BA truck equipment

(Approx. weight of load 1,000 lbs.)

*Weight not included in load. (See paragraph 2, Explanatory Notes.)
**Weight not included in load. (See paragraph 3, Explanatory Notes.)
***It is assumed this truck is equipped with oversize 12-volt battery and supercharging generator to accommodate the SCR 245 radio set.
****One from each antitank platoon.

Antitank Platoon
(Three in company)

Platoon Headquarters

Truck	2d Lt (Plat Ldr)
¾-ton	Stf Sgt (Platoon)
Command	Cpl (Agent)
	Pvt (Messenger)*
	Pvt (Chauffeur)*
1 set	Radio SCR 536
2 ——	Reel equipment, CE-11
1 set	T/BA truck equipment

(Approx. weight of load 750 lbs.)

1st Section

	1st Squad	**2d Squad**
Truck	Cpl (Squad Leader)	Truck
¾-ton	Pvt (Gunner)	¾-ton
Weapon	Pvt (Gunner, Asst)	Weapon (Identical with 1st
Carrier	Pvt (Am Bearer)*	Carrier Squad, except for
Prime	Pvt (Basic)**	*Prime* BAR and Am)
Mover	Pvt (Chauffeur)*	*Mover*
100 rds	37-mm Am	
200 rds	BAR Am for AA defense***	
1 set	Spare parts and equipment (SNL A-44)	
1 ——	Shovel, DH	
1 set	T/BA truck equipment	

(Approx. weight of load 1,600 lbs.)
(*Tows 37-mm AT Gun*)

Truck	Sgt (Section Leader)
¼-ton	Cpl (Transport)****
and	Pvt (Chauffeur)*
¼-ton	
Trailer	
200 rds	37-mm Am
1 ——	Saw, crosscut, 6'
10 ——	Grenades AT M9
1 set	T/BA truck equipment

(Approx. weight of load 1,500 lbs.)

*Weight not included in load. (See paragraph 2, Explanatory Notes.)

**Weight included in load. (Teletype GNRQ) T-WA 46—No 265-8 1816 20 July indicates change "Basic" to "Private" in T/O.

***Mounted on M24 pedestal mount.

****From platoon headquarters.

Notes: 1. The 1st and 2d sections are identical, substituting "Pvt (Co Aid)" from Regimental Medical Detachment in the 2d section for "Cpl (Transport)" in the 1st section.

2. The three antitank platoons are identical.

Antitank Company.—(*Continued*)

Antitank Mine Platoon

Truck ¼-ton	2d Lt (Plat Ldr) Stf Sgt (Platoon) Techn 4th (Surveyor) Pvt (Chauffeur)*
2 ——	Reel equipment CE-11
1 ——	Tape, measuring
1 ——	Circle, aiming
1 ——	Protractor
1 set	T/BA truck equipment

(Approx. weight of load 725 lbs.)

Truck 2½ ton Cargo and Trailer 1-ton	Cpl (Squad Ldr) Techn 5th (Drftm Top)** Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer)* Pvt (Chauffeur)*
450 ——	AT Mines
200 ——	BAR Am for AA defense
6 ——	Shovels, DH
2 ——	Axes, SB
1 ——	Pick, handled, RR
1 set	Sketching Equipment
1 set	T/BA truck equipment

(Approx. weight of load 8,500 lbs.)

Truck 2½-ton Cargo and Trailer 1-ton	Cpl (Squad Ldr) Cpl (Squad Ldr) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer) Pvt (Pioneer)* Pvt (Chauffeur)*
450 ——	AT Mines
10 ——	Grenades AT M9
6 ——	Shovels, DH
1 ——	Axe, SB
2 ——	Picks, handled, RR
1 set	T/BA truck equipment

(Approx. weight of load 8,300 lbs.)

* Weight not included in load. (See paragraph 2, Explanatory Notes.)

** From platoon headquarters

LOADING TABLE 23g

9-15-42

Cannon Company, Infantry Regiment

Company Headquarters Platoon

Truck	Capt (Co Comdr)
¼-ton	Pvt (Bugler)
	Pvt (Messenger)
	Pvt (Chauffeur)*
1 ——	Radio SCR-536
10 ——	Grenades AT M9
1 set	T/BA truck equipment
(Approx. weight of load 700 lbs.)	

Truck	Sgt (Communication)
¼-ton	Techn 4th (Mechanic,
and	Art)
¼-ton	Pvt (Co Aid) (M)
Trailer	Pvt (Basic)**
	Pvt (Chauffeur)*
1 ——	Projector, ground, signal, M4, with signals
200 rds	BAR Am for AA defense

(Space for boxes of cleaning and preserving materials, spare parts, etc., and a roll of general tools, all of which will be used by the artillery mechanic. These items are not yet provided by T/BA)

Truck	1st Lt (Ex O)
¼-ton	1st Sgt
and	Sgt (Supply)
¼-ton	Pvt (Chauffeur)*
Trailer	
1 ——	Radio SCR 536
6 ——	Telephones EE-8-A
1 ——	Switchboard BD-71
4 ——	Reels DR-4 (8 mi W-130)
10 ——	Grenades AT M9
1 set	T/BA truck equipment
(Approx. weight of load 1,000 lbs.)	

Truck	Stf Sgt (Reconnaissance)
¼-ton	Pvt (Messenger)
	Pvt (Co Aid) (M)
	Pvt (Chauffeur)*
1 ——	Telescope, M4
1 ——	Board, drawing
1 ——	Aiming circle
1 ——	Range finder
1 set	T/BA truck equipment
(Approx. weight of load 800 lbs.)	

Truck	Stf Sgt (Transport)
¾-ton	Techn 4th (Mechanic,
Weapon	motor)
Carrier	Techn 5th (Mechanic, motor)*
	Pvt (Basic)**
	Pvt (Basic)**
	Pvt (Chauffeur)
1 set	Tools, Unit equipment, No 1
2 sets	Tools, Motor Mechanics'
200 rds	BAR Am for AA defense***
1 set	T/BA truck equipment
(Approx. weight of load 1,050 lbs.)	

* Weight not included in load. (See paragraph 2, Explanatory Notes.)

** Weight not included in load. (See paragraph 3, Explanatory Notes.)

*** For M24 pedestal mount

(M) From Regimental Medical Detachment

Cannon Company.—(*Continued*)

75-mm Howitzer Platoon

Truck ¼-ton	2d Lt (Plat Ldr)
	Pvt (Operator, instrument)
	Pvt (Operator, radio)
	Pvt (Chauffeur)*
1 set	Radio SCR-536
1 ——	Telescope M4
1 ——	Pistol, M2, with signals
1 ——	Board, drawing
1 set	T/BA truck equipment

(Approx. weight of load 725 lbs.)

Truck ¼-ton and ¼-ton Trailer	Stf Sgt (Platoon)
	Techn 4th (Operator, radio)
	Pvt (Messenger)
	Pvt (Chauffeur)*
4 ——	Reel equipment CE-11
1 ——	Aiming circle
1 ——	Range finder
200 rds	BAR Am for AA defense
1 set	T/BA truck equipment

(Approx. weight of load 850 lbs.)

Truck 2½-ton Cargo and 1-ton Trailer	Cpl (Agent)
	Pvt (Cannoneer)**
	Pvt (Cannoneer)**
	Pvt (Cannoneer)**
	Pvt (Ammunition bearer)**
	Pvt (Ammunition bearer)**
	Pvt (Ammunition bearer)**
	Pvt (Ammunition bearer)**
	Pvt (Ammunition bearer)**
	Pvt (Ammunition bearer)***
	Pvt (Basic)**
	Pvt (Basic)**
	Pvt (Basic)**
	Pvt (Chauffeur)*
155 rds	75-mm How Am HE
41 rds	75-mm How Am AP
11 rds	75-mm How Am Smoke
110 ——	Grenades, AT M9
50 ——	Grenades, fragmentation
1020 rds	Cal .30 Carbine Am
110 rds	Cal .30 Blanks, special, M3
1 set	T/BA truck equipment

(Approx. weight of load 7,200 lbs.)

Cannon Company.—*(Continued)*

75-mm Howitzer Platoon.—*(Continued)*

1st Section		2d Section	
How 75-mm SPM M-8	Sgt (Sec Ldr) Cpl (Gunner) Pvt (Cannoneer) Techn 5th (Driver, SPM)	How 75-mm SPM M-8	(Identical with the 1st Section)
30 rds	75-mm How Am HE		
8 rds	75-mm How Am AP		
2 rds	75-mm How Am Smoke		
300 rds	Cal .50 MG Am for AA defense		
200 rds	BAR Am for AA defense		
10 ——	Grenades, AT M9		
1 set	T/BA tools and equipment for SPM (SNL-G 103)		

3d Section

How 75-mm SPM M-8	(Identical with 1st Section)

* Weight not included in load. (See paragraph 2, Explanatory Notes.)
** From Howitzer Sections.

Note: The second platoon is identical with the first platoon, except substitute "Techn 5th (Operator, radio)" for "Techn 4th (Operator, radio)."

105-mm Howitzer Platoon

Truck ¼-ton	2d Lt (Plat Ldr) Techn 4th (Operator, radio) Pvt (Operator, instrument) Pvt (Chauffeur)*	Truck ¼-ton and ¼-ton Trailer	Stf Sgt (Platoon) Techn 5th (Operator, radio) Pvt (Messenger) Pvt (Chauffeur)*
1 set	Radio, SCR-536	2 ——	Reel equipment CE-11
1 ——	Board, drawing	1 ——	Aiming circle
1 ——	Telescope M4	1 ——	Range finder
1 ——	Pistol, M2, with signals	200 rds	BAR Am for AA defense
2 ——	Reel equipment CE-11	1 set	T/BA truck equipment
1 set	T/BA truck equipment	(Approx. weight of load 850 lbs.)	
(Approx. weight of load 725 lbs.)			

Truck 2½-ton and 1-ton Trailer	Cpl (Agent) Pvt (Co Aid) (M)* Pvt (Basic)** *** Pvt (Basic)** *** Pvt (Chauffeur)*
114 rds	105-mm How Am HE
12 rds	105-mm How Am AP
50 ——	Grenades, fragmentation
70 ——	Grenades, AT M9
66 rds	Cal .30 Blanks, special, M3
640 rds	Cal .30 Carbine Am
1 set	T/BA truck equipment
(Approx. weight of load 6,900 lbs.)	

First Section

How 105-mm SPM M-7	Sgt (Sec Ldr) Cpl (Gunner) Pvt (Cannoneer) Pvt (Cannoneer) Pvt (Am bearer) Pvt (Am bearer) Techn 5th (Driver, SPM)
51 rds	105-mm How Am HE
6 rds	105-mm How Am AP
300 rds	Cal .50 MG Am for AA defense
200 rds	Cal .30 BAR Am for AA defense
10 ——	Grenades, AT M9
1 set	Tools and equipment, SPM (SNL-G104)

Second Section

How 105-mm SPM M-7	(Identical with the First Section)

* Weight not included in load. (See paragraph 2, Explanatory Notes.)

** Weight not included in load. (See paragraph 3, Explanatory Notes.)

*** From Howitzer Sections

LOADING TABLE 23h

9-15-42

Medical Detachment, Infantry Regiment

Headquarters Section

Truck ¼-ton and Trailer ¼-ton	Capt (Asst Regtl Surg) Capt (Regtl Dental Surg) Tech Sgt (1st Sgt) Pvt (Chauffeur)*	Truck 2½-ton Cargo	1st Lt (Asst Dental Surg) Sgt (Supply) Techn 4th (Surgical) Techn 5th (Surgical) Techn 5th (Surgical) Techn 5th (Clerk, record)
1 ——	Chest MD No. 4		Techn 5th (Dental asst)
4 ——	Officers' bedding rolls		Techn 5th (Dental asst)
12 ——	Individual rolls		Pvt (Medical)
1 set	T/BA truck equipment		Pvt (Sanitary)*
(Approx. weight of load, 1,100 lbs.)			Pvt (Chauffeur)*
		1 ——	Chest MD No 1
		1 ——	Chest MD No 2
		2 ——	Chest MD No 60
		6 ——	Litters
		1 set	Splints
		1 set	Blankets
		1 set	Lanterns
		1 set	Misc equipment, including all tentage in the detachment, tools, etc.
		1 set	T/BA truck equipment
		(Approx. weight of load 3,400 lbs.)	

1st Battalion Section

Truck ¼-ton and ¼-ton Trailer	Pvt (Litter bearer) Pvt (Litter bearer) Pvt (Litter bearer) Pvt (Chauffeur)*	Truck ¼-ton and ¼-ton Trailer	Pvt (Litter bearer) Pvt (Litter bearer) Pvt (Litter bearer) Pvt (Chauffeur)*
1 ——	Chest MD No 1	1 ——	Chest MD No 1
1 ——	Chest MD No 2	1 set	Blankets
1 set	Blankets	4 ——	Litters
8 ——	Litters	1 set	Splints
1 set	Splints	1 set	Misc equipment, including officers' bedding rolls, individual rolls, lanterns, etc.
1 set	Misc equipment, including tools, lanterns, etc.	(Approx. weight of load 1,300 lbs.)	
1 set	T/BA truck equipment		
(Approx. weight of load 1,400 lbs.)			

* Weight not included in load. (See paragraph 2, Explanatory Notes.)

Note: The 2d and 3d battalion sections are identical.

TABLE 24a

Motor Maintenance–Vehicles in Infantry Regiment

	Hq & Hq Co	Serv Co	AT Co	Cannon Co	Bn Hq & Hq Co (3)	Hv W Co (3)	Rifle Co (9)	Attach Med	Total Regt
Trailer, 1-ton		19	2	3					24
Trailer, ¼-ton	3		6	5	5	14	2	7	96
Truck, ¼-ton	11	6	8	10	19	19	2	7	174
Truck, ¼-ton, Amphibian	8		1		1				12
Truck, ¾-ton, Comd	2a		5a						7a
Truck, ¾-ton, W/C	1a	2a	14e	1a	1a	1a			24e
Truck, 2½-ton, Cargo	1d	30b	2d	3a				1d	37e
SPM, 75-mm How				6					6
SPM, 105-mm How				2					2
Total	26	57	38	30	78	102	36	15	382

Notes:

a - All with winch attachment
b - 21 with winch attachment
c - 24 with winch attachment
d - Without winch attachment
e - 1 without winch attachment

TABLE 24b

Motor Maintenance–Personnel, Infantry Regiment

	Rank	Serv Co	Regtl Hq & Hq Co	AT Co	Cannon Co	Bn Hq & Hq Co (3)	Hv W Co (3	Rifle Co (9)	Attach Med	Total
Transport Officer	1st Lt	1				1				4
Maintenance Officer	1st Lt	1								1
Asst Maint Officer	W O	1								1
Motor Sergeant	Mr Sgt	1								1
Transportation Sergeant	Stf Sgt			1	1					2
Transportation Sergeant	Sgt		1				1			4
Motor Sergeant	Sgt					1				3
Truckmaster	Sgt	1								1
Truckmaster	Cpl	3								3
Transportation Corporal	Cpl			3		1	3	1		24
Chauffeur	Techn 5th	8		1	1					10
Chauffeur	Pvt	30	23	29	13	21	20	2	8	244
Clerk, Record	Techn 5th	1								1
Drivers (SPM)	Techn 5th				8					8
Mechanic	Techn 4th	9	1	1	1	1	1			18
Mechanic	Techn 5th	7		1	1	1				12
Welder	Techn 4th	1								1
Total		64	25	36	25	78	75	27	8	338

TABLE 24c

Motor Maintenance–Tools and Equipment, Infantry Regiment

M/V Equipment Carried	Service Co		Regtl Hq Co	Cn Co	AT Co	Bn Hq Co (3)	Hv Wpn Co (3)	R Co (9)	Total
	Organic	Maint Sec							
Motor Vehicle Mechanics' Sets	3	13	1	2	2	2	1		30
Unit Equipment Set No 1 (Tools)	1	1	1	1	1	1	1		11
Unit Equipment Set No 2 (Tools)		1							1
Battery Experts' Set		4							4
Welders' Tool Set		1							1
Unit Equipment Set No 5 (Welding)		1							1
Unit Equipment Set No 7 (Wrecking Set)		1							1

TABLE 24d

Motor Maintenance–Echelons of Maintenance

Echelon	1st	2nd	3rd	4th	5th
Function of:	Using Organization	Using Organization	Medium maintenance facilities (Division, etc.)	Tactical Commander, Army Ground Forces	CG or Commander of the Services of Supply (non-tactical)
Responsibility of:	Drivers	Maintenance Personnel	Maintenance Personnel, Medium Maintenance Units (Mobile)	Maintenance Personnel, Heavy Maintenance Units (Semimobile)	Maintenance Personnel, Base Shop Maintenance (Normally-fixed shop)
Duties:	1. Daily Inspections 2. Servicing 3. Lubrication 4. Tightening 5. Cleaning 6. Care of tools & equipment 7. Emergency repairs 8. Report indications of failure	1. Inspections 2. Scheduled Maintenance service 3. Minor repairs 4. Limited unit replacement 5. Lubrication 6. Supply 7. Battlefield recovery 8. Evacuation	1. Inspections 2. Supply 3. Overhaul 4. Unit replacement 5. Battlefield recovery 6. Evacuation	1. Inspections 2. Vehicle rebuild 3. Overhaul 4. Battlefield recovery 5. Evacuation 6. Reclamation 7. Salvage 8. Supply	1. Rebuild of major unit assemblies 2. Emergency limited vehicle rebuild 3. Supply 4. Motor base parts depots

TABLE 24e

Motor Maintenance–Estimated Daily Losses of Motor Vehicles, Per 100, in Campaign

		REPAIR	
	Destroyed	a 2nd Echelon	b 3rd Echelon or Higher
Covering and Security Force Action	.5	.5	.7
Attack			
Meeting engagement	1.0	1.0	.9
of a position—First day	1.6	1.5	1.1
Succeeding days	1.3	.7	.8
of a zone— First day	2.7	2.7	1.5
Suceeding days	1.4	1.3	1.0
Defense			
Meeting engagement	.6	.6	.7
of a position—First day	.9	7.5	.7
Succeeding days	.8	.6	.7
of a zone— First day	1.6	1.2	1.0
Succeeding days	.8	.6	.7
Inactive Situation	.3	.2	.6
Pursuit	.5	.5	.7
Retirement and Delaying Action	.3	.3	.6
Under all other Conditions of Campaign	0.0c	.2	.1

a. Repairs by Maintenance Section
b. Repairs by 3rd or higher echelon
c. Negligible

Note: Figures do not include normal maintenance functions. Figures indicate maintenance as a result of military operations.

TABLE 25

Casualties in Combat

Estimated daily losses in combat for the Infantry Regiment, per 1000 men.

Type of Action	Killed	Wounded				Total Casualties
		Total	Litter	Walking	To clearing station	
Security Force Action	6	38	19	19	30	44
Attack						
Meeting engagement	16	98	49	49	80	114
of a position 1st day	25	154	77	77	125	179
succeeding days	12	72	36	36	62	84
of a zone 1st day	42	256	128	128	210	298
succeeding days	21	128	64	64	105	149
Defense						
Meeting engagement	10	62	31	31	50	72
of a position 1st day	15	94	47	47	60	109
succeeding days	7	44	22	22	30	51
of a zone 1st day	25	154	77	77	100	179
succeeding days	12	38	19	19	50	50
Pursuit	8	50	25	25	42	58
Retirement and Delaying Action	4	10	5	5	20	14

NOTES

1. These casualty rates are estimates based on available casualty rate tables for a maximum casualty day.
2. This table does not take into consideration the non-effective rate caused by sickness and non-battle injuries, which will average about 0.6 percent per day and finally accrue to a more or less constant non-effective rate of 4.5 percent.

TABLE 26

Maps and Aerial Photographs

1. The following chart, extracted from FM 30-20, shows the types of maps and photomaps normally available and the agency responsible for their reproduction:

Kind of map	Scale	Reproduced in quantity by—	Purpose	Probable time or conditions when available[2]
Battle map, uncontoured.	1:20,000.	GHQ and army topographic battalions.	General field uses. Horizontal control for unobserved fires by artillery.	For limited areas: 7 days or more after photography.
Battle map, contoured.	1:20,000.	GHQ and army topographic battalions.	Used by all arms. Horizontal and vertical control for unobserved fires by artillery. Suitable for tactical and technical uses.	For limited areas: 2 weeks or more after photography.
Composite photograph.	As taken, 1:20,000 to 1:60,000.	GHQ army, or corps topographic companies.	Photogrammetry by topographic engineers. Copies of early availability for general field uses. Approximate horizontal control for limited unobserved fires by artillery.	24 to 48 hours after photography.
Mosaic, controlled.	As taken, enlarged or reduced.	Corps topographic companies.	Infantry as firing map. Horizontal control for unobserved fires by artillery.	24 to 72 hours after photography, depending on amount of control used.
Mosaic, uncontrolled.	As taken, enlarged or reduced.	Army topographic battalions. Corps topographic companies.	General field uses.	24 to 28 hours after photography.
Strip mosaic.	As taken, enlarged or reduced.	Corps topographic companies.	Infantry as firing map. Approximate horizontal control for limited unobserved fire by artillery. General field uses.	24 hours after photography.
Provisional map.	1:20,000 to 1:60,000.	Army topographic battalions. Corps topographic companies.	Map of early availibility for field uses. Approximate horizontal control for limited unobserved fires by artillery.	Tracing of planimetric details 24 to 48 hours after photographs. With form lines added 48 to 72 hours. Roughly contoured in color 3 to 5 days.
Strategic map.	1:500,000.	GHQ and army topographic battalions.	Strategy and logistics.	Limited quantities on M-day. Reproductions: 24 hours.
Topographic map, contoured.	1:62,500.	Geological survey and GHQ and army topographic battalions.	General field uses. Tactical and logistical studies by units from corps to regiment.	Limited quantities on M-day. Reproductions: 24 to 48 hours (very limited areas of U. S.).
Topographic map, contoured.	1:125,000.	Geological survey and GHQ and army topographic battalions.	Substitute for 1:62,500 topographic map.	Limited quantities on M-day. Reproductions: 24 to 48 hours (limited areas of U. S.).
Topographic map, scale smaller than 1:125,000.	1:125,000 or smaller.	GHQ and army topographic battalions.	Strategy and logistics.	Limited quantities on M-day. Reproductions: 24 hours or more.
Vertical aerial photographs.	1:5,000 to 1:20,000.	Army topographic battalions. Corps topographic companies.	Target location. Detailed reconnaissance. Intelligence. Minor tactics. Stereo-pairs and triplets.	Limited numbers: 3 to 5 hours after photography. Quantities: 48 hours after photography.
Coast charts and harbor charts.	Miscellaneous.	Coast and Geodetic Survey and GHQ and army topographic battalions.	Coast artillery in harbor defense. All arms in coastal frontier defense.	Limited quantities on M-day. Reproductions: 24 to 48 hours.
Road maps.	Miscellaneous.	American Automobile Association, oil companies, etc.[1]	Logistics. Concentration mechanized units. Maintenance and operation of communication.	Limited quantities on M-day. Reproductions: 24 to 48 hours.

[1] The data as to existing maps contained in this table concern primarily the continental United States. Appropriate modifications are necessary in order to conform to conditions in other theaters of operations.

[2] Time estimates are predicated upon adequately organized, equipped, and trained mapping (Air Corps, Engineer) and reproduction (engineer) troops. Under less favorable conditions more delay must be expected.

2. Maps for use in a theater of operations are classified according to scale.

a. Small scale maps.—From 1:1,000,000 to 1:7,000,000 intended for strategical studies of the commanders of larger units.

b. Intermediate scale maps.—From 1:200,000 to 1:500,000 intended for planning strategic operations, including the movement, concentration, and supply of troops.

c. Medium scale maps.—From 1:50,000 to 1:125,000 intended for strategical, administrative, and tactical studies by units ranging in size from the corps to the regiment.

d. Large scale maps.—Usually 1:20,000 intended for the technical and tactical battle needs of the Artillery and the Infantry.

3. Maps should always be referred to by definite scale, i.e., 1:62,500 rather than "medium scale" which covers a wide range.

4. To determine the scale of an aerial photo, select two points, A and B, on the photo that can be easily identified on the ground. Measure the distance in inches on the photo between the two points and measure the distance on the ground between the same two points by pacing or by using the odometer of a car. Convert the ground distance to inches. Substitute these distances in inches in the following formula:

$$RF = \frac{\text{photo distance AB}}{\text{ground distance AB}}$$

If a map of the same area is available, the RF may be determined as follows:

$$RF = \frac{\text{photo distance AB}}{\text{map distance AB inches x denominator of map RF}}$$

5. The direction of magnetic north is recorded in the margin of a map but is frequently omitted from an aerial photo. To place the magnetic north arrow on a photo, select two points on the photo and draw a straight line connecting them. Determine the magnetic azimuth of this line by using a compass, if the points are visible from each other on the ground, or by using a protractor, if a map of the area is available. The magnetic north arrow may then be drawn on the photo by using the protractor.

FOREIGN MAPS

6. The British Grid System is usually found on European maps. In this system, the area is divided into large squares 500 km. on each side. Each of these squares is designated by a letter of the alphabet. The large squares are divided into twenty-five smaller squares 100 km. on each side and these smaller squares are also designated by letters of the alphabet from A to Z excluding "I." The origin of coordinates is the southwest corner of the smaller lettered square. Numbered coordinates are measured to the right (East) and up (North) from this origin. The coordinates of a point in large square "V", small square "T", 4.5 grid lines east and 5.6 grid lines north of the southwest corner of the square "T" would be written (v) T4556. On smaller scale maps greater accuracy may be obtained by further interpolation between grid lines. The coordinates of the above point may be written (v) T453562. The first half of the digits, 453, are measured to the right (East) and the latter half, 562, are measured up from the southwest corner of square "T."

7. The origin of longitude is generally Greenwich but occasionally Paris, Ferro Island, or some other city is used. In some cases longitude and latitude are expressed in grads rather than degrees.

8. Distance is measured in meters and kilometers. If necessary to convert to yards or miles the following conversion factors may be used:

METRIC CONVERSION FACTORS.

Unit	Exact equivalent	Convenient approximation	Conversion formulae
1 millimeter	.0393 in.	1/25 or .04 in.	mm x .04 = ins.
1 meter	1.0936 yds.	1.1 yds.	m x 1.1 = yds.
	3.281 ft.	3-1/3 or 3.3 ft.	m x 3.3 = ft.
1 kilometer (1000 meters)	1093.61 yds.	1100 yds.	km x 1100 = yds.
	.62137 mile	5/8 mile	km x 5/8 = miles
1 grad	.9 degree	.9 degree	grad x .9 = degrees
1 yard	.9144 meters	.9 meters	yds x .9 = meters
1 mile	1609.35 meters	1600 meters	mi. x 1600 = meters
	1.609 kilometers	1-3/5 or 1.6 kilometers	mi. x 8/5 = kilometers
1 degree	$\frac{10}{9}$ grad.	1.1 grad	Degrees x 1.1 = grads.

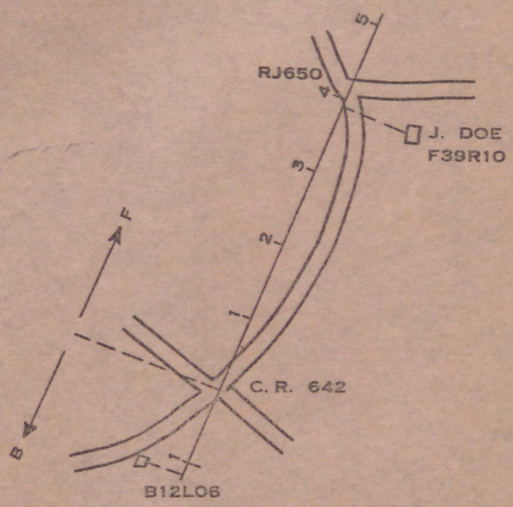
TRANSLATION OF ENGLISH GEOGRAPHICAL TERMS

English	*German*	*Norwegian*	*French*
City, town	Stadt	stad, by	ville
Village	Dorf	landsby	village
Fortress, fort	Festung, Fort	faestning	forteresse, fort
House	Haus	huus	maison
Bridge	Brücke	bro	pont
Coast, shore	Küste	kyst	côte
Island	Insel	o	ile
Plain, field	Feld	slette, mark	plaine, champ
Desert	Wüste	ork	desert
Heath	Steppe	steppe	lande, prairie
Fen, marsh, swamp	Sumpf	sump	marais
Forest, wood	Wald	skov	forêt
Plateau	Plateau	hoislette, fjeld	plateau
Mountains	Gebirge	bjergkjaede	montagne
Mount	Berg	bjerg	mont
North	Nord	nord	nord
South	Süd	syd	sud
East	Ost	ost	est
West	West	vest	ouest
Water	Wasser	vand	eau
Spring, well	Quelle, Brunnen	kilde	source, puits
River	Fluss, Strom	flod	fleuve, rivière
Lake	See	so	lac
Sea	Meer, See	hav	mer
Port, harbor	Hafen	havn	port
Great, big, large	gross	stor	grand
Little, small	klein	ille	petit
Long	lang	lang	long
High	hoch	hoi	haut
Upper	ober	ovre	haut, superieur
Lower	unter	nedre	bas, inferieur
Old	alt	gammel	vieux
New	neu	ny	neuf
Saint	Heilige	hellig	saint

9. There is an increasing use of the "Thrust Line" system of location. It may be used on ungridded maps or photographs. It is easy to understand and yet furnishes a secret means of transmitting information regarding the location of troops and installations. The Thrust Line may be changed periodically and thus further confuse the enemy.

10. In this system a Thrust Line is designated by naming two points on the map and drawing a straight line thru them. This line may be extended indefinitely in either direction. It is usually drawn in the direction of attack. To determine the thrust line coordinates of a point on the map, draw a line thru the point perpendicular to the Thrust Line. Measure the distance from the origin (first point named in designating the Thrust Line) to the intersection of these lines and from the intersection to the point in question. The letter F (Forward) or B (Back) precedes the numbers which indicate the distance measured along the Thrust Line and the letter R (Right) or L (Left) precedes the numbers that indicate the distance measured from the Thrust Line right or left to the point in question.

Example: Thrust Line: CR 642 - RJ 650



11. Distance may be measured in inches and tenths of inches provided all units have maps of the same scale. If distances are indicated as ground distances in yards or miles, the scale of the map does not affect the Thrust Line figures.

12. In the example above it will be noted that F39 means forward 3 and 9 tenths miles along the Thrust Line and R10 means 1 and 0 tenths miles to the right of the Thrust Line. Although the decimal point is not written it must be inferred and the last digit of each set of numbers represents tenths of a mile.

13. The house at B12L06 is found by measuring 1.2 miles back from CR 642 and Left (as you face the enemy) 0.6 miles.

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