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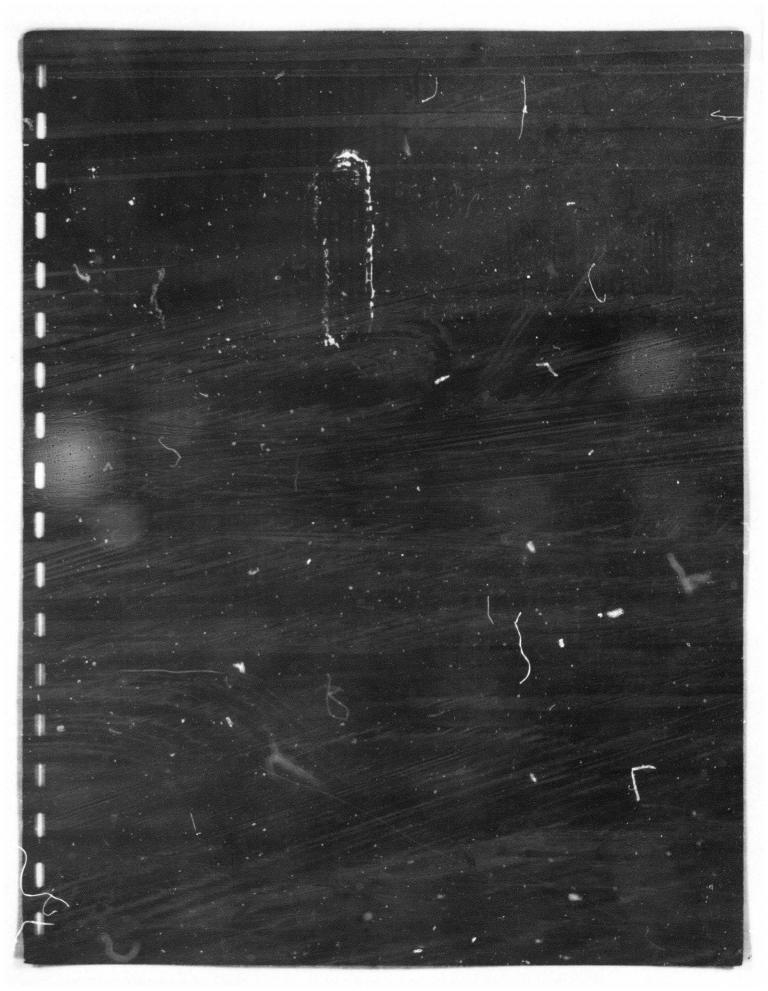
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(Form 1473

Headquarters

US ARMY COMBAT DEVELOPMENT EXPERIMENTATION CENTER

Fort Ord, California

OPTIMUM LOADING PLANS		
for the		
M113 ARMORED PERSONNEL CARRIER .		
9 Final rept. 1 May - 21	Jul	61.
11 Nov 261		
(12)148p.		

CHARLES S. D' ORSA
Brigadier General, United States Army
Commanding

APPROVED:

- FOR OFFICIAL USE ONLY (037 210) R

Summary

- 1. An experiment was conducted by USA CDEC at Fort Ord and Hunter Liggett Military Reservation from 1 May to 21 July 1961 to determine optimum loading plans for the M113 armored personnel carrier as it was employed by:
- a. The ROAD-65 mechanized rifle platoon equipped with 4 APCs.
- b. The optimum mechanized rifle platoon with 5 APCs, developed by USA CDEC.
- c. An alternate mechanized rifle platoon with 4 APCs, developed by USA CDEC.
- 2. The experiment was held in conjunction with the Optimum Composition of the Rifle Squad and Platoon Experiment, which was conducted at Hunter Liggett Military Reservation during the same period.
- 3. During the field experimentation optimum loading plans were developed for the three aforementioned units. These plans are covered in detail in the annexes to this report. Other conclusions developed through this experimentation were as follows:
- a. Additional tie-down loops on the right and left sponsons and on the upper right bulkhead are required to provide load security.
- b. Three days' requirements of Classes I, II, IV, and V supplies can be carried, but only a one-day supply of water can be carried without reducing the amount of other classes of supplies.
- c. Proposed modifications to the M113 APC (rounding of the corners, additional gas tank, and vision slits) will decrease the amount of supplies carried on-vehicle by approximately one-third.

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General Information

A. AUTHORITY

"Second Half FY61 CDEC Experimentation Program", Letter, ATSWD-R 322 (CDEC), Headquarters, United States Continental Army Command, 10 March 1961.

B. PURPOSE

The purpose of the experiment was to determine optimum loading plans for the M113 armored personnel carrier for the ROAD-65 rifle platoon and the optimum mechanized rifle platoon as developed by USA CDEC experimentation for the 1965-1970 period.

C. CONDUCT OF EXPERIMENTATION

1. Description

- a. The experiment was conducted at Fort Ord and Hunter Liggett Military Reservation, California. The planning phase was from 4 January to 14 April 1961. From 15 March to 1 May tentative loading plans were prepared and stationary tests conducted. The field phase was conducted from 1 May to 21 July and the evaluation and reporting phase from 24 July to 25 August.
- b. The required types and quantities of weapons, equipment, and supplies were assembled at Fort Ord. When actual items were not obtainable substitutes were fabricated according to the most reliable data on size, weight, and configuration. The next steps were to design and make scaled models of the M113 APC and the supply items to be carried. Using these models, tentative loading plans were developed. The loading plans were further refined by stationary tests in which actual personnel and equipment were loaded in the M113 APC. By these means, and largely through trial and error, tentative loading plans were developed for field testing.

c. The field phase of the experiment was held in conjunction with the Optimum Composition of the Rifle Squad and Platoon Experiment. (Reference 15, p 9.) For the purpose of developing loading plans, six M113 APCs were assigned to the experimental units, which were three mechanized rifle platoons. In addition, a ROAD-65 mechanized rifle platoon was used for the loading experiment only. In the "Squad and Platoon" experiment various experimental squad and platoon organizations engaged in a series of tactical field operations over different types of terrain under conditions of both daylight and darkness. Basic loads, prescribed loads, physical arrangements of the loads and personnel in the carrier, and security of loads were tested during cross-country movement. Stability, balance, and flotation characteristics were examined by swimming carriers containing personnel and cargo loads of each type. Further details on the extent of the field experimentation, types of terrain, types of situations, and weather conditions are contained in the final report of t'e Optimum Composition of the Rifle Squad and Platoon Experiment.

2. Evaluation Criteria

Before developing loading plans, it was necessary to determine the characteristics of a good loading plan. On the basis of experience, military judgment, and loading plans developed by other agencies, the following criteria were developed:

- a. Securing all loads except for individual weapons and equipment.
- b. Loading the vehicle with the least possible time and effort.
- c. Proper distribution and security of loads to permit cross country movement and safe operation in water.
 - d. Accessibility of items in the following priority:
 - (1) Individual combat load
 - (2) Ammunition and alternate weapons, if any
 - (3) First aid equipment
 - (4) Vehicular maintenance tools
 - (5) Rations and water
 - (6) Full field load.
 - e. Least possible vulnerability of supplies to CBR attack.

- f. Access to exits at all times.
- g. Integrity of fire teams or weapons crews to permit commitment as a unit.
- h. Capability to dismount personnel rapidly in order to move out in a tactical formation in the least possible time.
- i. Carrying the greatest possible number of balanced one-day supply requirements insuring that enough supplies are carried to permit a unit to conduct normal dismounted combat operations for at least 24 hours without resupply from the vehicle.
- j. Distribution of equipment and supplies to insure the greatest possible comfort and convenience for the crew and to reduce fatigue during extended moves.
- k. Additional space for contingencies such as the need for an aid man or a forward observer or the requirement to transport a prisoner.

3. Method of Evaluation

- a. Three loading plans were developed: one for the ROAD-65 platoon, one for the optimum platoon equipped with five APCs, and one for the optimum platoon mounted in only four carriers. In each case, the evaluation criteria listed in Paragraph C2, above, were used as a basis for loading details.
- b. The approach was first to determine the supply requirements for a one-day period in combat, and then to determine the maximum number of one-day supply requirements that could be loaded in the carriers.
- c. Throughout the field test, military evaluators and officers and noncommissioned officers of the experimental units made observations and recommendations concerning all aspects of the loading plans. Loading plans were changed in accordance with their comments.

II Discussion

A. GENERAL

- 1. Three days' supply of Classes I, II, IV, and V could be carried for each platoon in its organic vehicles. No Class III supply was carried other than that in the fuel tank of the carrier. Only a one-day supply of water could be carried.
- 2. The amount of water required is increased by use of the quick-serve ration which requires an average of slightly more than one gallon of water per man per day for meals alone. This necessitated appropriate adjustments to the factors shown in FM 101-10. In addition to the water stowed inside the carrier, the total capacity can be increased to approximately one and one-half days' supply by enlarging the two water can brackets on the rear of the APCs. (See Figures D-5 through D-7, pp 144 through 146.)
- 3. In consideration of the effects of CBR warfare, the smallest possible amounts of equipment and supplies were loaded on the exterior of the carrier.

B. PLAN FOR THE ROAD-65 MECHANIZED RIFLE PLATOON

The general comments above apply to the loading plan for the ROAD-65 rifle squad and platoon, the details of which are shown in Annex A. It was found that the weight and bulk of the ammunition for the M67 recoilless rifle limited the amount of ammunition carried by the ammunition bearer to three rounds.

C. PLAN FOR THE OPTIMUM MECHANIZED RIFLE PLATOON

- 1. Exact information on the type of packaging or size, weight, and cubic measurement was not available for all weapons, equipment, or ammunition planned for issue in the 1965-1970 period. In such cases estimates were based on the most reliable data obtainable.
- 2. The "Squad and Platoon" experiment determined that the optimum number of carriers for the mechanized rifle platoon was five. Accordingly, loading plans for this platoon were based on five carriers. The detailed loading plans are shown in Annex B.

D. PLAN FOR THE ALTERNATE MECHANIZED RIFLE PLATOON

Although five is the optimum number of carriers, it is possible to mount the platoon in four. The detailed loading plans for this alternate

organization are shown in Annex C.

E. MODIFICATIONS TO THE M113 ARMORED PERSONNEL CARRIER

- 1. Through informal discussions with representatives of the US Army Infantry Center and the manufacturer of the M113 APC it was learned that consideration is being given to modifying the M113 APC as follows: rounding the corners to gain increased ballistic protection, increasing the fuel-carrying capacity by forty gallons, and providing vision slits in the right and left cargo loading areas of the vehicle. If these modifications are made, the usable cargo and storage space would be reduced by approximately one-third and the number of one-day supply requirements carried reduced accordingly.
- 2. It was determined that additional tie-down loops should be installed in the carrier. Although all loads were secured for cross-country movement, additional tie-down loops would lessen the problems in stowage and would improve load security. These loops should be located on the forward leading edge of the right and left sponsons and on the upper right bulkhead.
- 3. Since radios are not installed on the right interior of most vehicles, the stude and brackets provided there are not always required. These stude and brackets interfere with stowage and should be deleted by the manufacturer and installed as field modifications only on APCs used as command communication vehicles.

III Conclusions and Recommendations

A. CONCLUSIONS

- 1. The loading plan contained in Annex A is the optimum loading plan for the ROAD-65 mechanized rifle platoon.
- 2. The loading plan contained in Annex B is the optimum plan for the USA CDEC optimum mechanized rifle platoon.
- 3. The loading plan contained in Annex C is the optimum loading plan for the USA CDEC alternate mechanized rifle platoon.
- 4. Additional tie-down loops on the right and left sponsons and on the upper right bulkhead are required to provide load security.
- 5. Three days' requirements of Classes I, II, IV, and V supplies can be carried, but only a one-day supply of water can be carried without reducing the amount of other classes of supplies.
- 6. Proposed modifications to the M113 APC (rounding of the corners, additional gas tank, and vision slits) will decrease the amount of supplies carried on-vehicle by approximately one-third.

B. RECOMMENDATIONS

It is recommended that:

- 1. The loading plan contained in Annex A be adopted as the optimum loading plan for the ROAD-65 mechanized rifle platoon.
- 2. The loading plan contained in Annex B be adopted as the optimum loading plan for the USA CDEC optimum mechanized rifle platoon.
- 3. The loading plan contained in Annex C be adopted as the optimum loading plan for the USA CDEC alternate mechanized rifle platoon.
- 4. Additional tie-down loops be added on the carrier on the forward leading edges of the right and left sponsons and on the upper right bulkhead. See Annex D.
- 5. In determining modifications to the M113 APC, consideration be given to the reduced carrying capacity caused by such modifications.
- 6. The two water can brackets on the rear of the M113 APC be modified to carry four cans instead of two. See Annex D.

IV References

- Infantry Reference Data, March 1961, published by USAIS.
- 2) FM 17-20.
- 3) FM 57-35.
- 4) FM 101-10, Part 1.
- 5) TM 9-2300-224-10.
- 6) TM 9-2300-224-20.
- 7) TM 9-2300-224-20P.
- 8) "Small Arms Weapons System Concepts Conference, 25-26 October 1960", Springfield Armory, Springfield Mass (SECRET).
- 9) "The Infantry Battalion", Troop Test Program Report, 1st Marine Division, 21 December 1960.
- 10) Reference Data for Armor Units, 1960, published by USAARMS.
- 11) "Comparison of M59 and M113", Ground Mobility Department USAIS, Fort Benning, Ga.
- 12) "The Organization of the 1965-70 Basic Fighter Team (Modern Infantry Squad)", Staff Study, USAIS, 1 December 1959 (SECRET).
- 13) "Tentative Conclusions and Recommendations, Squad and Platoon Experiment, USA CDEC Spring 1961
 Experimentation (Third and Fourth Quarters FY61)",
 Letter, ATCDC-TC, 11 July 1961 (U).
- 14) "Rifle Company, Mechanized Division, Mechanized Infantry Battalion", Draft TOE 7-47E, USAIS.
- 15) "Optimum Composition of the Rifle Squad and Platoon", Final Report of Experiment, Hq USA CDEC, Ft Ord, California November 1961, (OFLUSE).

ANNEXES

Annex A

LOADING PLAN FOR ROAD-65 MECHANIZED RIFLE PLATOON

- 1. The ROAD-65 mechanized rifle platoon consists of three tenman rifle squads, one eleven-man weapons squad, and a three-man platoon headquarters. Each squad is equipped with an M-113 APC.
- 2. The platoon headquarters personnel are distributed among the squads for transportation purposes. In accordance with the doctrine contained in FM 17-20, the platoon leader and radio telephone operator were placed in the carrier of the first rifle squad. The third member of platoon headquarters, the platoon sergeant, was placed in the carrier of the weapons squad. The APCs of the second and third rifle squads contained only the ten men normally assigned to each squad. Squad composition, job titles, weapons, ammunition, equipment, storage diagrams, and photographs for each unit are shown in Appendixes 1 and 2, following.
- 3. Basic 'off-carrier' requirements for personal equipment were determined by ascertaining what the individual required to be self sufficient in combat for twenty-four hours of dismounted action.
- 4. Items of equipment issued to the squad and platoon were prescribed by draft TOE Nr 7-47E, Rifle Company, Mechanized Division, Mechanized Infantry Battalion, as prepared by USAIS. The exact location of each item for each man was determined by experimentation.
- 5. Rations used allow a three-day balanced diet for each individual. A combination of quick-serve meals and individual combat rations was selected; the ratio being two quick-serve meals to one individual combat ration. Other combinations of the two rations would produce comparable results since both types have approximately the same volume.

ANNEX A

APPENDIX I

RIFLE SQUADS ROAD-65 MECHANIZED RIFLE PLATOON

The composition of the rifle squads of the ROAD-65 mechanized rifle platoon is as follows:

1	Squad leader	2	Grenadiers
2	Team leaders	2	Riflemen
2	Automatic riflemen	1	Rifleman/drive

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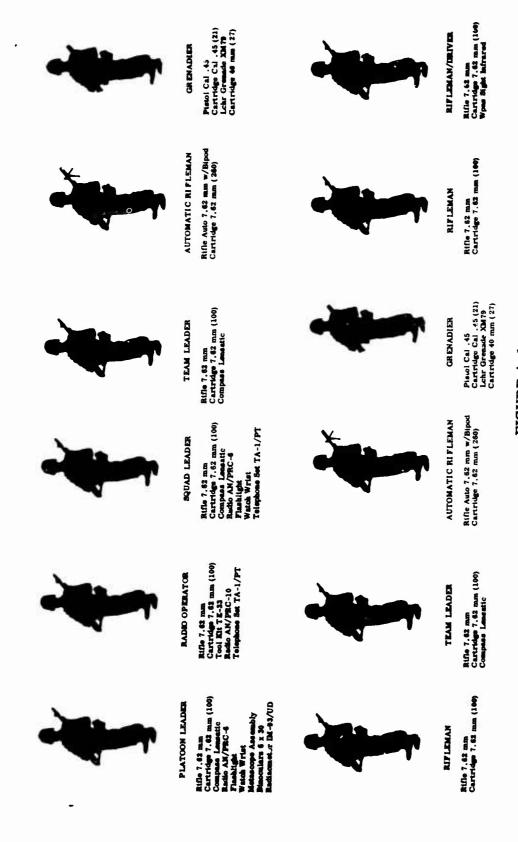


FIGURE A-1

1ST RIFLE SQUAD CARRIER PERSONNEL WITH THEIR ADDITIONAL* EQUIPMENT

*Items of equipment common to all rifle platoon personnel are listed in Table A-1, p 21.

B commercial

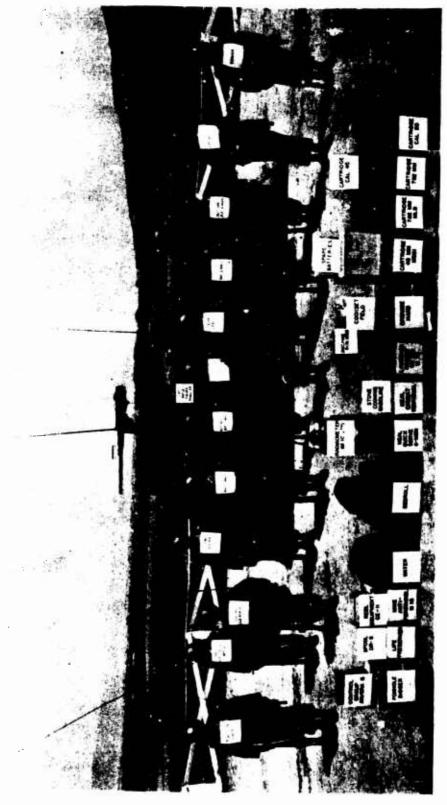


FIGURE A-2

PERSONNEL AND EQUIPMENT LOAD - 1ST RIFLE SQUAD CARRIER

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APPENDIX 1 to ANNEX A

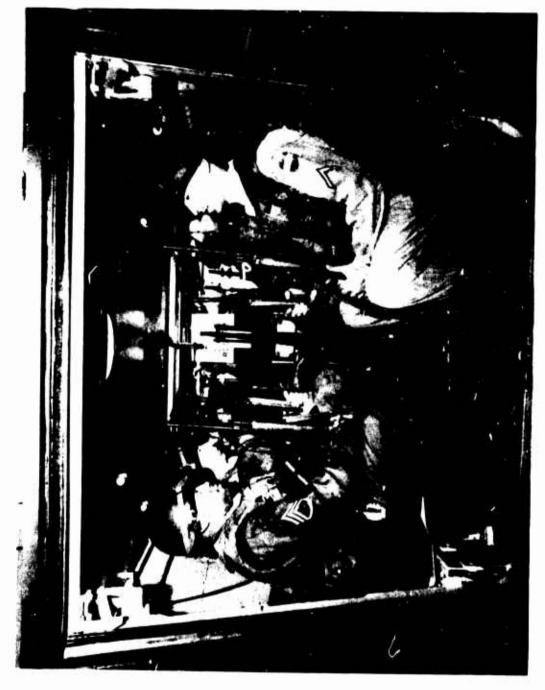


FIGURE A-3

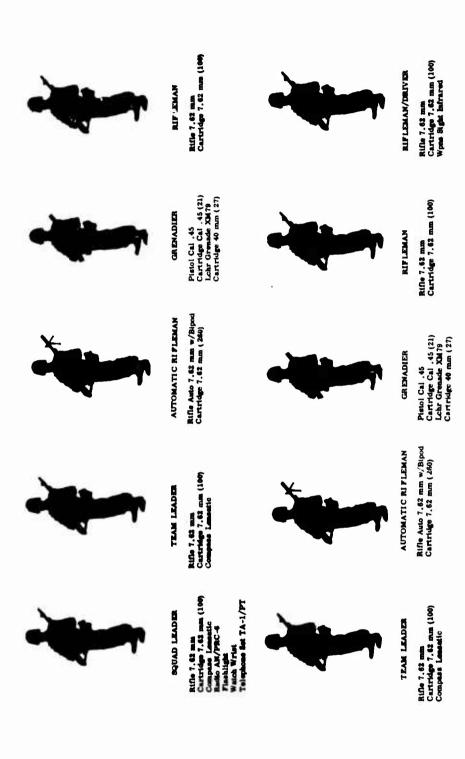


FIGURE A-4

2D AND 3D RIFLE SQUAD CARRIER PERSONNEL WITH THEIR ADDITIONAL* EQUIPMENT *Items of equipment common to all rifle platoon personnel are listed in Table A-1, p 21.



FIGURE A-5

PERSONNEL AND EQUIPMENT LOAD - 2D AND 3D RIFLE SQUAD CARRIERS

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APPENDIX 1 to ANNEX A



INTERIOR VIEW - 2D AND 3D RIFLE SQUAD CARRIERS

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TABLE A-1 EQUIPMENT COMMON TO ALL RIFLE PLATOON PERSONNEL*

Fighting Load Load Carrying Group (1) Belt, pistol (2) Suspenders, pack, field (3) Case, first aid packet, w/packet (4) Pouch, small arms, ammo (2) (5) Carrier, intrenching tool, w/tool (6) Cover, canteen, w/canteen and cup (7) Bayonet knife, w/scabbard (8) Grenade, hand, fragmentation (2) (9) Digger, foxhole b. Clothing (1) All-purpose integrated outer garment (2) Undershirt (3) Drawers (4) Socks (5) Helmet, steel, w/liner (6) Boots, combat Existence Load Pack, field, combat Ration, combat, individual (1/3) b. Armor, body, fragment protection C. d. Armor, eye e. Mask, protective, field Poncho, lightweight, OD g. Gloves, shell, leather, w/inserts Full Field Load a. Extra Clothing (1) Undershirt (2) Drawers (3) Socks Sleeping bag, comforter, w/carrier Tent, shelter half, w/pins and poles c.

* Additional items peculiar to personnel in different positions are shown in Figures A-1 and A-4, pp 14 and 18.

Toilet articles

Morale Kit

d.

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APPENDIX 1 to ANNEX A

TABLE A-2

ON-CARRIER EQUIPMENT LIST 1ST RIFLE SQUAD CARRIER

1.	Communications Equipment a. Radio Set, AN/GRC-7 b. Control Group, AN/GRA-6 c. Reel Equipment, CE-11 d. Spool DR-8, w/wire
2.	Ammunition a. Cartridge, 7.62mm (1) Semi-Automatic (1260) (2) Automatic (840) (3) Machine Gun MLB (2400)
	b. Cartridge, cal. 45 (50) c. Cartridge, cal. 50 (800) d. Cartridge, 40mm, M381 (144) e. Grenade, hand, fragmentation (25) f. Digger, foxhole (25) g. Launcher, rocket, 66mm, M72 (10) h. Mine, Claymore, anti-personnel, M18 (6)
3.	Additional Equipment a. Radiacmeter, IM-108/PD (1) b. Cookset, field (2) c. Stove, gasoline burner, one (2) burner, 5500 BTU d. Life Preserver, yoke, gas or oral (13) inflation w/gas cylinder e. Can, water, military, 5-gal (7) f. Meal, quick-serve, 6-man (12 cases) g. Ration, combat, individual (2 cases) h. Batteries, BA 279/U (2) i. Batteries, BA 270/U (4)
	i. Batteries, BA 270/U j. Machine Gun M60 k. Tripod, Machine Gun (1)

TABLE A-3

ON-CARRIER EQUIPMENT LIST 2D AND 3D RIFLE SQUAD CARRIERS

Communicatio : Equipment a. Radio Set, AN/VRC-7
 Ammunition a. Cartridge, 7.62mm (1) Semi-Automatic (840) (2) Automatic (840) (3) Machine Gun MLB (2400) b. Cartridge, cal .45 (50)
c. Cartridge, cal .50 (800) d. Cartridge, 40mm, M381 (144) e. Grenade, hand, fragmentation (25) f. Digger, foxhole (25) g. Launcher, rocket, 66mm, M72 (10) h. Mine, Claymore, anti-personne M18 (6)
Additional Equipment a. Cookset, field b. Stove, gasoline burner, one burner, 5500 BTU c. Life Preserver, yoke, gas or oral inflation w/gas cylinder d. Can, water, military, 5-gal e. Meal, quick-serve, 6-man f. Ration, combat, individual g. Batteries, BA 279/U h. Machine Gun M60 1. Tripod, Machine Gun (2) (2) (2) (3) (4) (5) (6) (1) (1)

TABLE A-4
WEIGHT DISTRIBUTION
1ST RIFLE SQUAD CARRIER

QTY	UNIT	ITEM	UNIT WEIGHT	RIGHT SIDE	LEFT SIDE
12	Case	Meal, quick-serve, 6-man	9.5	114	ł
2	Case	Ration, combat, individual	25	25	25
1	Case	Digger, foxhole	25	25	
1 1	Case	Grenade, hand, fragmentation	57.8	57. 8	
1	Срве	Mine, Claymore, anti-			ļ
		personnel M-18	18	18	
2	Case	Cartridge, 40 mm, M381	58	116	
5	Box	Cartridge, 7.62 mm (A130)	34	170	
12	Box	Cartridge, 7.62 mm MLB (A127) 17		204
1	Box	Cartridge, cal .45	3		3
7	Box	Cartridge, cal .50	37	L	259
10	Each	Launcher, rocket, 66 mm, M72	4.5	45	
2	Each	Stove, gasoline burner, one			1
		burner, 5500 BTU	3	6	
2	Each	Cookset, field	2	4	
7	Each	Can, water, military, 5-gal	50	250	100
4	Each	Battery, BA 270/U	2	8	
2	Each	Battery, BA 279/U	4		8
1 1	Each	Radiacmeter, IM-108/PD	4	4	_
13	Each	Life Preserver, yoke, gas or			
		oral inflation w/gas cylinder	4.5		58.5
1	Each	Mount, MT-297	58		58
1	Each	Radio, AN/GRC-8	137		137
1 1	Each	Control Group, AN/GRA-6	28		28
1	Each	Reel equipment, CE-11 w/wire	18		18
		CARGO WEIGHT EACH SIDE		842.8	898.5
		TOTAL CARGO WEIGHT			1,741.3

Above weights do not include combat equipped individuals. For computing individual weights an average of 240 pounds for each combat equipped individual was used as defined in FM 57-35.

APPENDIX 1 to ANNEX A

TABLE A-5
WEIGHT DISTRIBUTION
2D AND 3D RIFLE SQUAD CARRIERS

QTY	UNIT	ITEM	UNIT WEIGHT	RIGHT SIDE	LEFT SIDE
12	Case	Meal, quick-serve, 6-man	9, 5	114	-2-37
2	Case	Ration, combat, individual	25	25	25
ī	Case	Digger, foxhole	25	25	
ī	Case	Grenade, hand, fragmentation	57.8	57.8	
ī	Case	Mine, Claymore, anti-personnel		0	
- 1	0.000	M-18	' 18	18	
2	Case	Cartridge, 40mm, M381	58	116	
5	Box	Cartridge, 7.62mm (A130)	34	170	
12	Box	Cartridge, 7.62mm, MLB (A127)	17		204
1	Box	Cartridge, cal .45	3		3
7	Box	Cartridge, cal .50	37		259
10	Each	Launcher, rocket, 66mm, M72	4,5	45	
2	Each	Stove, gasoline burner, one			
		burner, 5500 BTU	3	6	
2	Each	Cookset, field	2	4	
7	Each	Can, water, military, 5-gal	50	250	100
4	Each	Battery, BA 270/U	2	8	
12	Each	Life Preserver, yoke, gas or			
		oral inflation w/gas cylinder	4.5		54
1	Each	Mount, MT297	58		58
1	Each	Radio, AN/VRC-7	32,5		32.5
		CARGO WEIGHT EACH SIDE		838.8	735.5
		TOTAL CARGO WEIGHT		0.00,0	1,574.3

Above weights do not include combat equipped individuals. For computing individual weights, an average weight of 240 pounds for each combat equipped individual was used as defined in FM 57-35.

APPENDIX 1 to ANNEX A

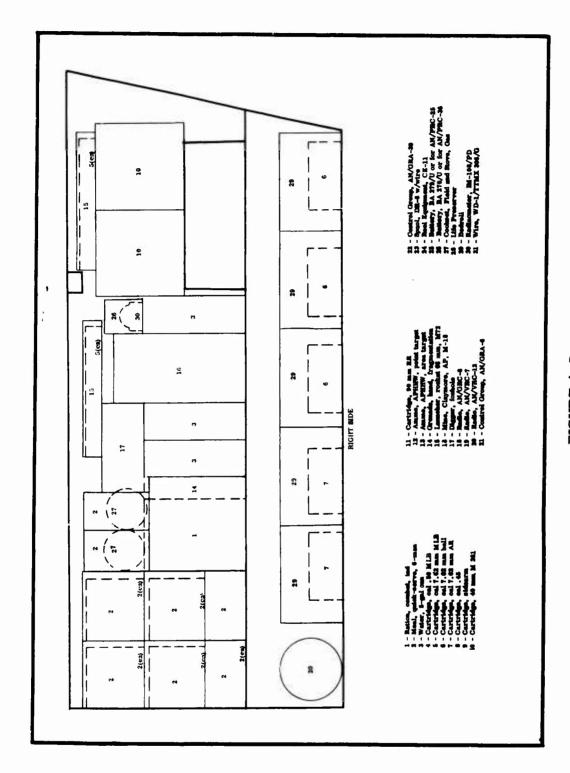


FIGURE A-7 LOADING DIAGRAM - 1ST RIFLE SQUAD CARRIER

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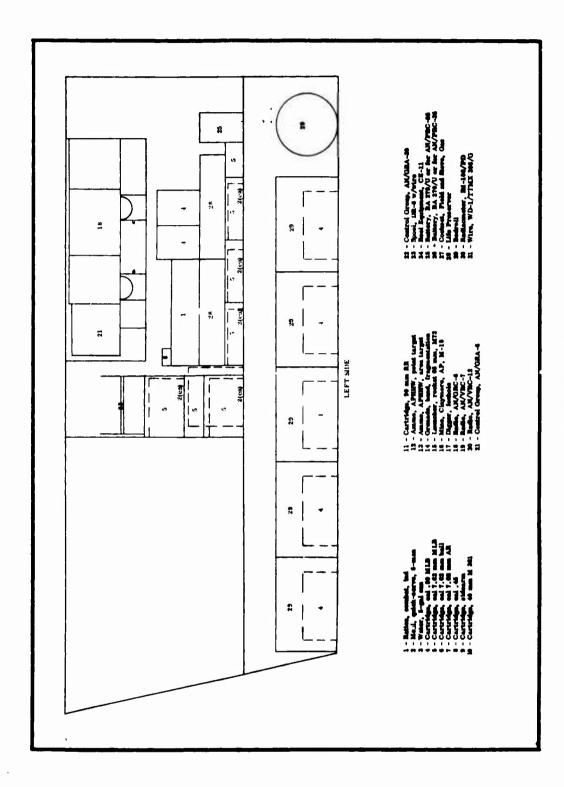


FIGURE A-8 LOADING DIAGRAM - 1ST RIFLE SQUAD CARRIER

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APPENDIX 1 to ANNEX A

Number of Containers and Try 7 five-gallon water came	il Cases, Meal, Quick-Serve	2 coclests, field with stoves gasolise burner inserted in containers.

of Containers and Type

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twenty-five greendes, containing framedes.

Radiacenster Di-108/PD

I case mines containing stx Mili mines, Claymore

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personnel and the case of things and annual the case of 40 mm annual the of the right sponson.	Lashed on the right sponson on top of the battery box cover.
	of the t

2 cases M-381 40 mm ammunition. Each case has seventy-two rounds.

Number of Containers and Type

10 Launchers, rocket, 66 mm M72.

Location on Vehicle

Five are lashed on the right sponson on top of the case of foxbole diggers and the case of mines, anti-personnel. Five are lashed on the right sponson on top of the two cases of 40 mm ammunition.

Lashed on the right rear floor of the carrier under the seats.

3 boxes ammunition 7.62 for M-14 rifles. Each has 420 rounds

2 boxes ammunition 7.62 mm for automatic rifles. Each box has

120 rounds.

2 cases of life preservers containing six life preservers each. One additional preserver in driver compartment.

Lashed on the right forward floor of the carrier under the seats.

One case of life preservers is lashed on the left sponson under the case of individual combat rations and above the annaunition 7.62 mm. Another case is above the 7.62 mm annaunition on left sponson and below the cal. 50 annaunition. The thirteenth life preserver is in the driver's compartment.

Lashed on the radio mount to the left of the radio.

Control Group, AN/GRA6

Reel Equipment CE 11 containing TS-10 and Spool DR-8 with wire

Lashed to left sponson on top of machine gan ammunition 7.62 mm to gas tank.

Lushed on the deck of the left sponson.

12 boxes of ammunition 7.62 mm for Machine Gun. Each box has two hundred rounds.

7 boxes of ammunition cal .50. Each box has one hundred rounds.

Five are lashed under the left seats. Two are lashed on top of the life preservers on the left

Lashed above case of individual combat rations on the left sponson and below Control Group, AN/GRAS.

I box cal .45 ammunition. Box bas fifty rounds.

Batteries BA 279

12 bedrolls

1	2.
to deck of left spouson near mm ammunition.	Six bedrolls are placed under the
ğ ;	a de
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8	10 1
	t bedrolls
15 7.6	Agr.

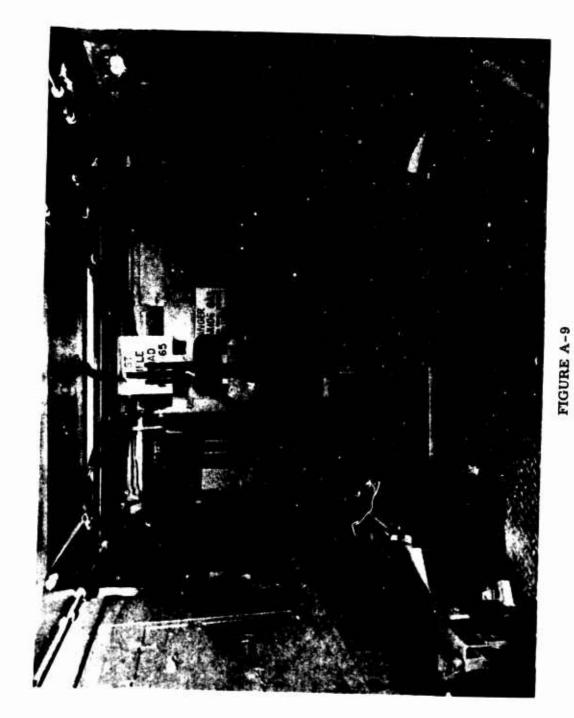
placed under the left seats.

Strapped to the security guard seat. Lashed to top exterior of carrier.

TABLE A-6

Tripod, machine gun Machine Gun M-60

STOWAGE AND TYPE CONTAINER - 1ST RIFLE SQUAD CARRIER



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APPENDIX 1 to ANNEX A



FIGURE A-10

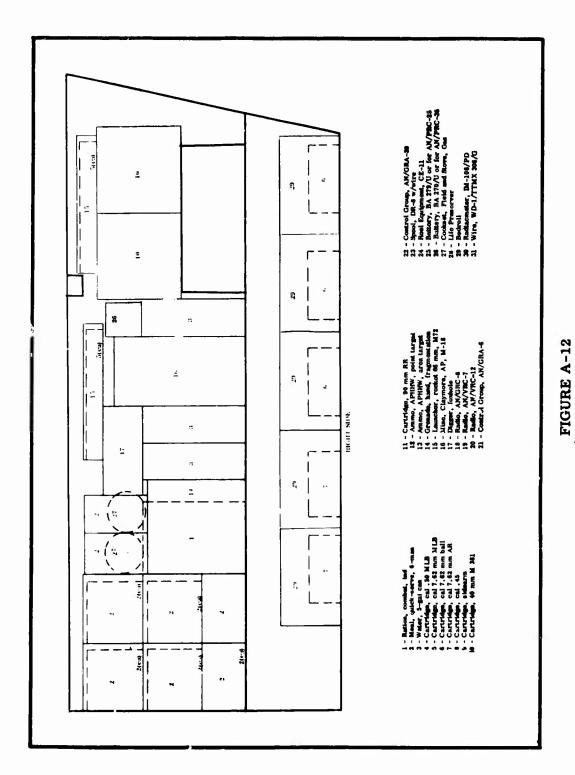
INTERIOR VIEW (RIGHT) - 1ST RIFLE SQUAD CARRIER

30



INTERIOR VIEW (LEFT) - 1ST RIFLE SQUAD CARRIER

31



LOADING DIAGRAM - 2D AND 3D RIFLE SQUAD CARRIERS

32

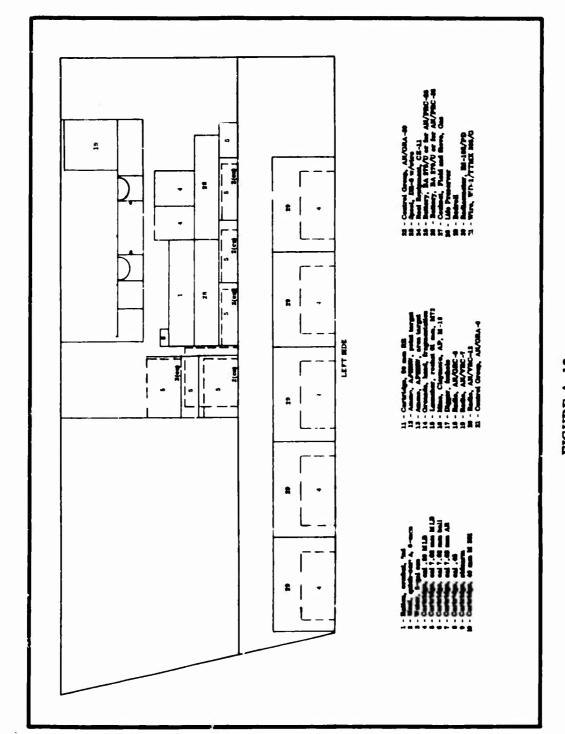


FIGURE A-18 LOADING DIAGRAM - 2D AND 3D RIFLE SQUAD CARRIERS

APPENDIX 1 to ANNEX A

33

Number of Containers and Type	7 five gal water cans		12 cases Meet, Quick-Serve	Z contacts, field with stores gasoline burner insected in containers
A	PP	ENDIX	1 to A	NNEX A

of which cans	Four cans are mounted on the rear and outside. Two cans are lashed to the right sponson between the case of "Jacs and spersonnel. One can is lashed between the case of mines and-personnel and the batter box cover.
Mest, Quek-Serre	Ten custs are ashed on the right spanson next to the engine compartness. Two cases are tashed on the right sponson on top of the case of grounders.
ata, fleid with stores, barner insected in	Stoves and cook acts are lassed to the bulkhest on the right aponan- on top of the case of individual

Z Conkacts, Seld with stores	Stores and cook sets are lassed to
gusoffine barner insected in	the bull-best on the right aponage
costainers	on top of the case of individual combat nations and in your of the
	case of greenises.
I case fodiole diggers con-	Lashed on the right aponaon on top
taining twenty-five furbole	of the two case of water.

on tap of the case of individual combat ratios and in rear of the case of gromades.	Lashed on the right aponaon on top of the two case of water.	Decease is lashed on the right pomeon near to the case of Meal, Spide-Serve and in riar of the case of grounder. One case is
on tup cumbat c.ue of		Special Control

One case of life preservers is lashed on the left sponson under the case of individual combat rations and above the ammunition 7.62 mm. Another case is lashed above the 7.62 mm ammunition on the left sponson and be low the cal. 30 arransition.

Twelve (12) boxes are lashed on the deck of the left sponson.

12 boxes of ammunition 7.62 mm for Machine Gun. Each box has 200 rounds.

Lashed on the right forward floor of the earrier under the seuts.

2 boxes of ammunition 7.62 mm for automatic rifles. Each box has 420 rounds.

3 boxes of ammuniton 7.62 mm for M-14 riflee. Each box has 420 rounds.

2 cases of life preservers containing six life preservers each.

Lashed on the right rear floor of the carrier under the seats.

ummunition.

Five are liashed on the right sponson on top of the case of mines, and "personnel. Five are liashed on the right sponson on top of the two cases of 40 mm

Lushed on the right on the top of the hattery box cover. Location on Vehicle

2 cases M-381 40 mm ...mmunition. Each case has seventy -two rounds.

Number of Containers and Type

Lixertion on Vehicle

10 faunchers rocket, 66 mm M72

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whed on the right sponson tween the water cans.	ashed on the right appearon in roat of the case of individual
3 3	358

I case hand grenades contain-ing twenty-five grenades. Iragmontation

Batteries BA 270

i case mines containing six M18 Clays:ore mines

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Tripod is lashed to top exterior of carrier

Tripod, machine pun

Five are laubed under the left seats. Two are laubed on top of the case of life preservers on the left sponson.	Lariod above case of individual combat ratioss on left sposson and below Costrol Group, AN/GRA6.	Five bedroils are placed under the right seats. Five bedroils are placed under the left seats.	Strapped to the security guard
8.	Вох		
7 boxes of ammunition cal .50. Each box has 100 rounds.	i box cal .45 ammunition. Box has fifty rounds.	10 bedrolls	Machine Gun M-60

TABLE A-7

STOWAGE AND TYPE CONTAINER - 2D AND 3D RIFLE SQUAD CARRIERS

١

34

2 cuses todividual combat



FIGURE A-14
INTERIOR VIEW (CENTER) - 2D AND 3D RIFLE SQUAD CARRIERS

APPENDIX 1 to ANNEX A

35



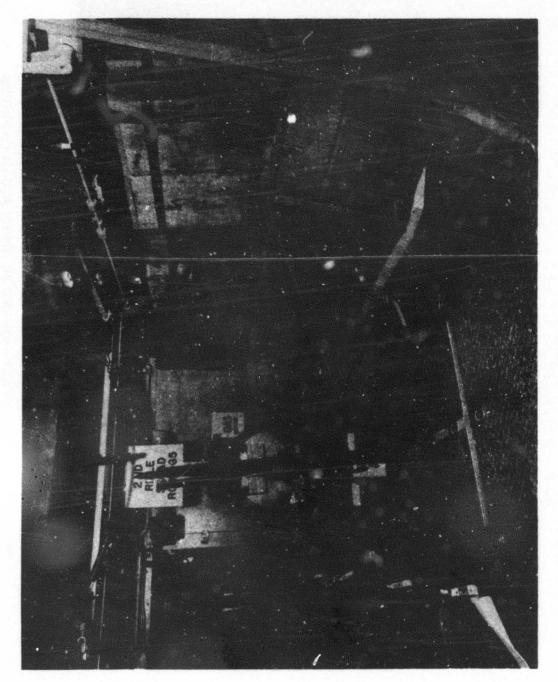


FIGURE A-15

APPENDIX 1 to ANNEX A

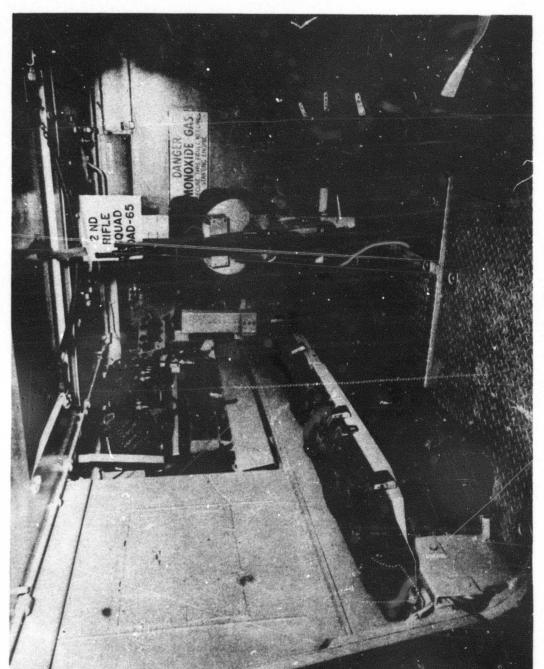


FIGURE A-16

APPENDIX 2

WEAPONS SQUAD ROAD-65 MECHANIZED RIFLE PLATOON

The composition of the weapons squad of the ROAD-65 mechanized rifle platoon is as follows:

1	Squad leader		Asst 90 mm RR gunners
2	Machine gunners		Ammunition bearer
2	Asst machine gunners	1	Ammunition bearer/driver
2	90 mm RR gumers		

CONTENTS

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A-10	Weight Distribution Weapons Squad Carrier	45
A-11	Stowage and Type Container - Weapons Squad Carrier	48

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APPENDIX 2 to ANNEX A

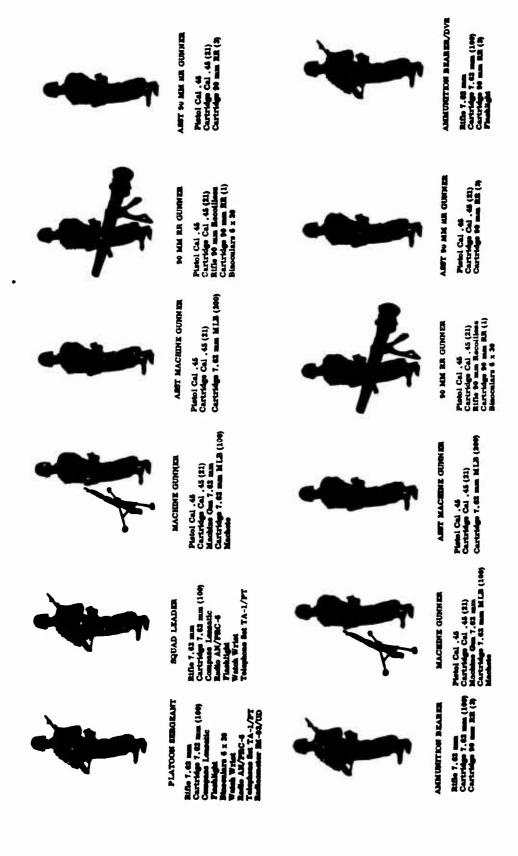


FIGURE A-17

WEAPONS SQUAD CARRIER PERSONNEL WITH THEIR ADDITIONAL* EQUIPMENT

*Items of equipment common to all weapons squad personnel are listed in Table A-8, p 43.



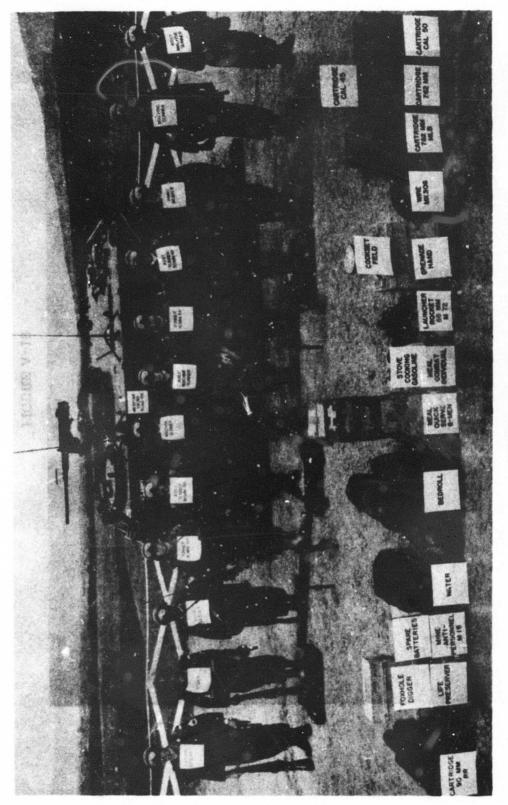


FIGURE A-18

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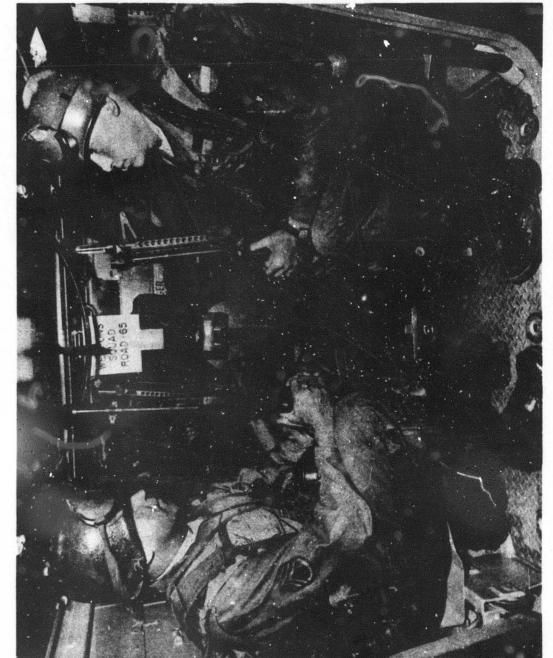


FIGURE A-19

APPENDIX 2 to ANNEX Λ

TABLE A-8 EQUIPMENT COMMON TO ALL WEAPONS SQUAD PERSONNEL*

1. Fighting Load

- a. Load Carrying Group
 - (1) Belt, pistol
 - (2) Suspenders, pack, field
 - (3) Case, first aid packet, w/packet
 - (4) Pouch, small arms, ammo (2)
 - (5) Carrier, intrenching tool, w/tool
 - (6) Cover, canteen, w/canteen and cup
 - (7) Bayonet knife, w/scabbard
 - (8) Grenade, hand, fragmentation (2)
 - (9) Digger, foxhole
- b. Clothing
 - (1) All-purpose integrated outer garment
 - (2) Undershirt
 - (3) Drawers
 - (4) Socks
 - (5) Helmet, steel, w/liner
 - (6) Boots, combat

2. Existence Load

- a. Pack, field, combat
- b. Ration, combat, individual (1/3)
- c. Armor, body, fragment protection
- d. Armor, eye
- e. Mask, protective, field
- f. Poncho, lightweight, OD
- g. Gloves, shell, leather, w/inserts

3. Full Field Load

- a. Extra Clothing
 - (1) Undershirt
 - (2) Drawers
 - (3) Socks
- b. Sleeping bag, comforter, w/carrier
- c. Tent, shelter half, w/pins and poles
- d. Toilet articles
- e. Morale Kit

^{*} Additional items peculiar to personnel in different positions are shown in Figure A-17, p 40.

TABLE A-9

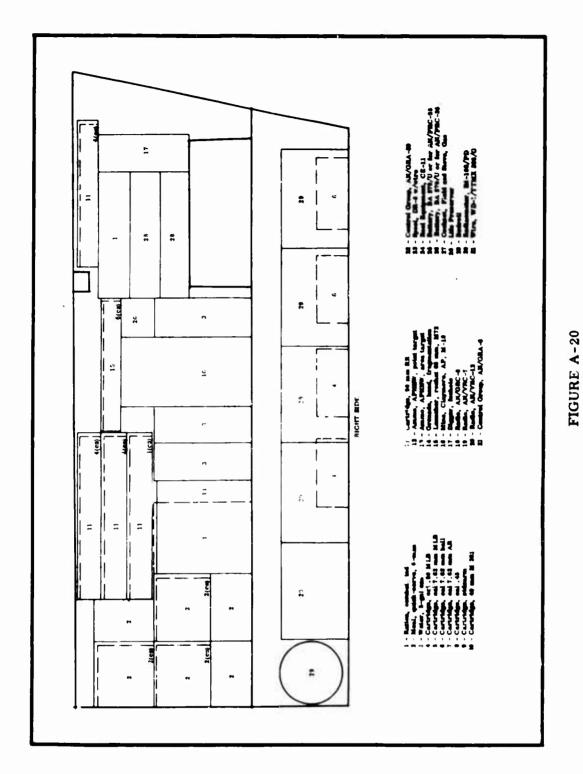
ON-CARRIER EQUIPMENT LIST WEAPONS SQUAD CARRIER

1.	Coı	mmunication Equipment		
		Radio Set, AN/GRC-8		
	b.	Wire, WD-1/TT MX306		
2.	Am	munition		
	a.	Cartridge, 7.62mm		
		(1) Semi-automatic	(840)	
		(2) Machine gun MLB	(4000)	
	b.	Cartridge, cal .45	(100)	
	c.	Cartridge, cal .50	(800)	
		Cartridge, 90mm	(16)	
	e.	Grenade, hand, fragmentation	(25)	
	f.	Launcher, rocket, 66mm, M72	(10)	
	g.	Digger, foxhole	(25)	
	h.	Mine, Claymore, anti-personnel, M18	(6)	
3.	Add	litional Equipment		
		Cookset, field	(2)	
	b.	Stove, gasoline burner, one burner,	• •	
		5500 BTU	(2)	
	c.	Life Preserver, yoke, gas or oral		
		inflation w/gas cylinder	(13)	
	d.	Can, water, military, 5-gal	(7)	
	e.	Meal, quick-serve, 6-man	(12 cases)	
	f.		(2 cases)	
	g.	Batteries, BA 279/U	(2)	
	h.	Tripod, machine gun	(2)	

TABLE A-10 WEIGHT DISTRIBUTION WEAPONS SQUAD CARRIER

QTY	UNIT	ITEM	UNIT WEIGHT	RIGHT SIDE	LEFT SIDE
12	Case	Meal, quick-serve, 6-man	9.5	85.5	28.5
2	Case	Ration, combat, individual	25	50	
2 1	Case	Digger, foxbole	25	35	
1	Case	Grenade, hand, fragmentation	57.8	57.8	
1	Case	Mile, Claymore, anti-personn	el		
		M18	18	18	
2	Box	Cartridge, 7.62mm (A130)	34	68	
20	Box	Cartridge, 7.62mm (A127)	17		340
2	Box	Cartridge, cal .45	3		6
7	Box	Cartridge, cal . 50	37	74	185
10	Each	Launcher, rocket, 66mm, M72	4.5	27	18
2	Each	Stove, gasoline burner, one			
		burner, 5500 BTU	3		6
2	Each	Cookset, field	2		4
7	Each	Can, water, military, 5-gal	50	250	100
4	Each	Battery, BA 270/U	2	8	
13	Each	Life Preserver, yoke, gas or			
		oral inflation, w/gas cylinder	4.5	54	4.5
1	Each	Mount, MT 297	58		58
1	Each	Radio, AN/GRC-8	137		137
16	Round	Cartridge, 90mm, RR	9, 9	152	
1	Each	Wire, WD-1/TT MX 306	25		25
-		CARGO WEIGHT EACH SIDE TOTAL CARGO WEIGHT		879.3	912.0 1,791.3

Above weights do not include combat equipped individuals. For computing individual weights, an average weight of 240 pounds for each combat equipped individual was used as defined in FM 57-35.



LOADING DIAGRAM - WEAPONS SQUAD CARRIER

APPENDIX 2 to ANNEX A

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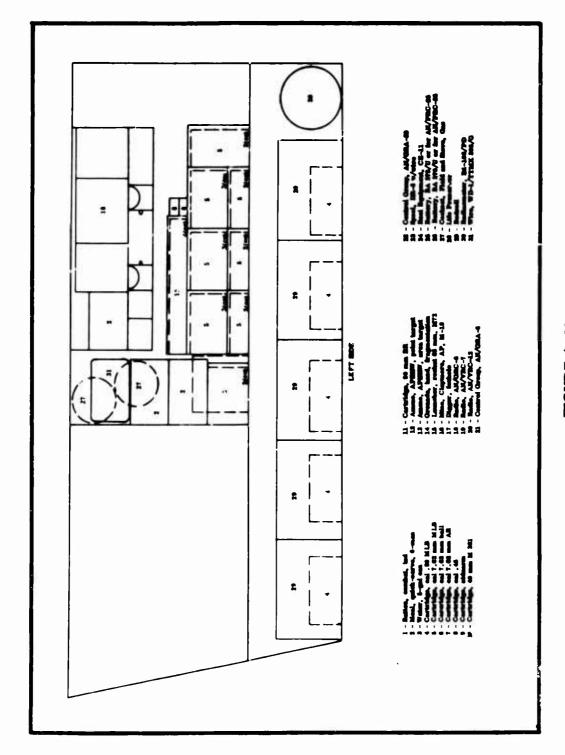


FIGURE A-21

LOADING DIAGRAM - WEAPONS SQUAD CARRIER

Location on Vehicle	Lashed on top of the water can and between the case of mines, autiparsonnel and the case of life preservers. Lashed on top of the bestery box cover on the right appearant and	case of forhole digners. The thir- teenth life preserver is in the driver's compartment. Lashed on the right sponson beside the case of his preservers and on top of the besteary but cover.	Boves and cooksets are leaked on the left sponson above the case of Meal Quick-Serve, in rear of vire, MC306 and between the gas test and the radio accust.	Labbed on the deck of the left apondon.	Labed on left sponson above the 7.45 mm summitties and next to the Lameders, rocket, 66 mm, M72.	Five are lasked under the left seats. Two are lasked under the forward right seats.	Bx bedrolls are placed under the right seets. Bx bedrolls are placed under the left seets. Lashed on the left sponson in front of the cooksets, field and on top of the case of Meal, Quick-Serve.	Lashed on the right rear floor of the carrier under the seats. Lashed to top exterior of carrier.	
Number of Containers and Type	2 cases of Matteries, BA/270 2 cases of life preservers containing six life preservers	1 case forhole diggers con- mining twenty-five forhole diggers.	2 cooksets, field with stoves, gasoline inserted in containers	for Machine Guns. Each box has 200 rounds.	2 boxes cel . 45 sammusition. Each box has fifty rounds.	7 boxes of anamistico cal .50. Each box has 100 rounds.	12 bedroils Wire, MX306	2 boxes of annumention 7.62 mm for M-14 rifles. Each box has 420 rounds.	
Location on Vehicle	Four cass are mounted on the rear, outside. Two cass are lashed to the right, conson between the case of greander, and the case of mines anti-personnel. One can is lashed between the case of mines, arti-personnel and the battery box cover.	Nine cases are lashed on the right sposson sent to the engine compartment. Two cases are lashed on the left sposson above the 7.62 mm annumities sent to the gas tank. One case is strauped to the left of the radio on the radio mount.	One case to lashed on the right spon- son sett to the case of Meal, Quick- Serve and in the rear of the case of granades. One case to lashed to the right sponson between the Lauscher, rocket, 66 mm, M72 and the case of fortheir disserve and no for of the	Like preservers. Lashed on the right sponson in frost	of the case of individual combat rations. Lashed on the right sponson between	the water cans. Twelve rounds are lashed on the right sponson above the case of bidi-	vidual Combat Rations, the case of hand grenades and water cans and between the case of Meal Quick-Serve and the Launchers, rocket 66 mm, M72. Four rounds are Lashed above the case of individual Combat Rations and the case of individual Combat Rations and the rase of	State lashed on the right sponson above the case of mines, anti-personnel and the spare batteries, BA/270, Four are lashed on the left sponson above the 7.62 nm ammunition and	below the radio mount.
Number of Containers and Type	7 five-pal water cans	12 cases Meel, Quick-Serve	- rases of Bellividual Combat Rations	I case of hand grenades con-	talaing twosty-five grenades, fragmentation. I case misse containing six	M18 Claymere mines. 16 rounds of 90 mm RR ammu- mition		10 Launchers, rocket, 66 mm M72	

TABLE A-11

STUWAGE AND TYPE CONTAINE.? - WEAPONS SQUAD CARRIER

FOR OFFICIAL USE ONLY

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APPENDIX 2 to ANNEX A

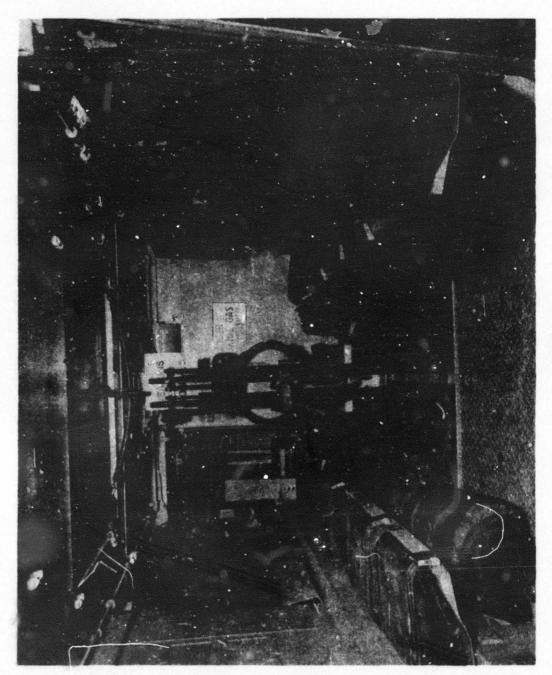
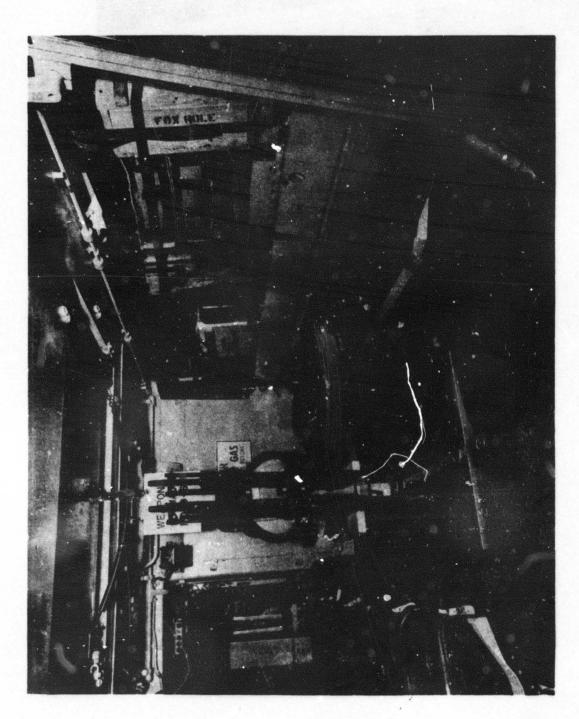


FIGURE A-22

APPENDIX 2 to ANNEX A





APPENDIX 2 to ANNEX A

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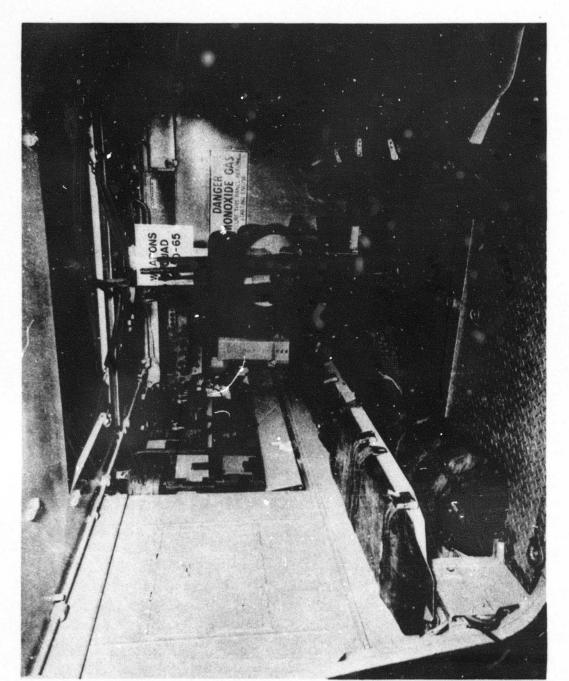


FIGURE A-24

Annex B

LOADING PLAN FOR OPTIMUM MECHANIZED RIFLE PLATOON

- 1. The USA CDEC optimum mechanized rifle platoon consists of four twelve-man rifle squads and a five-man platoon headquarters. Each squad and the platoon headquarters is equipped with an M113 APC.
- 2. In accordance with doctrine contained in FM 17-20 the platoon sergeant was placed in the carrier of the fourth rifle squad so that all key members of the platoon headquarters would not be in one vehicle. Squad and headquarters composition, job titles, equipment, weapons, ammunition, stowage diagrams, and photographs are shown in Appendixes 1 and 2, following.
- 3. Basic 'off-carrier' requirements for personal equipment were determined by ascertaining what the individual required to be self sufficient in combat for twenty-four hours of dismounted action.
- 4. Equipment requirements were developed in conjunction with the Optimum Composition of the Rifle Squad and Platoon Experiment. The equipment lists were based on existing requirements, military experience and judgment, and equipment assumed to be available during the 1965-70 period.
- 5. Rations used allow a three-day balanced diet for each individual. A combination of quick-serve meals and individual combat rations was selected; the ratio being two quick-serve meals to one individual combat ration. Other combinations of the two rations would produce comparable results since both types have approximately the same volume.

ANNEX B

APPENDIX I

PLATOON HEADQUARTERS OPTIMUM MECHANIZED RIFLE PLATOON

The composition of the platoon headquarters of the optimum mechanized rifle platoon is as follows:

1	Platoon leader	1	Radio operator/messenge
1	Platoon sergeant	1	Driver
1	Assistant platoon sergeant		

FIGURES

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B-4	Stowage and Type Container -	64

APPENDIX 1 to ANNEX B

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Platoon Headquarters



FIGURE B-1

PLATOON HEADQUARTERS CARRIER PERSONNEL WITH THEIR ADDITIONAL* EQUIPMENT

*Items of equipment common to all platoon headquarters personnel are listed in Table B-1, p 59.

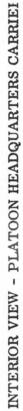


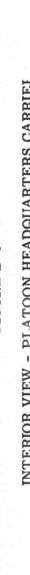
FIGURE B-2

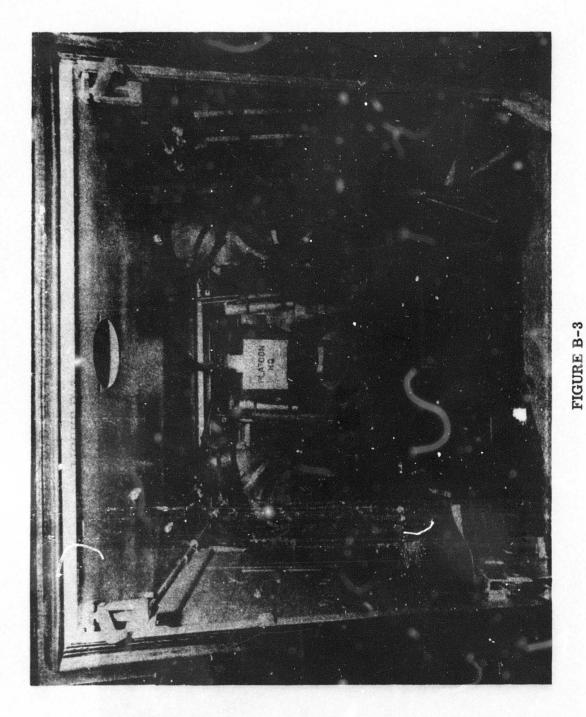
PERSONNEL AND EQUIPMENT LOAD - PLATOON HEADQUARTERS CARRIER

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APPENDIX 1 to ANNEX B







APPENDIX 1 to ANNEX B

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TABLE B-1 EQUIPMENT COMMON TO ALL PLATOON HEADQUARTERS PERSONNEL*

1. Fighting Load

- Load Carrying Group
 - (1) Belt, pistol
 - (2) Suspenders, pack, field
 - (3) Case, first aid packet, w/packet
 - (4) Pouch, small arms, ammo (2)
 - (5) Carrier, intrenching tool, w/tool
 - (6) Cover, canteen, w/canteen and cup
 (7) Bayonet knife, w/scabbard
 (8) Grenade, hand, fragmentation (2)

 - (9) Digger, foxhole

Clothing

- (1) All-purpose integrated outer garment
- (2) Undershirt
- (3) Drawers
- (4) Socks (5) Helmet, steel, w/liner
- (6) Boots, combat

2. Existence Load

- a. Pack, field, combat
- Ration, combat, individual (1/3)
- c. Armor, body, fragment protection
- d. Armor, eye
- e. Mask, protective, field
- Poncho, lightweight, OD
- g. Gloves, shell, leather, w/inserts

3. Full Field Load

- Extra Clothing
 - (1) Undershirt
 - (2) Drawers
 - (3) Socks
- Sleeping bag, comforter, w/carrier
- Tent, shelter half, w/pins and poles
- Toilet articles d.
- Morale Kit e.

APPENDIX 1 to ANNEX B

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^{*} Additional items peculiar to personnel in different positions are shown in Figure B-1, p 56.

TABLE B-2

ON-CARRIER EQUIPMENT LIST PLATOON HEADQUARTERS CARRIER

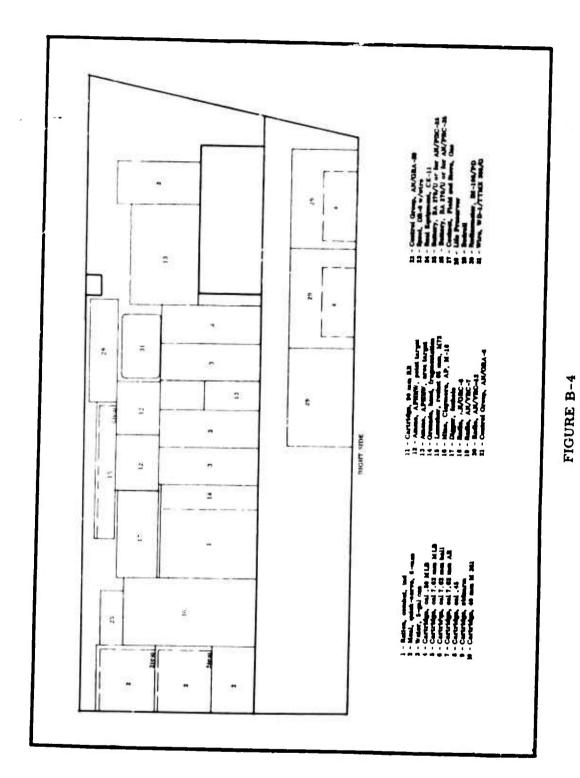
1				
1.	Cor	mmunication Equipment		
	a.			
	b.	Control Group, AN/GRA-39		
	c.	Reel Equipment, CE-11 w/wire		
	d.	Wire, WD-1/TT MX306		
2.	Am	munition		
	a.	APHHW, point target	(2400)	
	b.	APHHW, area target	(96)	
		Cartridge, sidearm	(50)	
	d.	Cartridge, cal .50	(800)	
		Grenade, hand, fragmentation	(25)	
		Digger, foxhole	(25)	
		Launcher, rocket, 66mm, M72	(10)	
	h.	Mine, Claymore, anti-personnel, M18	(6)	
3.	Ado	litional Equipment		
	a.	Cookset, field	(2)	
	b.	Stove, gasoline burner, one burner,		
1		5500 BTU	(2)	
	c.	Life Preserver, yoke, gas or oral		
		inflation w/gas cylinder	(6)	
	d.	Can, water, military, 5-gallon	(9)	
	e.	Meal, quick-serve, 6-man	(6 cases)	
İ		Ration, combat, individual	(1 case)	
		Batteries, radio	(6)	
	h.	Radiacmeter, IM-108/PD	(1)	
L				

TABLE B-3 WEIGHT DISTRIBUTION PLATOON HEADQUARTERS CARRIER

OTV	UNIT	ITEM	UNIT	RIGHT	LEFT
QTY	UNII	ITEM	WEIGHT	SIDE	SIDE
6	Case	Meal, quick-serve, 6-man	9.5	47.5	9.5
1	Case	Ration, combat, individual	25	25	
1	Case	Digger, foxhole	25	25	
1	Case	Grenade, hand, fragmentation	57.8	57.8	1
1	Case	Mine, Claymore, anti-personnel	l,		1
	1	M18	18	18	
20	Box	Cartridge, 7.62mm, MLB (A127)	17		340
1	Box	Cartridge, sidearm	3*		3*
7	Box	Cartridge, cal .50	37	74	185
2	Box	Ammunition, APHHW, point			
	1	target	25*	50*	
1-1/3	Box	Ammunition, APHHW, area			
		target	58*	77*	
10	Each	Launcher, rocket, 66mm, M72	4.5	27	18
2	Each	Stove, gasoline burner, one			
	1	burner, 5500 BTU	3		5
2	Each	Cookset, field	2		4
9	Each	Can, water, military, 5-gal	50	350	100
2	Each	Battery, radio	4*	8*	
4	Each	Battery, radio	2*		8*
6	Each	Life Preserver, yoke, gas or			
		oral inflation w/gas cylinder	4.5	27	_
1	Each	Mount, radio	58*		58*
1	Each	Radio, AN/VRC-12	137*		137*
1	Each	Control Group, AN/GRA-39	28		29
1	Each	Reel, equipment, CE-11 w/wire			18
1	Each	Wire, WD-1/TT MX306	25	25	
1	Each	Radiacmeter, IM-108/PD	4		4
		CARGO WEIGHT EACH SIDE		811.3	918.5
		TOTAL CARGO WEIGHT			1,729.8

Above weights do not include combat equipped individuals. For computing individual weights, an average weight of 240 pounds for each combat equipped individual was used as defined in FM 57-35.

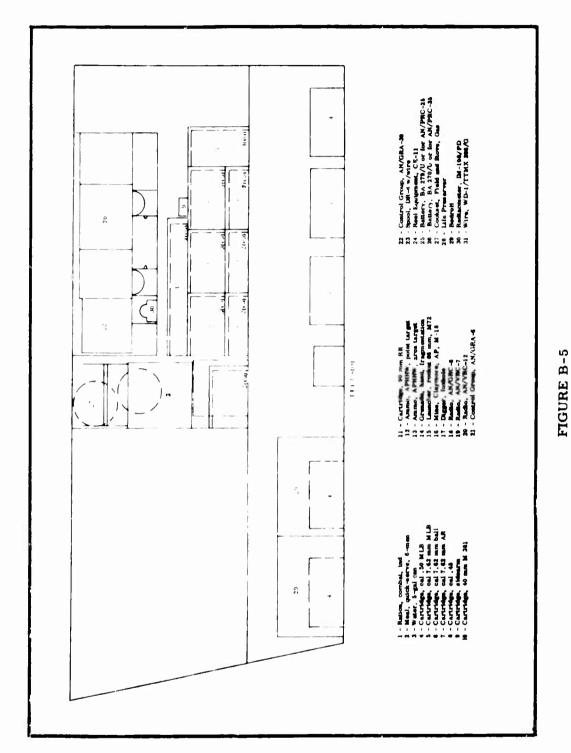
^{*} Estimated



LOADING DIAGRAM - PLATOON HEADQUARTERS CARRIER

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LOADING DIAGRAM - PLATOON HEADQUARTERS CARRIER

APPENDIX 1 to ANNEX B

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Number of Containers and Type	Location on Vehicle	Number of Containers and Type	Location on Vehicle
9 five-gal water cans	Four cans are mounted on the rear and outside. Two cans are lashed to the right sponson between the case of grenades and the small box of APHFW, area ammunition, Two cans	Wire, MX306	Lashed on top of water cans between AFHHW Point/Ammunitie and area ammunition on the right sponson.
	are on the right sponson between the small box of APHW area ammunition and the battery, box. One can is lashed to the battery, box cover.	I case of life preservers containing stylife preservers.	Lashed on top of APHHW point ammunition and wire MX306 on the right sponson.
6 cases Meal, Quick-Serve	Five cases are lashed on the right sponson next to the engine compart-ment. One case is lashed on left sponson above 7.62 mm annunition, next to gas tank.	10 Launchars, rocket, 66 mm. M72	Six are liashed above the case of forbole diggers and the case of A PHHW point ammunition on the right sponson. Four are lashed to 7.62 mm ammunition below the radio mount on the left sponson.
l case mines contraria, six Mb Claynory mines.	One case is lashed on the right sponsor between the cases of Meal, Quick-Serve and the case of hand grenades.	2 cooksets, field with stove gasoline inserted in container.	Stoves and cooksets are lashed to the Jeff aponson next to the gas tank, above the case of Mesi, Quick-Serve,
Batteries, Radio VV PRC-25	Lushed to the case of mines, anti- personnel next to the cases of Meal, Quick-Serve on the right sponson.	Roel Equipment CE 11	Lashed to the left sponson in front of the stoves and cooksets and also the case of Most, Quick Serve.
i case Individual Combat Rations	Lashed to the right sponson next to the case of mines, anti-personnel and in the rear of the case of hand grenades.	Control Group, AN/GRA 39 Radiacmeter IM-108/PD	Lashed to the radio mount on the left sponson. Lashed to the radio mount on the
I case hand grenades containing twenty-five grenades, fragmentation.	Lashed on the right sponson in front of the case of Individual Combat Rations and between the case of mines, anti-personnel and the water can,	20 boxes of ammunition 7.52 mm for Machine Guns.	ieft sponson below the Control Group, AN/GRA 39 Lashed to the deck of the left sponson.
i case of foxbole diggers con- taining twents five foxbole diggers.	Lashed on top of the case of in-tvidual Combat Rations and the case of hrad grenades on the right sponson,	7 boxes of amministion cal .50. Each box has 100 rounds.	Five are lashed under the left seats. Two are lashed at the real of the carrier under the right seat
2 boxes of APHIW Ammunition Point Target, each box has 1200 rounds.	Lashed on top of the water cans on the right sponson.	Batteries, Radio AN/PRC 35	Lashed in the center of the carrie
2 boxes of APHPW Area Ammunition. One box has 72 rounds. One box has 24 rounds.	Small box is lashed to the right sponson between the water cans. Large box is tashed to battery box cover next to water cans.	l box of anmunition, sidearm	Lashed above ammunition 7.62 mment to the Launchers, rocket, 66 M 72 on the left sponson.

TABLE B-4

STOWAGE AND TYPE CONTAINER - PLATOON HEADQUARTERS CARRIER

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APPENDIX 1 to ANNEX B

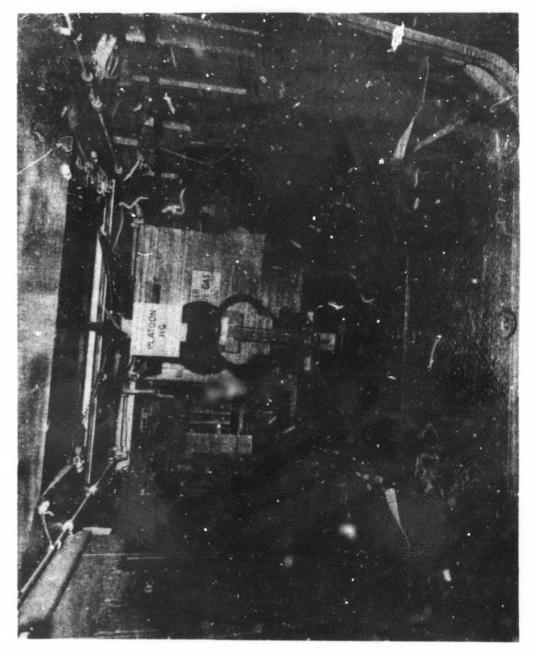


FIGURE B-6

APPENDIX 1 to ANNEX B



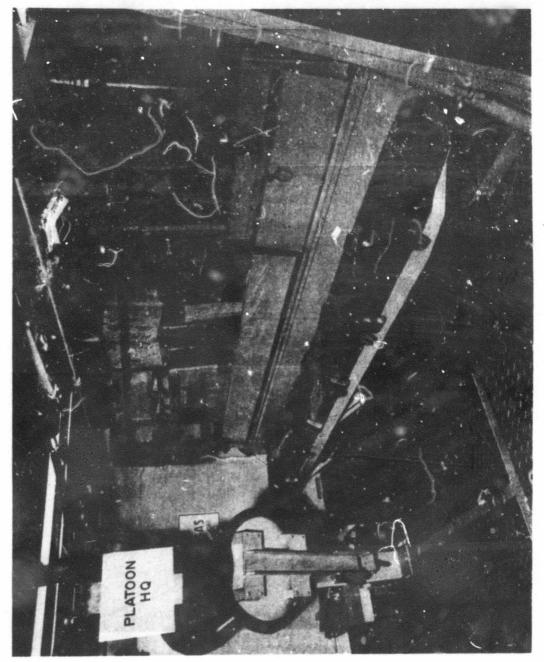


FIGURE B-7

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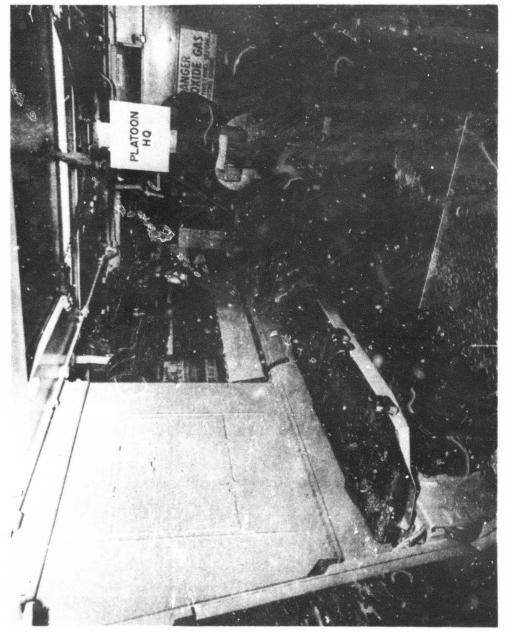


FIGURE B-8

INTERIOR VIEW (LEFT) - PLATOON HEADQUARTERS CARRIER

APPENDIX 2

RIFLE SQUADS OPTIMUM MECHANIZED RIFLE PLATOON

The composition of the rifle squads of the optimum mechanized rifle platoon is as follows:

1	Squad leader	2	M60 machine gunners
2	Team leaders	2	Riflemen/asst machine gunner
4	Riflemen	1	Driver

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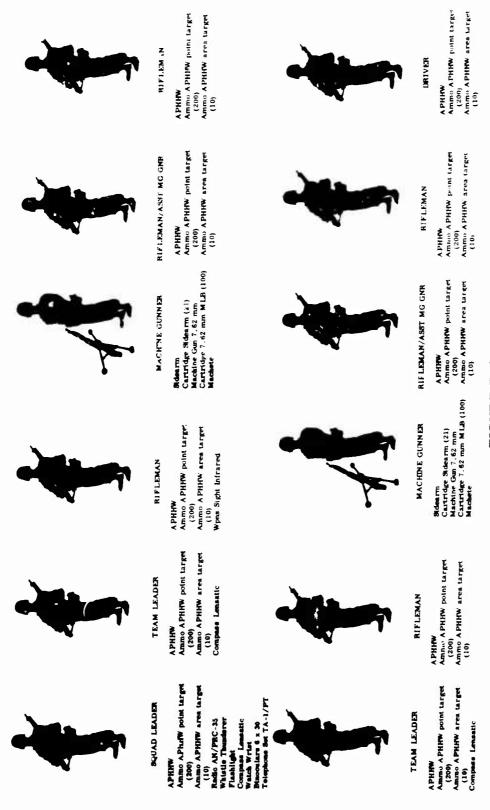


FIGURE B-9

1ST, 2D AND 3D RIFLE SQUAD CARRIER PERSONNEL WITH THEIR ADDITIONAL* EQUIPMENT

*Items of equipment common to all rifle platoon personnel are listed in Table B-5, p 77.

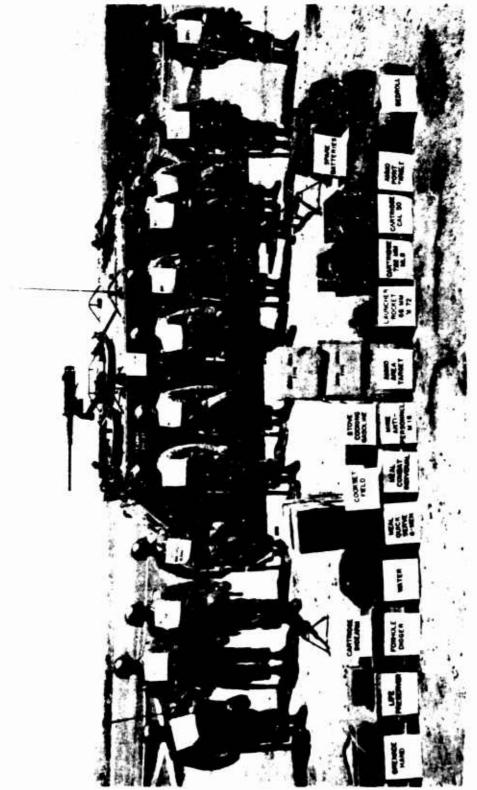


FIGURE B-10

PERSONNEL AND EQUIPMENT LOAD - 1ST, 2D AND 3D RIFLE SQUAD CARRIERS

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FIGURE B-11

INTERIOR VIEW - 1ST, 2D AND 3D RIFLE SQUAD CARRIERS

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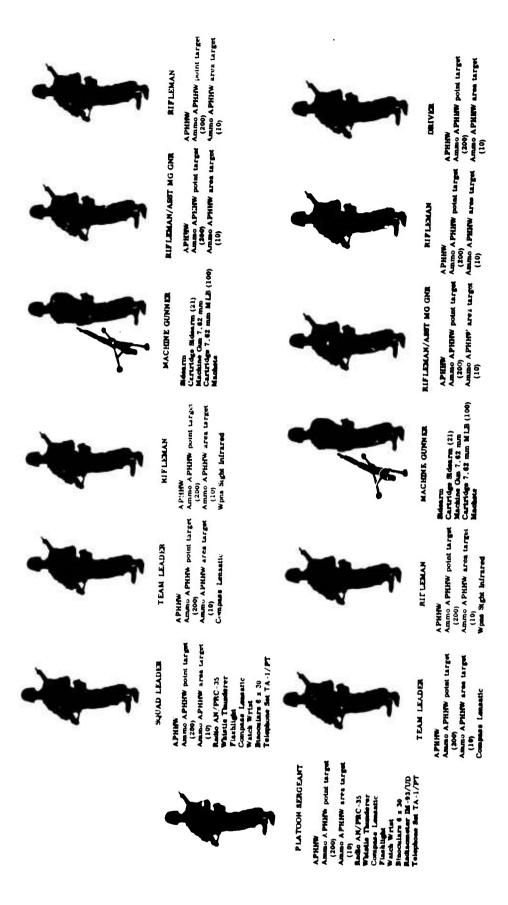


FIGURE B-12

4TH RIFLE SQUAD CARRIER PERSONNEL WITH THEIR ADDITIONAL* EQUIPMENT

*Items of equipment common to all rifle platoon personnel are listed in Table B-5, p 77.

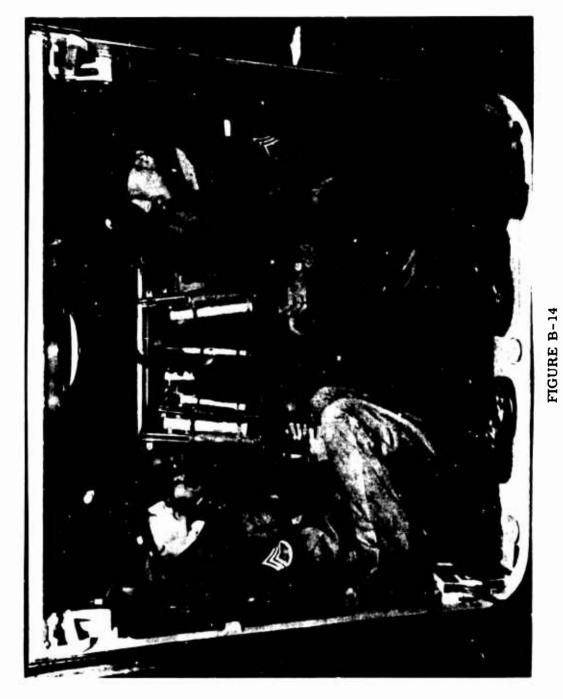


FIGURE B-13

PERSONNEL AND EQUIPMENT LOAD - 4TH RIFLE SQUAD CARRIER

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INTERIOR VIEW - 4TH RIFLE SQUAD CARRIER

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TABLE B-5 EQUIPMENT COMMON TO ALL RIFLE PLATOON PERSONNEL*

1. Fighting Load

- a. Load Carrying Group
 - (1) Belt, pistol
 - (2) Suspenders, pack, field
 - (3) Case, first aid packet, w/packet
 - (4) Pouch, small arms, ammo (2)
 - (5) Carrier, intrenching tool, w/tool
 - (6) Cover, canteen, w/canteen and cup
 - (7) Bayonet kaife, w/scabbard
 - (8) Grenade, hand, fragmentation (2)
 - (9) Digger, foxhole
- b. Clothing
 - (1) All-purpose integrated outer garment
 - (2) Undershirt
 - (3) Drawers
 - (4) Socks
 - (5) Helmet, steel, w/liner
 - (6) Boots, combat
- 2. Existence Load
 - a. Pack, field, combat
 - b. Ration, combat, individual (1/3)
 - c. Armor, body, fragment protection
 - d. Armor, eye
 - e. Mask, protective, field
 - f. Poncho, lightweight, OD
 - g. Gloves, shell, leather, w/inserts
- 3. Full Field Load
 - a. Extra Clothing
 - (1) Undershirt
 - (2) Drawers
 - (3) Socks
 - b. Sleeping bag, comforter, w/carrier
 - c. Tent, shelter half, w/pins and poles
 - d. Toilet articles
 - e. Morale Kit

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^{*} Additional items peculiar to personnel in different positions are shown in Figures B-9 and B-12, pp 70 and 74.

TABLE B-6

ON-CARRIER EQUIPMENT LIST RIFLE SQUAD CARRIERS

	ommunication Equipment	
а	Radio Set, AN/VRC-12	
2. A	mmunition	
а	APHHW, point target	(4800)
b	APHHW, area target	(216)
C	Cartridge, sidearm	(50)
d	Cartridge, cal .50	(800)
	Cartridge, 7.62mm MLB	(4000)
f.	Grenade, hand, fragmentation	(25)
g	Digger, foxhole	(25)
b.	Launcher, rocket, 66mm, M72	(10)
1.	Mine, Claymore, anti-personnel, M18	(6)
3. A	dditional Equipment	
a	Cookset, field	(2)
	Stove, gasoline burner, one burner,	• ,
	5500 BTU	(2)
c.	Life Preserver, yoke, gas or oral	
	inflation w/gas cylinder	(13)
d.	Can, water, military, 5-gallon	(6)
e.	Meal, quick-serve, 6-man	(12 cases)
f.	Ration, combat, individual	(2 cases)
g	Batteries, radio	(4)
h.		(2)

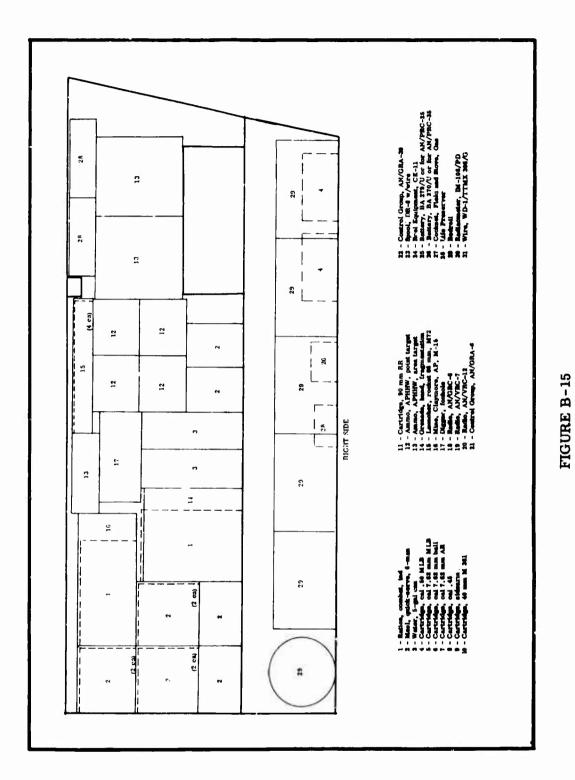
TABLE B-7
WEIGHT DISTRIBUTION
RIFLE SQUAD CARRIERS

QTY	UNIT	ITEM	UNIT WEIGHT	RIGHT SIDE	LEFT SIDE
12	Case	Meal, quick-serve, 6-man	9.5	95	19
2	Case	Ration, combat, individual	25	50	
1 1	Case	Digger, foxhole	25	25	
ī	Case	Grenade, hand, fragmentation	57.8	57.8	1
l i l	Case	Mine, Claymore, anti-personne	el.		ĺ
		M18	18	18	ĺ
20	Box	Cartridge, 7.62mm, MLB (A12	27) 17		340
1	Box	Cartridge, sidearm	3*		′ 3*
7	Box	Cartridge, cal .50	37	74	185
4	Box	Ammunition, APHHW, point			
		target	25*	100	ļ
3	Box	Ammunition, APHHW, area			ł
		target	58*	135	39*
10	Each	Launcher, rocket, 66inm, M72	4.5	18	27
2	Each	Stove, gasoline burner, one			_
		burner, 5500 BTU	3		6
2	Each	Cookset, field	2		4
6	Each	Can, water, military, 5-gal	50	200	100
4	Each	Battery, radio	2*	8*	
13	Each	Life Preserver, yoke, gas or			,
		oral inflation w/gas cylinder	4.5	58.5	
1	Each	Mount, radio	58*		58*
1	Each	Radio, AN/VRC-12	137*		137*
		CARGO WEIGHT EACH SIDE		839.3	918.0
		TOTAL CARGO WEIGHT			1,757.3

Above weights do not include combat equipped individuals. For computing individual weights, an average weight of 240 pounds for each combat equipped individual was used as defined in FM 57-35.

* Estimated

APPENDIX 2 to ANNEX B



LOADING DIAGRAM - RIFLE SQUAD CARRIERS

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FIGURE B-16

LOADING DIAGRAM - RIFLE SQUAD CARRIERS

1

81

Number of Containers and Type 6 five-gal water cans	
2 9	

Four cans are mounted on the rear and outside. Two cans are lashed on the right sponson between the case of hand grenades and the case of Meal, Quick-Serve. Location on Vehicle

4 boxes of Ammunition, APHHW, point target. Each box con-taining 1200 rounds. Number of Containers and Type

Four boxes are lashed on top of the cases of Meal, Quick-Serve and between the case of foxhole diggers and Ammunition, APHHW, area target on the right sponson.

Location on Vehicle

foxhole diggers and the cases of Ammunition. APHIW, point target on the right appeason. Four are lashed to the 7.62 mm ammunition below the radio mount on the left aponeon. Two are standing upright between the 7.62 mm ammunition and tt; boxes of ammunition and tt; boxes of ammunition area target on the left spossoe. Four are lashed above the case of

10 Launchers, Rocket, 66 mm, M72

sponson next to the engine compartment.

Two cases are lashed between the

Eight cases are lashed on the right

12 cases of Meal, Quick-Serve

cans, water and the battery box cover on the right sponson. Two cases are lashed on the left sponson above the 7.62 mm ammunition next to the gas tank.

e the
A PHHW area conson. The ver is lashed
alongside each other on mmunition, APHHW are in the right sponson. The ille preserver is lashe the right seat.
B8228
of the target thart benea

2 cases of life preservers containing six life preservers each and one extra

One case is lashed on the right spon-non above the cases of Meal, Quick-Berre and in rear of the case of mines, suit-personnel. One case is lashed between the case of Meal, Quick-Serve and the water cans, and in rear of the case of hand grenades on the right sponson.

2 cases of individual Combat Rations

2 cooksets, field with stove gasoline inserted in container

Lashed above cases of Meal, Quick-Serve and in front of case of Individual

l oase mines, containing six Mis Claymore mines

Combat Rations on the right sponson.

Lashed on the right-sponson in front of the case of Individual Combat Rations and between the cases of Meal, Quick-Serve and water cane.

containing twenty-five grenades, fragmentation

Lished on top of the water cans on the right sponson.

containing twenty-five foxhole diggers

Stoven and cooksets are lashed in rear of cases of Meal, Quick-Serve next to the gas tanks on the left by onson.

Lashed to the deck of the left sponron 20 boxes of ammunition, 7.62 mm for Machine Guns. Each box has 200 rounds

Five are lashed under the left seats Two are lashed to the rear of the carrier under the right seats.

7 boxes of ammunition cal .50 Each box has 100 rounds

Lashed in the center of the carrier under the right seats.

Lashed to the Ammunition, APHHW area target on the radio mount.

I box of Ammunition, Sidearin

Batteries, radio

2 Tripods, machine gun M60

Two large boxes are lashed on the right sponson on top of the battery box cover. The small box is lashed on top of the case of foxbole diggers and between the case of mines, antipersonnel and launches; s. rocket, 66 mm, M72 on the right sponson. One small box is lashed next to the Launchers, Rocket, 66 mm, M72 on the edge of the left sponson behind the driver. One small box is lashed next to the radio on the radio mount.

5 boxes of Ammunition, APHHW, area target. Two boxes contain-ing 72 rounds each. Three boxes containing 24 rounds each.

12 bedrolls

Lashed to top exterior of carrier.

Six bedroits are placed under the right seats and six bedroits are placed under the left seats.

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TABLE B-8

STOWAGE AND TYPE CONTAINERS - RIFLE SQUAD CARRIERS

Carried Section in



FIGURE B-17

INTERIOR VIEW (CENTER) - RIFLE SQUAD CARRIER

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FIGURE B-18

INTERIOR VIEW (RIGHT) - RIFLE SQUAD CARRIER

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FIGURE B-19

INTERIOR VIEW (LEFT) - RIFLE SQUAD CARRIER

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APPENDIX 2 to ANNEX B

Annex C

LOADING PLAN FOR ALTERNATE MECHANIZED RIFLE PLATOON

- 1. The USA CDEC alternate mechanized rifle platoon consists of four twelve-man rifle squads and a four-man platoon headquarters. Each squad is equipped with an M113 APC.
- 2. In accordance with doctrine contained in FM 17-20 the four members of the platoon headquarters were distributed among the squad carriers for transportation purposes as follows:

Platoon leader - 1st rifle squad carrier Radio operator/messenger - 2nd rifle squad carrier Assistant platoon sergeant - 3rd rifle squad carrier Platoon sergeant - 4th rifle squad carrier

Squad composition, job titles, equipment, weapons, ammunition, stowage diagrams, and photographs for each unit are shown in the appendix.

- 3. Basic "off-carrier" requirements for personal equipment were determined by ascertaining what the individual required to be self sufficient in combat for twenty-four hours of dismounted action.
- 4. Equipment requirements were developed in conjunction with the Optimum Composition of the Rifle Squad and Platoon Experiment. The equipment lists were based on existing requirements, military experience and judgment, and equipment assumed to be available during the 1965-70 period.
- 5. Rations used allow a three-day balanced diet for each individual. A combination of quick-serve meals and individual combat rations was selected; the ratio being two quick-serve meals to one individual combat ration. Other combinations of the two rations would produce comparable results since both types have approximately the same volume.

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ANNEX C

APPENDIX

RIFLE SQUADS ALTERNATE MECHANIZED RIFLE PLATOON

The composition of the rifle squads of the alternate mechanized rifle platoon is as follows:

- 1	Carroa	loodom
	Suuau	leader

2 Team leaders 4 Riflemen

2 Rifleman/assistant machine gunners

2 M-60 machine gunners

1 Driver

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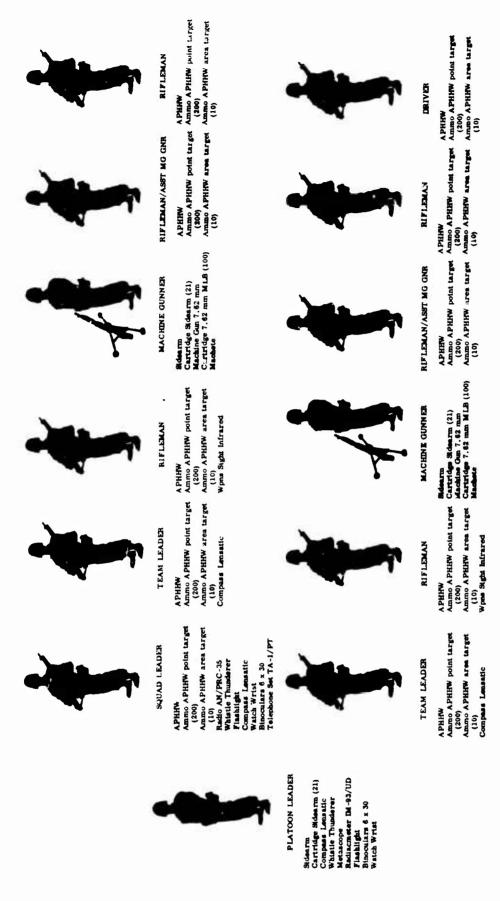


FIGURE C-1

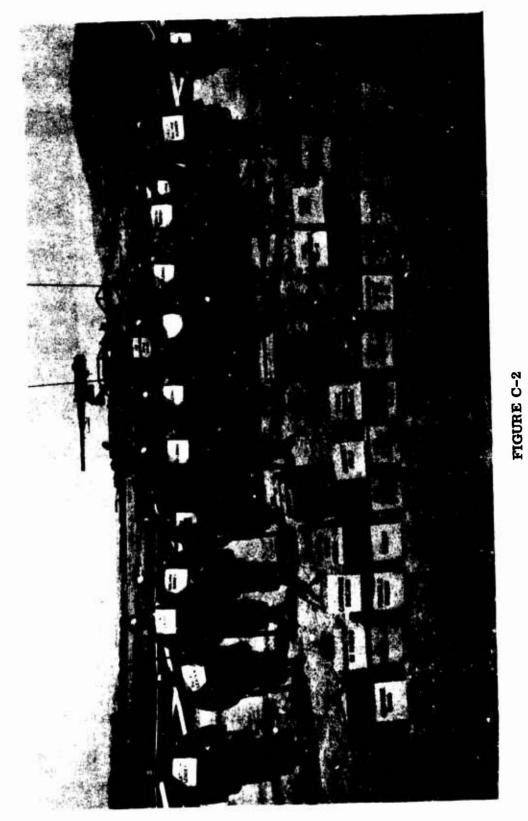
1ST RIFLE SQUAD CARRIER PERSONNEL WITH THEIR ADDITIONAL* EQUIPMENT

*Items of equipment common to all rifle platoon personnel are listed in Table C-1, p 105.

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PERSONNEL AND EQUIPMENT LOAD - 1ST RIFLE SQUAD CARRIER

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FIGURE C-3

INTERIOR VIEW - 1ST RIFLE SQUAD CARRIER

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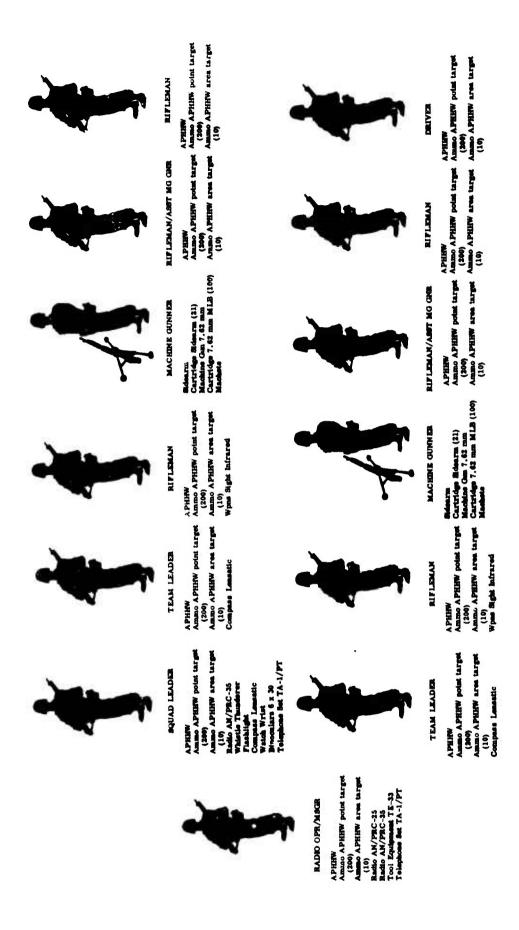


FIGURE C-4

2D RIFLE SQUAD CARRIER PERSONNEL WITH THEIR ADDITIONAL* EQUIPMENT

*Items of equipmen common to all rifle plateon personnel are listed in Table C-1, p 105.

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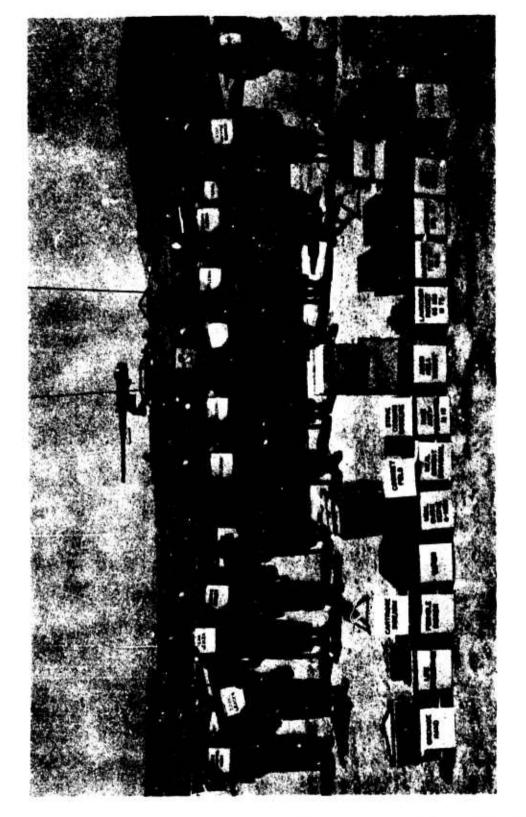


FIGURE C-5

PERSONNEL AND EQUIPMENT LOAD - 2D RIFLE SQUAD CARRIER

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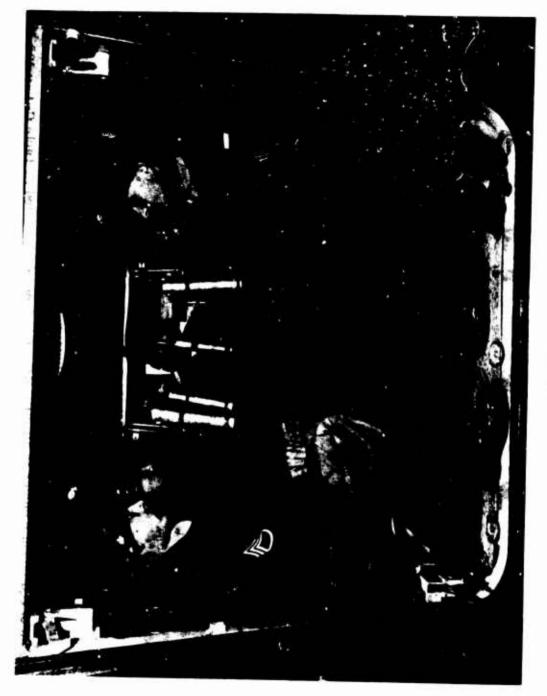


FIGURE C-6

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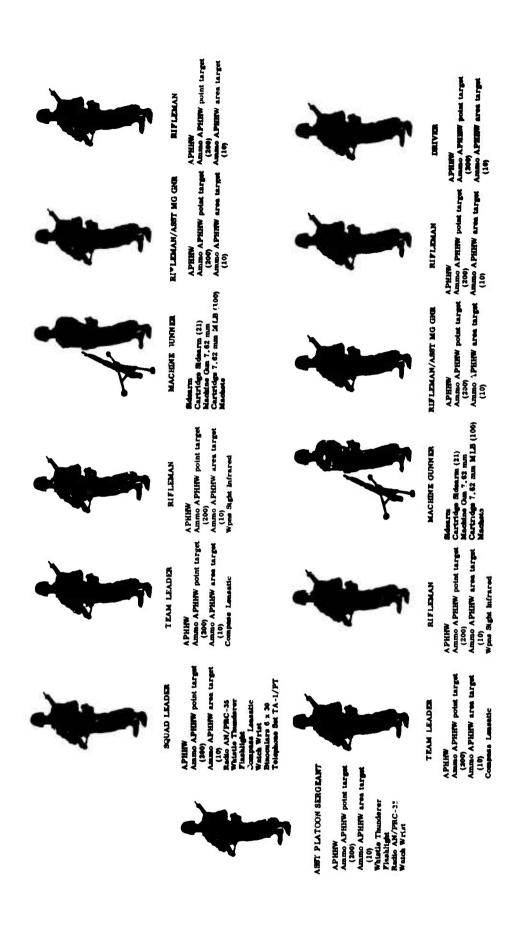


FIGURE C-7

3D RIFLE SQUAD CARRIER PERSONNEL WITH THEIR ADDITIONAL* EQUIPMENT

*Items of equipment common to all rifle platoon personnel are listed in Table C-1, p 105.



FIGURE C-8

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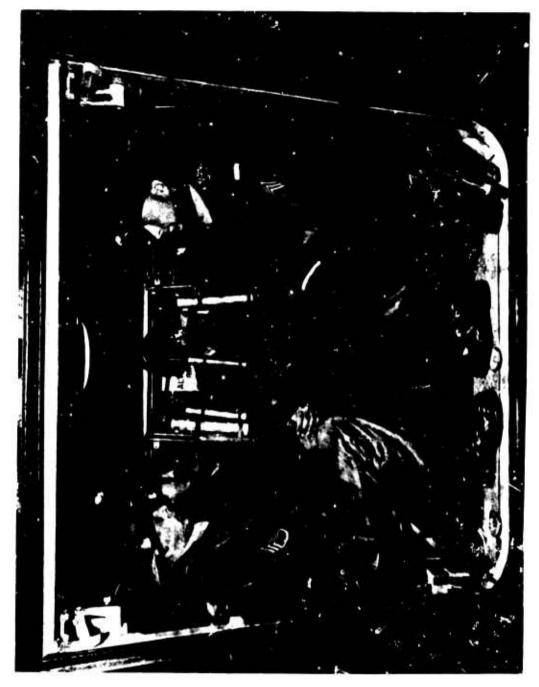


FIGURE C-9

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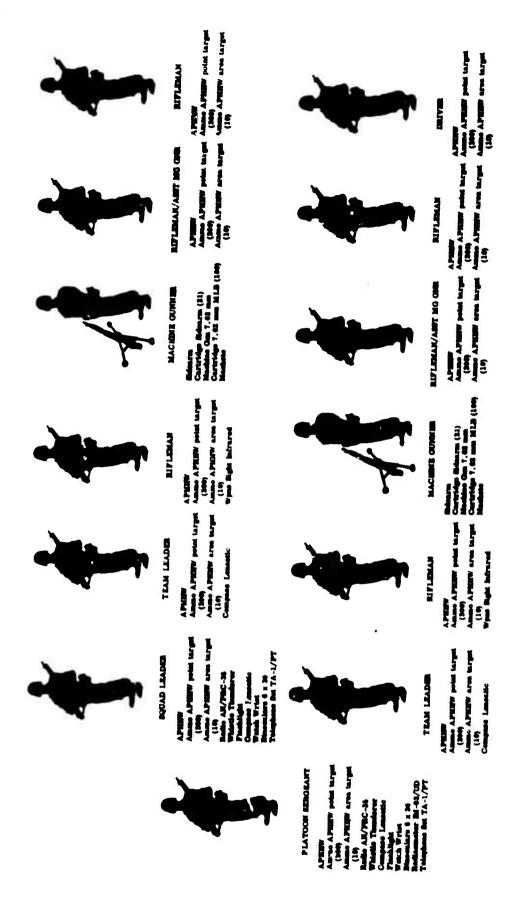


FIGURE C-10

4TH RIFLE SQUAD CARRIER PERSONNEL WITH THEIR ADDITIONAL* EQUIPMENT

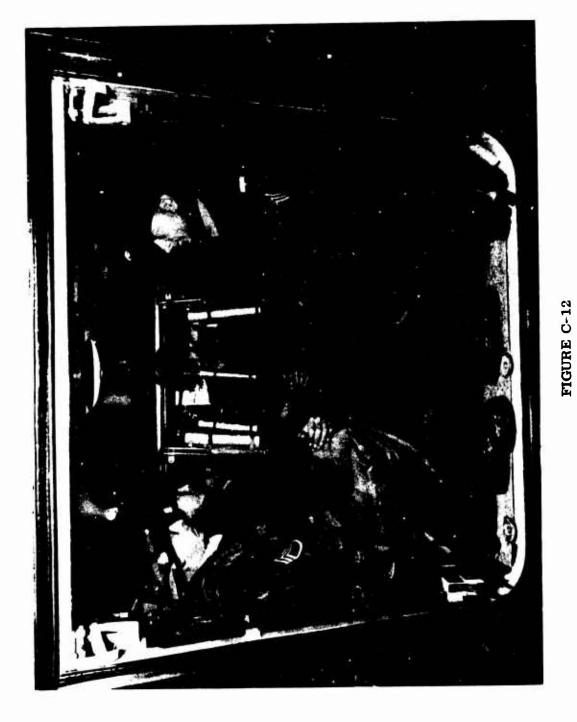
*Items of equipment common to all rifle plateon personnel are listed in Table C-1, p 105.



FIGURE C-11

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INTERIOR VIEW - 4TH RIFLE SQUAD CARRIER

APPENDIX to ANNEX C

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TABLE C-1 EQUIPMENT COMMON TO ALL RIFLE PLATOON PERSONNEL*

1. Fighting Load

- a. Load Carrying Group
 - (1) Belt, pistol
 - (2) Suspenders, pack, field
 - (3) Case, first aid packet, w/packet
 - (4) Pouch, small arms, ammo (2)
 - (5) Carrier, intrenching tool, w/tool
 - (6) Cover, canteen, w/canteen and cup
 - (7) Bayonet knife, w/scabbard
 - (8) Grenade, hand, fragmentation (2)
 - (9) Digger, foxhole
- b. Clothing
 - (1) All-purpose integrated outer garment
 - (2) Undershirt
 - (3) Drawers
 - (4) Socks
 - (5) Helmet, steel, w/liner
 - (6) Boots, combat

2. Existence Load

- a. Pack, field, combat
- b. Ration, combat, individual (1/3)
- c. Armor, body, fragment protection
- d. Armor, eye
- e. Mask, protective, field
- f. Poncho, lightweight, O D
- g. Gloves, shell, leather, w/inserts

3. Full Field Load

- a. Extra Clothing
 - (1) Undershirt
 - (2) Drawers
 - (3) Socks
- b. Sleeping bag, comforter, w/carrier
- c. Tent, shelter half, w/pins and poles
- d. Toilet articles
- e. Morale Kit
- * Additional items peculiar to personnel in different positions are shown in Figures C-1, p 90; C-4, p 94; C-7, p 98; and C-10, p 102.

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ON-CARRIER EQUIPMENT LIST 1ST RIFLE SQUAD CARRIER

1			
1.	Co	mmunications Equipment	
1	a.		
	b.	Control Group, AN/GRA-39	
ĺ	c.	Reel Equipment, CE 11 w/wire	
2.	Am	munition	
	a.	APHHW, point target	(4800)
l		APHHW, area target	(216)
		Cartridge, sidearm	(50)
	d.	Cartridge, cal50	(800)
}		Cartridge, 7.62mm MLB	(4000)
į	f.	Grenade, hand, fragmentation	(25)
	g.	Digger, foxhole	(25)
	h.	Launcher, rocket, 66mm, M72	(10)
	i.	Mine, Claymore, anti-personnel, M	M18 (6)
3.	Ado	ditional Equipment	
	a.		(2)
]	b.	•	
		5500 BTU	' (2)
	c.	Life Preserver, yoke, gas or oral	/1.4\
		inflation w/gas cylinder	(14)
1	d.	Can, water, military, 5-gallon	(6)
	e.	Meal, quick-serve, 6-man	(12 cases)
1	f.	Ration, combat, individual	(2 cases &
			2/3 ration)
1	g.	Batteries, radio	(4)
		Radiacmeter, IM-108/PD	(1)
	i.	Tripod, machine gun	(2)
	i.	Tripod, machine gun	(2)

APPENDIX to ANNEX C

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ON-CARRIER EQUIPMENT LIST 2D RIFLE SQUAD CARRIER

1.	Co	mmunications Equipment		
		Radio Set, AN/VRC 12		
ŀ				
2.	Am	munition		
	a.	A"HHW, point target	(4800)	
	b.		(216)	
ł	c.	Cartridge, sidearm	(50)	
ļ	d.	Cartridge, cal50	(800)	
į	e.	Cartridge, 7.62 MLB	(4000)	
ł	f.	Grenade, hand, fragmentation	(25)	
ļ	g.	Digger, foxhole	(25)	
		Launcher, rocket, 66mm, M72	(10)	
	i.	Mine, Claymore, anti-personnel, I	M18 (6)	
3.	Add	ditional Equipment		
	a.	Cookset, field	(2)	
	b.	Stove, gasoline burner, one burner 5500 BTU		
	c.	Life Preserver, yoke, gas or oral inflation w/gas cylinder	(14)	
	d.	Can, water, military, 5-gallon	(6)	
Ì	e.	Meal, quick-serve, 6-man	(12 cases)	
	f.	Ration, combat, individual	(2 cases &	
			2/3 ration)	
	g.	Batteries, radio	(6)	
	h.	Tripod, machine gun	(2)	

ON-CARRIER EQUIPMENT LIST 3D RIFLE SQUAD CARRIER

Co	mmunication Equipment	
a.	Radio Set, AN/VRC-12	
. Ar	nmunition	
a.	APHHW, point target	(4800)
b.	APHHW, area target	(240)
c.	Cartridge, sidearm	(50)
	Cartridge, cal .50	(800)
	Cartridge, 7.62mm MLB	(4000)
f.		(25)
	Digger, foxhole	(25)
þ.	Launcher, rocket, 66mm, M72	(10)
i	Mine, Claymore, anti-personne	1.
	M18	(6)
. Ac	ditional Equipment	
	Cookset, field	(2)
b.		mer,
٥.	5500 BTU	(2)
_	Life Preserver, yoke, gas or o	• •
C,	inflation w/gas cylinder	(14)
d.	Can, water, military, 5-gallon	(6)
e.	Mesl guick-serve, 6-man	(12 cases)
f.		(2 cases & 2/3 ration)
	Batteries, radio	(4)
þ.	Tripods, machine guns	(2)

ON-CARRIER EQUIPMENT LIST 4TH RIFLE SQUAD CARRIER

	ommunications	
	. Radio Set, AN/VRC-12	
р	. Wire, WD-1/TT MX306	
. A	mmunition	
a	. APHHW, point target	(4 800)
b	. APHHW, area target	(240)
c	. Cartridge, sidearm	(50)
d	. Cartridge, cal .50	(800)
е	. Cartridge, 7.62mm MLB	(4000)
f.	Grenade, hand, fragmentation	(25)
g	. Digger, foxhole	(25)
h	. Launcher, rocket, 66mm, M72	(10)
i.	Mine, Claymore, anti-personnel	
	M18	(6)
. A	dditional Equipment	
а	. Cookset, field	(2)
b	. Life Preserver, yoke, gas or or	al
	inflation w/gas cylinder	(14)
C	Stove, gasoline burner, one burn 5500 BTU	ner, (2)
d		(6)
	. Meal, quick-serve, 6-man	(12 cases)
f.		(2 cases &2/3 ration)
g		(4)
h		(2)

TABLE C-6
WEIGHT DISTRIBUTION

1ST RIFLE SQUAD CARRIER

QTY	UNIT	ITEM	UNIT WEIGHT	RIGHT SIDE	LEFT SIDE
12	Case	Meal, quick-serve, 6-man	9,5	95	19
2-1/	6 Case	Ration, combat, individual	25	50	5
1	Case	Digger, foxhole	25	25	
1	Case	Grenade, hand, fragmentation	57.8	57.8	1
1	Case	Mine, Claymore, anti-personne	1,	1	ł
		M18	18	18	
20	Box	Cartridge, 7.62mm, MLB (A12)			340
1	Box	Cartridge, sidearm	3*	Į	3*
7	Box	Cartridge, cal .50	37	74	185
4	Box	Ammunition, APHHW, point			
		target	25*	100*	1
3	Box	Ammunition, APHHW, area			
_		target	58*	135*	39*
10	Each	Launcher, rocket, 66mm, M72	4.5	18	27
2	Each	Stove, gasoline burner, one		_	
		burner, 5500 BTU	3		6
2	Each	Cookset, field	2		4
6	Each	Can, water, military, 5-gal	50	200	100
4	Each	Battery, radio	2*	8*	
14	Each	Life Preserver, yoke, oral or			
		gas inflation, w/gas cylinder	4.5	63	
1	Each	Mount, radio	58*		58*
1	Each	Radio, AN/VRC-12	137*		137*
1	Each	Control Group, AN/GRA-39	28*		28*
1	Each	Reel equipment, CE 11, w/wire	18	Γ.	18
1	Each	Radiacmeter, IM-108/PD	4		4
		CARGO WEIGHT EACH SIDE TOTAL CARGO WEIGHT		843.8	973.0 1,816.8

^{*}Estimated

TABLE C-7

WEIGHT DISTRIBUTION 2D RIFLE SQUAD CARRIER

QTY	UNIT	ITEM	UNIT WEIGHT	RIGHT SIDE	LEFT SIDE
10	0	Maal anish same C man	0.5	05	10
12	Case	Meal, quick-serve, 6-man	9.5	95	19
1 .	6 Case	Ration, combat, individual	25	50	5
1 1	Case	Digger, foxhole	25	25	
1	Case	Grenade, hand, fragmentation	57. 8	57.8	
i	Case	Mine, Claymore, anti-personnel			1
		M18	18	18	
20	Box	Cartridge, 7.62mm, MLB (A127		17	340
1	Box	Cartridge, sidearm	3*		3*
7	Box	Cartridge, cal .50	37	74	185
4	Box	Ammunition, APHHW, point target	25*	100*	
3	Box	Ammunition, APHHW, area	20	100	
	Dox	target	58*	135*	39*
10	Each	Launcher, rocket, 66mm, M72	4.5	18	27
2	Each	Stove, gasoline burner, one			
		burner, 5500 BTU	3		6
2	Each	Cookset, field	2		4
6	Each	Can, water, military, 5-gal	50	200	100
4	Each	Battery, radio	2*	8*	
2	Each	Battery, radio	4*	8*	
14	Each	Life Preserver, yoke, gas or			
		oral inflation, w/gas cylinder	4.5	63	
1 1	Each	Mount, radio	58*		58*
1	Each	· · · · · · · · · · · · · · · · · · ·	137		137*
		CARGO WEIGHT EACH SIDE TOTAL CARGO WEIGHT		851,8	923.0 1,774.8

^{*}Estimated

TABLE C-8

WEIGHT DISTRIBUTION 3D RIFLE SQUAD CARRIER

QTY	UNIT	ITEM	UNIT WEIGHT	RIGHT SIDE	LEFT SIDE
12	Case	Meal, quick-serve, 6-men	9.5	95	19
2-1/6 Case		Ration, combat, individual	25	50	5
1	Case	Digger, foxhole	25	25	
1	Case	Grenade, hand, fragmentation	57.8	57.8	
	Case	Mine, Claymore, anti-personnel	,		
		M18	18	18	
∠0	Box	Cartridge, 7.62mm, MLB (A127) 17		340
1	Box	Cartridge, sidearm	3*	_	3*
7	Box	Cartridge, cal .50	37	74	185
4	Box	Ammunition, APHHW, point target	25*	100*	
3	Box	Ammunition, APHHW, area		-	
		target	584	135*	39*
10	Each	Launcher, rocket, 66mm, M72	4.5	18	27
2	Each	Stove, gasoline burner, one burner, 5500 BTU	3	1	6
2	Each	Cookset, field	2		4
6	Each	Can, water, military, 5-gal	50	200	100
4	Each	Battery, radio	2*	8*	
14	Each	Life Preserver, yoke, gas or			
		oral inflation, w/gas cylinder	4.5	63	
1 i	Each	Mount, radio	58≒		58*
1	Each	Radio, AN/VRC-12	137*		137*
		CARGO WEIGHT EACH SIDE TOTAL CARGO WEIGHT		843.8	923.0 1,766.8

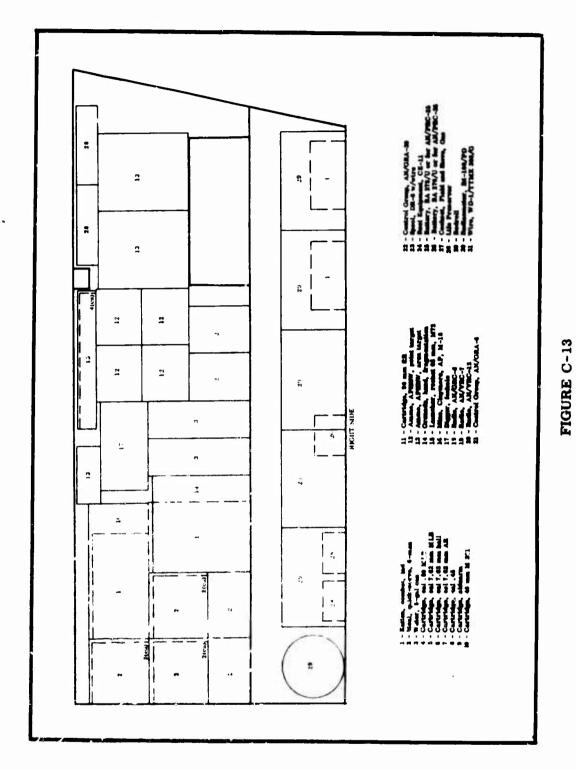
^{*}Estimated

TABLE C-9

WEIGHT DISTRIBUTION 4TH RIFLE SQUAD CARRIER

QTY	UNIT	ITEM	UNIT WEIGHT	RIGHT SIDE	LEFT
12	Case	Meal, quick-serve, 6-man	9.5	95	19
2-1/6 Case		Ration, combat, individual	25	50	5
1	Case	Digger, foxhole	25	25	1
1	Case	Grenade, hand, fragmentation	57.8	57.8	ŀ
1	Case	Mine, Claymore, anti-personne			
		M18	18	18	
20	Box	Cartridge, 7.62mm, MLB (A12	7) 17		340
1	Box	Cartridge, sidearm	3*		3*
7	Box	Cartridge, cal .50	37	74	185
4	Box	Ammunition, APHHW, point	j		
		target	25*	100*	
3	Box	Ammunition, APHHW, area			
		target	58*	135*	39*
10	Each	Launcher, rocket, 66mm, M72	4.5		27
2	Each	Stove, gasoline burner, one			
		burner, 5500 BTU	3		6
2	Each	Cookset, field	2		4
6	Each	Can, water, military, 5-gal	50	200	100
4	Each	Battery, radio	2*	8•	1
14	Each	Life Preserver, yoke, gas or			
		oral inflation, w/gas cylinder	4.5	63	
1	Each	Mount, radio	58*		58*
1	Each	Radio, AN/VRC-12	137*		137*
1	Each	Wire, WD-1/TT MX306	25		25
		CARGO WEIGHT EACH SIDE TOTAL CARGO WEIGHT		843.9	948.0 1,791.8

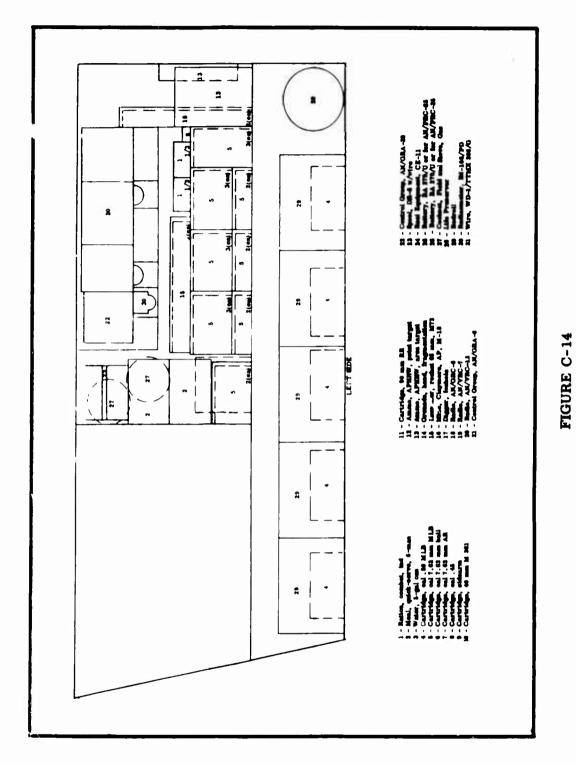
^{*}Estimated



LOADING DIAGRAM - 1ST RIFLE SQUAD CARRIER

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LOADING DIAGRAM - 1ST RIFLE SQUAD CARRIER

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APPENDIX to ANNEX C

Line Location on Vehicle	is man. Four are leaded above the case of forbide diagners and the cases of Ammunistics. APRING point larger on the right sponses. Four are leaded to the 7-48 mm manuscribing but the radio manuscribing the left.	oponen. Two are shading upright between the 7.43 mm ammunition and the box of ammunition APRITY area target on the left sponson.	a con- Lashed alongside each other on top weach of the Ammention, APRING, are target on the right sepandon. Extra His procedures are leaded under the	ij	ă i	al .30. Pive are lashed maker the lest seals. Two are lashed is the rear of the carrier under the right seals. Lashed is the center of the earrier under the right seats.	Lashed to the Ammunition, 7.62 mm next to the Lauschers, rocket, 66 mm, M72 on the left appraison. Hit bedrolls are placed under the right seats and six bedrolls are placed under the left seats. The placed under the left seats. The placed under the left seats.	_		on - Lasbed on top of Meni, Quick-Serve UR-0 sent to the gas tent on the left appearen.
Bumber of Containers and Tone	10 Lauschers, Rocket, 66 man M 72		2 cases of life proservers con- Laining six life proservers each and two cutrs.	2 contests, field with stove gasoline inserted in container.	20 bette of seminatition 7, 42 tem for Machine Cure. Each box has 200 rounds.	Thoras of ammuniton cal. 30. Each hox ha s 100 rounds Batteries, rutto	i bus of Ammentitum, Sidharm 13 bedroile	2 Tripoda, machine gan M60 Radiacuster, Di-196/PD	Centrol Group AM/GRA 28	Rest Equipment, CE11 con- taining TS-10 and Speel DR-0 with wire
Lecation on Vehicle	Four case are mounted on the reur and outside. Two case are lashed on the right aposeous between the case of hand gronadus and the case of Meni, Quick-Bervo.	Dight oness are leaded on the right squason sent to the engine compart-ment. Two cases are lasked between the case, water and the bestern box cover on the right sponson. Two	cases are lashed on the left sponeon above the 7.62 mm ammunition next to the gas tank.	One case is lasted on the right span- son shows the cases of Meal, Galde- Serve and in rear of the case of misses, and personnel. One case is not become the case of Meal	Quick-Berry and case, cater; and in rear of the case of hand governmen on the right sponson. The shirts ration is lashed above the animum sit- ton. 7 82 mm sent to the Launchers, recker, 86 mm, MT2 on the left.	sposeon. Lashed above cases of Meal, Quick- Serve and in front of the case of Individual Combet Rations on the right spurson.	Lashed on the right surmages is frost of the case of ladividual Combat Matters and between the case of Most, Quicti-terre and the valer case. Lashed on top of the water case on the right sponsor.	Two large bones are beind on the right sponson on top of the belianty but cover. One small box is beaution top of the case of headon degrees	and between the coast of many in performed and Lampdoor. Treate, of man, MTZ on the right species. The small bone are based on the Lambdoor rought, of man, MTZ on the forestern rought, of man, MTZ on the forestern of the farth of the man are based to the farth of the man are based to farth of the man are performed to farth of the man are performed to the	Labord on top of the cases of Meet, Quick-librys and between the case of fembrie diggers and large has of Ammendian, APHOT are large.
Samper of Contabacts and Trpe	6 five-gal water case	13 cases of Meni, Goods-April		3 cases of individual Combas Rations and 3/3 ration.		I case mises containing six M16 Claymore mises.	I case of hand greated on- taining twenty-five grenades, fragmentation. I case of fosibole diggers c-s- taining twenty-five fosibole	S bosse of American A PHIM as target. The bosse containing 72 rounds each. Three boxes con- taining 24 rounds each.		4 bases of Americation A PHHV point tary 1. Each box hea 1300 remme.

STOWAGE AND TYPE CONTAINERS - 1ST RIFLE SQUAD CARRIER

APPENDIX to ANNEX C

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FIGURE C-15

INTERIOR VIEW (CENTER) - 1ST RIFLE SQUAD CARRIER

APPENDIX to ANNEX C

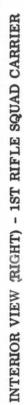




FIGURE C-16

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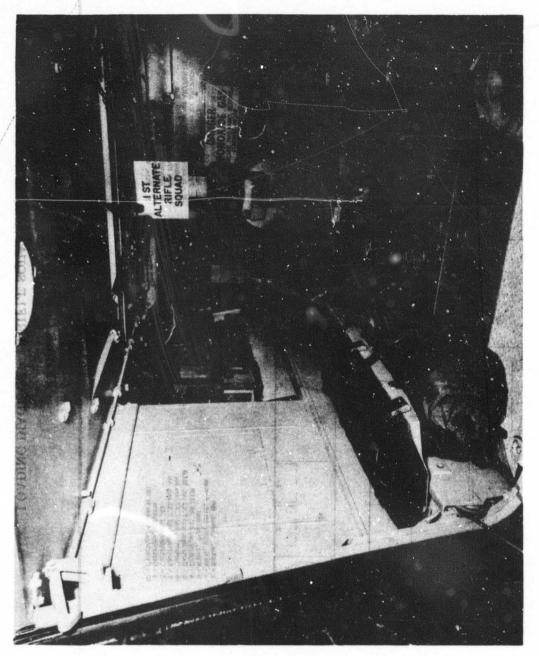
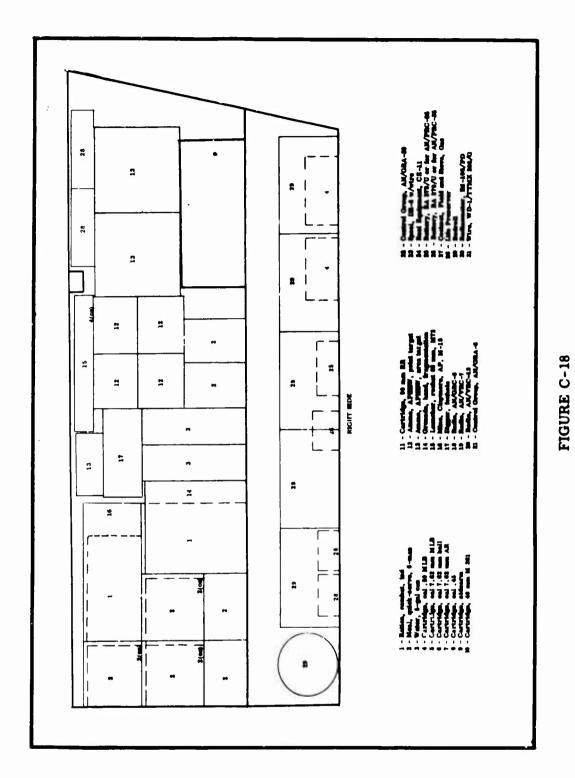


FIGURE C-17

INTERIOR VIEW (LEFT) - 1ST RIFLE SQUAD CARRIER

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APPENDIX to ANNEX C



LOADING DIAGRAM - 2D RIFLE SQUAD CARRIER

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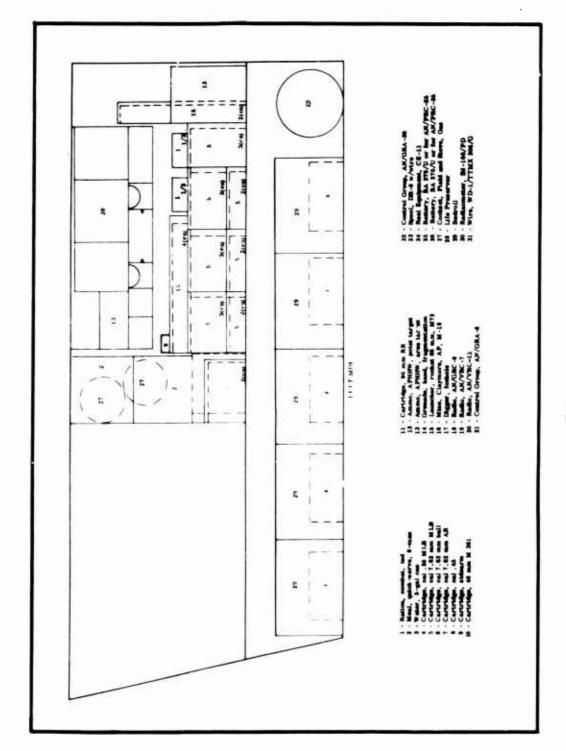


FIGURE C-19

LOADING DIAGRAM - 2D RIFLE SQUAD CARRIER

APPENDIX to ANNEX C

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2 cas e nve APPENDIX to ANNEX C

Number of Containers and Type	Location on Vehicle	Number of Containers and Type	Location on Vehicle
6 five-gal water cans	Four cans are mounted on the rear and outside. Two cans are labbed on the right sponson between the case of hand groundes and the case of Meal, Quick-Serve.	4 boxes of Ammunition APHHW point target. Each box has 1200 rounds.	Lashed on top of the cases of Meal, Quttle-Serve and between the case of foxhole diggers and large box of Ammunition, APHIW ares target on the right sponson.
12 cases of Meal, Quick - Serve	Eight ruses are lashed on the right sponson next to the engine compartment. Two cases are lashed between the cans, water and the battery box cover on the right sponson. Two cases are lashed on the left sponson above the 7.62 mm ammunition bext to the gas tank.	10 Launhoers, rocket, 66 mm, M72	Four are leabed above the case of forbole diggers and the cases of Ammunition, APHW, point target on the right sponson. Four are lashed to the 7.62 mm ammunition below the radio mount on the left sponson. Two are standing upright between the 7.62 mm ammunition and the property of the period of t
2 cases of Individual Combat Rations and 2/3 ration.	One case is lasted on the right apon- son above the cases of Meal, Quick- Berve and in rear of the case of mines, anti-personael. One case is lasted between the case of Meal, Quick- Serve and case, water, and in rear of the case of hand grenades on the right aponeon. Two-thirds ration is	2 cases of life preservers containing six life preservers each and two extra.	area target on the left sponson. Lashed alongside each other on top of the Ammunition, APHRW, area target on the right sponson. Extra life preservers are lashed under the right seats.
	ta lashed above the annualition. 7.62 mm next to the Launchers, rocket, 66 mm, M72 on the left sponson.	2 cooksets, field with stove, gasoline inserted in container.	Stoves and cooksets are lashed to the bulkhead behind the cases of Meal Quick-Serve next to gas tanks on the left sponson.
l case mines containing six M18 Claymore mines.	Lashed above cases of Meal, Quick- Serve and in front of the case of Individual Combat Rations on the right sponson.	20 boxes of ammunition 7.62 mm for Machine Guns. Each box has 200 rounds	Lashed to the deck of the left aponton.
l case of hand grenades containing twenty five grenades, fragmentation.	Lashed on the right sponson in front of the case of Individual Com- bat Rations and between the cases of Meal, Quick-Serve and the water cans.	Toxes of armunition cal .50. Each box has 100 rounds. Batteries, radio	Five are lashed under the left seats. Two are lashed in the rear of the carrier under the right seats. Lashed in the center of the carrier under the right seats.
I case of foxbole diggers containing twenty-five foxbole diggers.	Lashed on top of the water cans on the right sponson.	l box of Ammunition, Sidearm	Lushed to the Ammunition, 7.62 mm next to the launchers, rocket, 66 mm M72 on the left sponson.
5 boxes of Ammunition APHHW area target. Two boxes con- taining seventy-two rounds each. Three boxes containing twenty-four rounds each.	Two large boxes are lashed on the right sponson on top of the battery box cover. One small box is lashed on top of the case of fuxbole diggers and between the case of mines, antipersonnel and Launchers, rocket.	13 bedroils	Six bedrolls are placed under the right seats and six bedrolls are placed under the left seats. The thirteenth bedroll is placed under the driver's seat.
	66 mm, M72 on the right sponson. Two small boxes are lashed next to the Launchers, rocket, 66 mm, M72 on the forward edge of the left spon- son behind the driver.	2 Tripods, machine gun M-60	Lashed to the top and outside of carrier.

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FOR OFFICIAL USE ONLY

TABLE C-11

STOWAGE AND TYPE CONTAINERS - 2D RIFLE SQUAD CARRIER

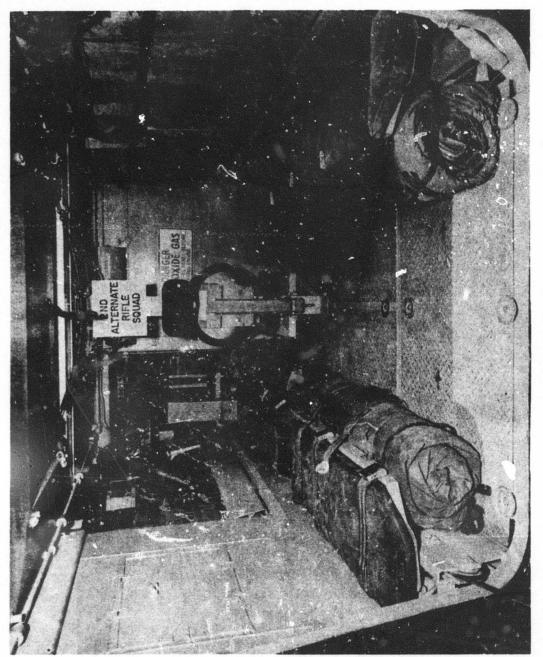


FIGURE C-20

INTERIOR VIEW (CENTER) - 2D RIFLE SQUAD CARRIER

Mary Comment

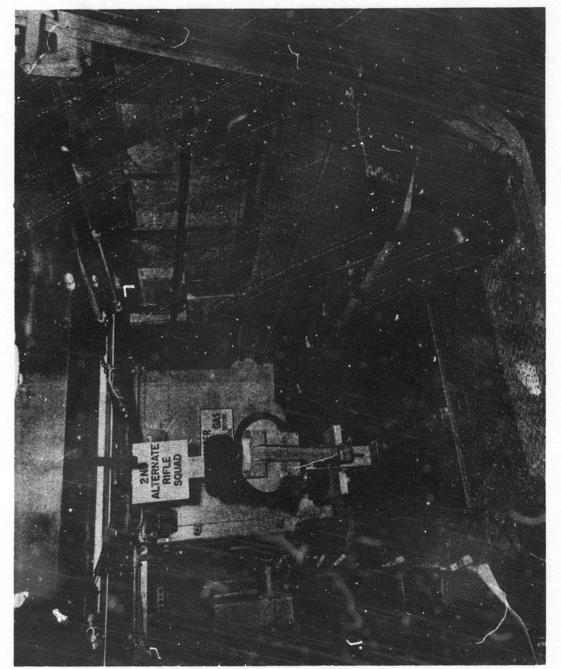


FIGURE C-21

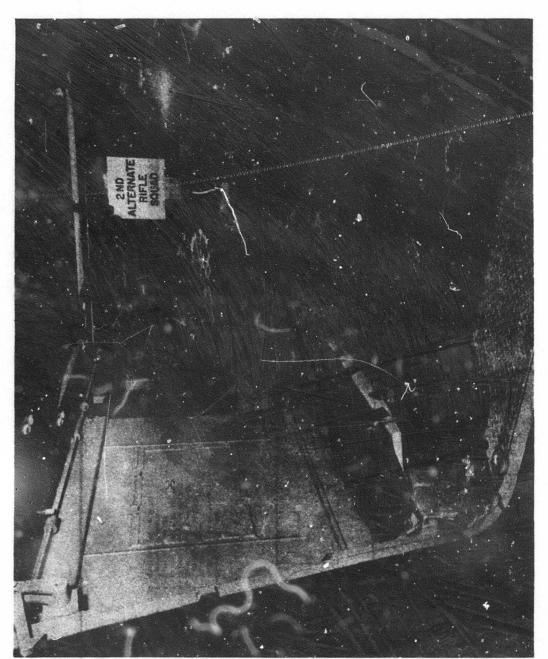


FIGURE C-22

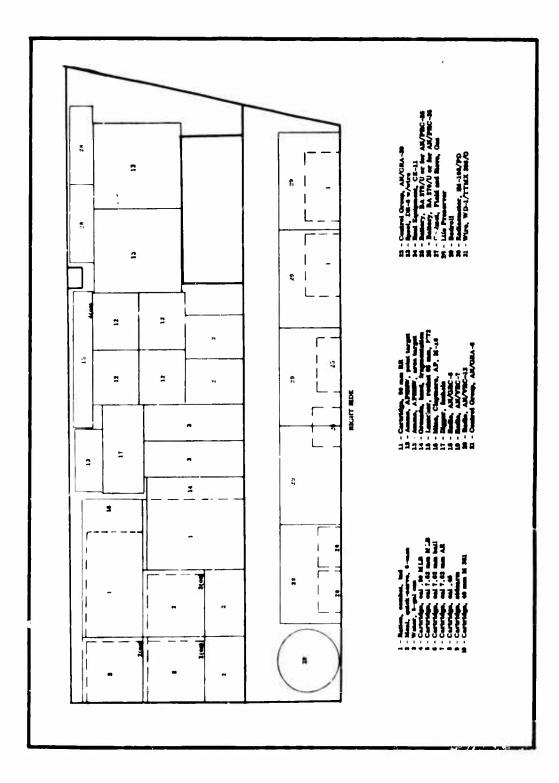


FIGURE C-23 LOADING DIAGRAM - 3D RIFLE SQUAD CARRIER

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FIGURE C-24
LOADING DIAGRAM - 3D RIFLE SQUAD CARRIER

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APPE

to ANNEX C

Number of Containers and Type	Location on Vahicie	Number of Containers and Type	Location on Vehicle
6 five-gal water cana	Four case are mounted on the rear and outside. Two case are lished on the right sponson between the case of hand grenades and the case of Mest, Quick-Serve.	4 boxes of Ammunition APHHW point target. Each box has 1300 rounds.	Lashed on top of the cases of Meal, Quick-Serve and between the case of foxhol diggers and large box of Ammunition, APHIW area target on the right sponson.
12 cases of Meal, Quick-Serve	Eight cases are lashed on the right sposson next to the engine compartment. Two cases are lashed between the case, water and the battery box cover on the right sponson. Two cases are lashed on the left sponson above the T.42 mm summittion next to the gas tank.	10 Launhoers, rocket, 66 mm, M72	Four are lashed shows the case of forbiol diggers and the cases of Ammunition, APHIW, point target on the right sponson. Four are lashed to the 7.62 mm ammunition below the radio mount on the left sponson. Two are standing upright sponson. Two are standing upright between the 7.62 mm ammunition between the 7.62 mm ammunition.
2 cases of individual Combet Rations and 2/3 ration.	One case is lashed on the right sponson above the cases of Meal, Quick-Serve and in rear of the case of misse, sail-personsel. One case is lashed between the case of Meal, Quick-Serve and cans, water, and in rear of the case of Mand greades on the right stronger. Truch the retine is	2 cases of life preservers con- taining six life preservers cach and two extra.	area target on the left sponson. Lashed alongside each other on top of the Ammentton, APHIW, area target on the right sponson. Extra life preservers are tashed under the right scats.
	is lashed above the ammuration, 7.62 mm next to the Launchers, rockes, 66 mm, M72 on the left spouson.	2 cocksets, field with stove, gasoline inserted in container.	Shoves and cooksets are leasted to the builthead behind the cases of Meal Quick-Serve next to gas tanks on the icit spunson.
l case mines containing six Mis Claymore mines.	Lashed above cases of Meal, Quick- Serve and in front of the case of Individual Combat Rations on the right sponson.	20 boxes of ammunition 7.62 mm for Machine Gans. Each box has 200 rounds	Lushed to the deck of the left sponton.
I case of hand grenades con- taining twenty-five grenades, fragmentation.	Lashed on the right sponson in front of the case of individual Com- bail Rations and between the cases of Meal, Quick-Serve and the water case.	Each box has 100 rounds. Batteries, radio	where the carrier and the carrier of the currier under the fight seats. Lushod in the center of the carrier under the right seats.
I case of lothole diggers con- taining tweety-five loxhole diggers.	Lashed on top of the water cans on the right sponson.	I box of Ann.witton, Sidearm	Lushed to the Ammunition, 7.62 mm next to the launchors, rocket, 66 mm M72 on the left spunson.
5 boxes of Ammunition A PHHW tree target. Two boxes con- taining seventy two rounds each. Three boxes containing result -four rounds each.	Two large boxes are leabed on the right sposeon on top of the battery box cover. One small box is lashed on top of the case of loxhole diggers and between the case of mines, anti-	13 bedruits	Six bodrolls are placed under the right seats and six bodrolls are placed under the left seats. The thirteenth bedroll is placed under the driver's seat.
	personnel and Lamchers, rocket, 66 mm, M72 on the right appeason. Two small boxes are lashed next to the Lamchers, rocket 62 mm, M72	2 Tripods, machine gun M-60	Lashed to the top and outside of carrier.

TABLE C-12

STOWAGE AND TYPE CONTAINERS - 3D RIFLE SQUAD CARRIER



FIGURE C-25

INTERIOR VIEW (CENTER) - 3D RIFLE SQUAD CARRIER



FIGURE C-26

INTERIOR VIEW (RIGHT) - 3D RIFLE SQUAD CARRIER

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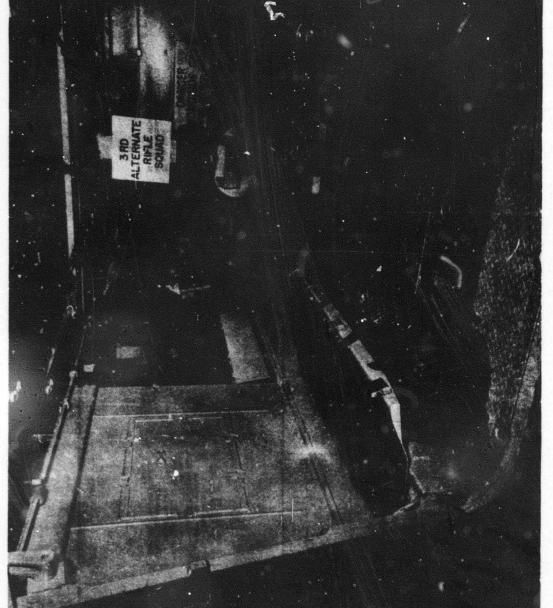
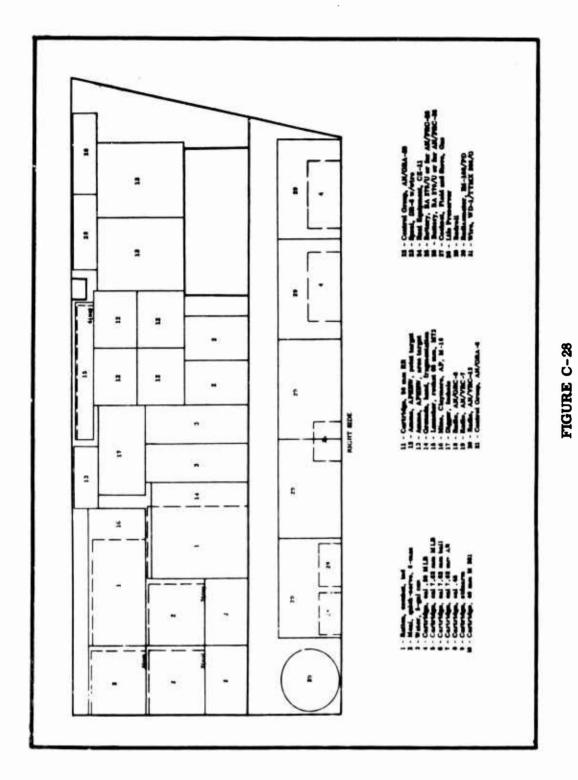


FIGURE C-27

INTERIOR VIEW (LEFT) - 3D RIFLE SQUAD CARRIER



LOADING DIAGRAM - 4TH RIFLE SQUAD CARRIER

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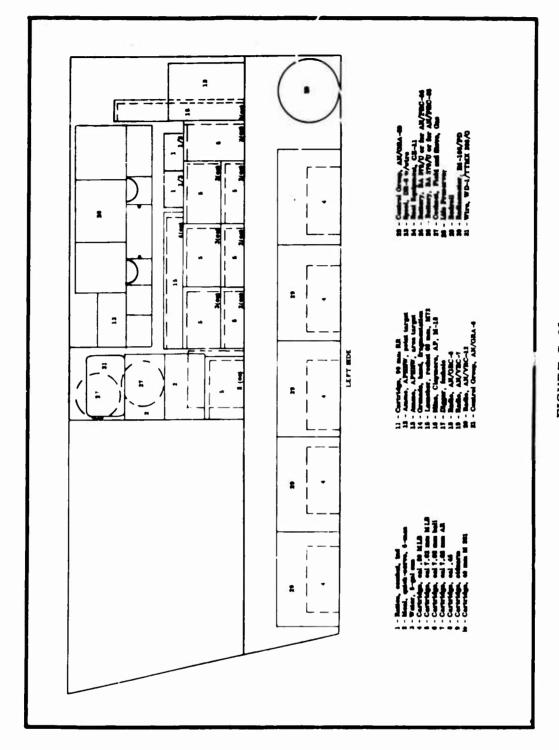


FIGURE C-29

LOADING DIAGRAM - 4TH RIFLE SQUAD CARRIER

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APPENDIX to ANNEX C

Number of Containers and True	Location on Vehicle	Number of Contains: s and Type	Location on Value
6 Ave-gal water cans	Four case are mounted on the rear and outside. Two case are lashed on the right sponson between the case of hand greendes and the case of Meal, Quick-Berre.	4 boxes of Ammunition, APHRW, point target. Each box containing 1300 rounds.	Four bosses are leaded on top of the oness of Meal, Quick-Serve and between the ones of femble diggers and larg; box of Amangation, APHIN, area target on the right spongon.
12 chees of Mest, Grids-Berre	Right cases are lashed on the right spouson sent to the engles compart-ment. Two cases are lashed between the case, water and the better but cover on the right spouson. Two cases are lashed on the left spouson above the 7.62 nm ammunition sent to the past task.	10 Launchers, rocket, 66 mm. M72	Four are lashed shows the case of fortheir diggers and the cases of Ammunical, APRIV, point target on the right spenson. Four are lashed to the 7.43 and ammunical spoint the radio mount on the left sponson. To our steading springle between the 7.43 and standing springle
2 cases of individual Combat Rations and 2/3 ratios.	One case is lashed on the right spon- son above the cases of Meal, Gatck- Berve and is rear of the case of mises, anti-perromes!. One case is lashed between the case of Meal, Quick-Serve and case, water; and in rear of the case of hand greandes on the right spon- son. Two-thirds ratios is shaked above the samountition, 7,62 mm next	2 cases of tife preservers con- taining six life preservers such and two extrs. 2 cooksets, field with stove	and the box of ammentition, Aprilliu, area target on the left sponson. Two oness are lashed alongside each other on two of the Ammentition, APRIN, area target on the right sponson. Beine life preservers are lashed under the right seats. Bernes and coolseets are lashed to the
l case mines containing six Mis Claymore mines.	on the left sponson. One case is lashed above cases of Meal, Grick-Serve and in front of the case of bactvidani Combet Rations on Je right sponson.	20 boxes of ammunition 7.62 mm for Machine Gans. Each box contents 200 resolutions.	Outside Desired the coses of Meal, Outside Barres sant to the gas teads on the left sponson. Trenty bosse are lashed to the dack of the left sponson.
I case of hand greates ocu- taking twenty-five greates, fragmentation.	One case is lashed on the right spon- son in frost of the case of instrydual Combat Rations and between the cases of Meal, Quick-Serve and the water cans.	7 boxes of ammunition cal .50. Each box contains 100 rounds.	Five boxes are lashed under the left seats. Two boxes are lashed in the rear of the carrier under the right seats.
l case of forbole diggers containing twenty-five forbole diggers.	One case is lashed on top of the cans, water on the right sponeon.	Batteries, Radio	Betteries are leabed to the owner of the carrier under the right needs.
s boxes of Ammunition, APHHW, area target. Two boxes containsant True boxes containsant and Three boxes containing 24 rounds each.	Two large boxes are lashed on the right sponson on top of the battery box cover. One small box is lashed on top of the case of foxincie diggers and between the case of mines, saft-personnel and Lannchers, rocket. 66 mm. MT2 on the right sponson. Two small boxes are lashed heart to	13 bedroils	One box to lastled to the Ammunition, 7, 62 mm sent to the Lamchers, rocket, 66 mm, M72 on the left sponson. But bedrolls are placed under the right sents and six bedrolls are placed under the placed under the left sents. The placed under the left sents.
	the Launchers, rocket, 66 mm, M72 on the forward edge of the left spon- son behind the driver.	2 Tripods, Machine Gun M60	Two tripode are leaded to the top and outside the carrier.

TABLE C-13

Wire is lasked in front of the cook-sets, field next to the gas task on the left sporson.

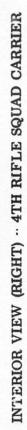
Wire, MX306

STOWAGE AND TYPE CONTAINERS -4TH RIFLE SQUAD CARRIER



FIGURE C-30

INTERIOR VIEW (CENTER) - 4TH RIFLE SQUAD CARRIER



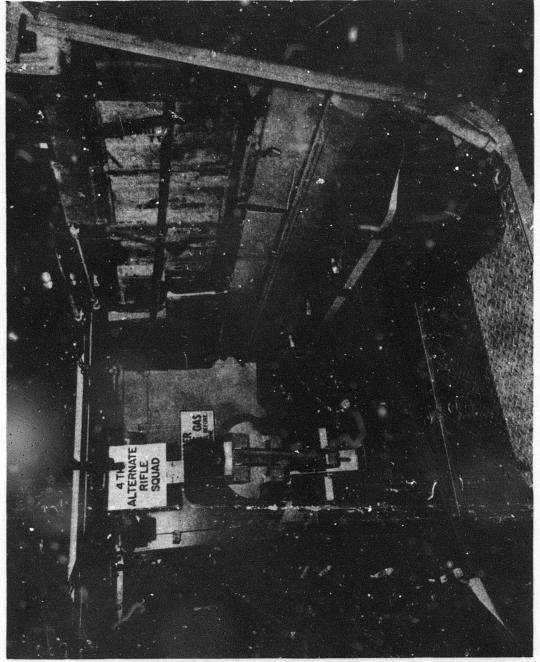
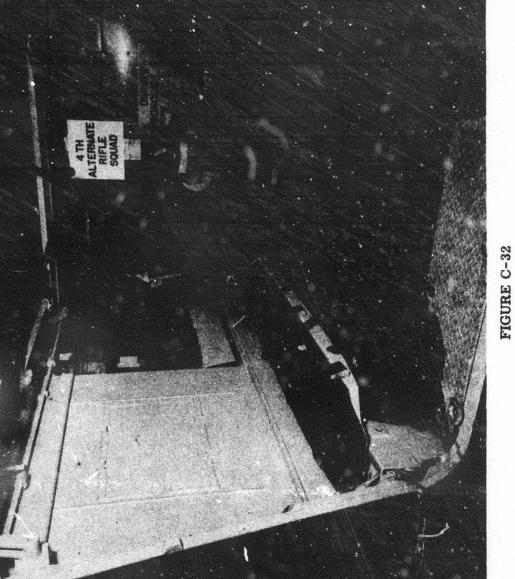


FIGURE C-31



INTERIOR VIEW (LEFT) - 4TH RIFLE SQUAD CARRIER

APPENDIX to ANNEX C

Annex D

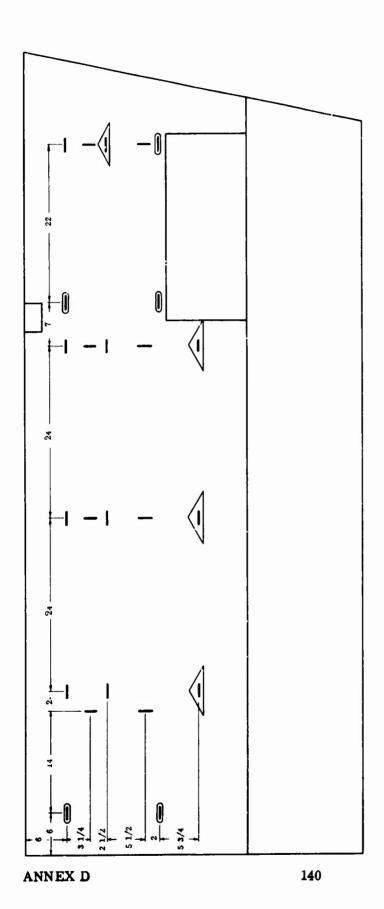
RECOMMENDED MODIFICATIONS TO THE M113 ARMORED PERSONNEL CARRIER

1. MODIFICATION OF TIE-DOWN LOOPS

- a. The installation of additional tie-down loops on the right and left sponsons, seat back rests and bulkheads, as shown in Figures D-1 through D-4, pp 140 through 143, would facilitate the securing of loads to be carried in the M113 APC.
- b. Four of the present tie-down loops, as shown in Figure D-1, p 140, are not required and should be eliminated.

2. MODIFICATION OF EXTERIOR BRACKETS FOR WATER CANS

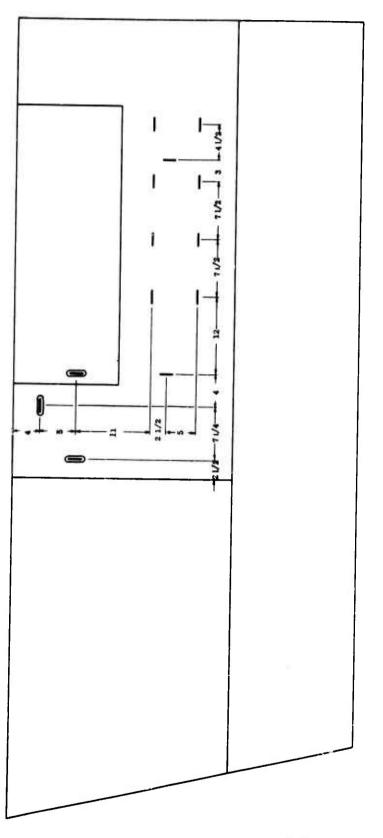
Approximately 25 gallons of water per day are required for a 12-man squad. By using the present brackets for 5-gallon water cans plus stowing cans inside the carrier, a little more than one day's supply could be carried. The modification of the exterior water can brackets, as shown in Figures D-5 through D-7, pp 144 through 146, will increase the amount of water carried by 10 gallons, which will allow the squad to operate for a longer period of time without resupply.





RECOMMENDED LOCATION OF TIE-DOWN LOOPS (RIGHT SIDE)

FIGURE D-1



- Tie down loops to be added

The down loops to be deleted

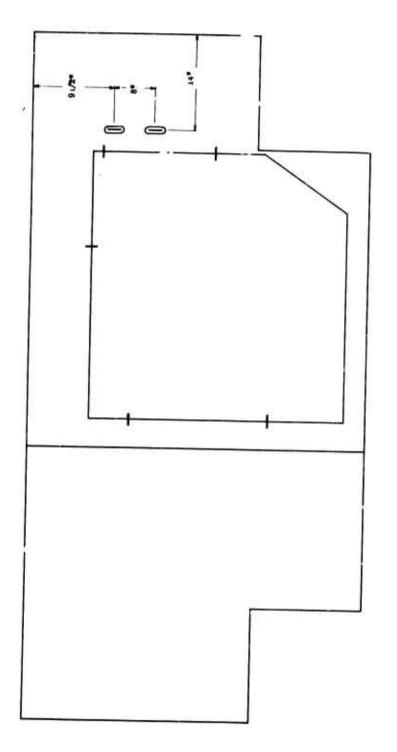
* Tie down loops to remain unchanged

FIGURE D-2

RECOMMENDED LOCATION OF TIE-DOWN LOOPS (LEFT SIDE)

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ANNEX D



= Tie down loops to be added

(1

■ Tie down loops to remain unchanged

FIGURE D-3

RECOMMENDED LOCATION OF TIE-DOWN LOOPS (FRONT BULKHEAD)

ANNEX D

142

RECOMMENDED LOCATION OF TIE-DOWN LOOP 'EAT BACK RESTS'

FIGURE D-4

RECOMMENDED LOCATION OF TE-DOWN LOOPE (LEFT SEAT BACK REST)

RECOMMENDED LOCATION OF TIE-DOWN LOOPS (RIGHT SEAT BACK REST)

- Tie down loops to be added

The down loop: to be deleted

The down loops to remain unchanged

ANNEX D

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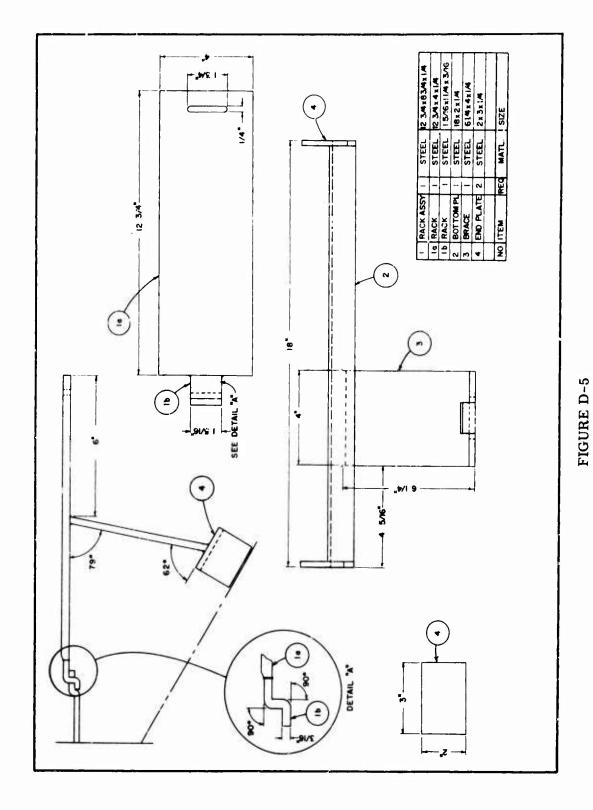


DIAGRAM OF WATER CAN BRACKET

ANNEX D

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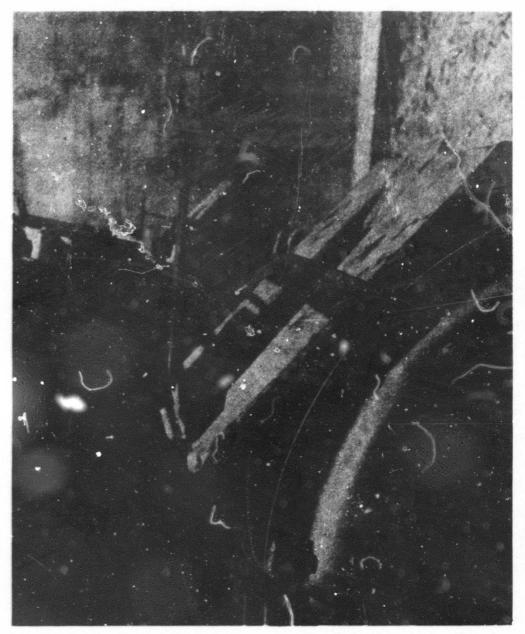


FIGURE D-6

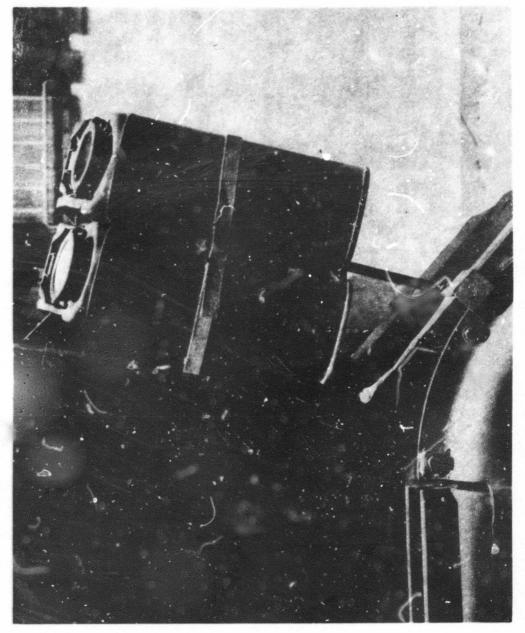


FIGURE D-7

LEFT SIDE VIEW OF WATER CANS ON BRACKET

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3 REPORT TITLE		<u>.L</u>						
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4 DESCRIPTIVE NOTES (Type of report and inclusive dates) Final Report								
5 AUTHOR(S) (Last name, first name, initial)								
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ROAD-65 mechanized rifle platoon Loading plans (M113 APC) Supply		;				
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