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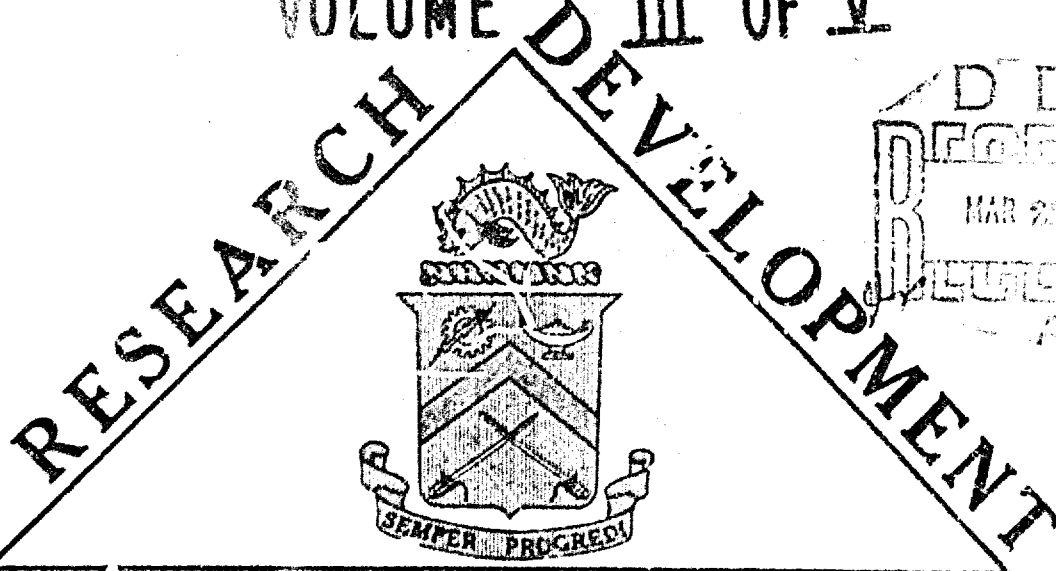
**TACTICAL MOBILITY STUDY FOR AMPHIBIOUS
ASSAULT AND POST-ASSAULT IN THE MID-
RANGE PERIOD (FY 1970-79)**

PROJECT NO. 30-68-08

FIRST INTERIM REPORT

JUN 1970 (U)

VOLUME III OF V



TEST & EVALUATION

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DEVELOPMENT CENTER

**MARINE CORPS DEVELOPMENT AND EDUCATION COMMAND
QUANTICO, VIRGINIA**

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ABSTRACT

The five volumes of this report present basic data for the Tactical Mobility Study. In general, these data define the operating characteristics of mobility and mobility support systems, the environments within which they will operate, and Marine Corps missions and concepts of operations.

Volume III provides the characteristics and performance data for ground vehicles considered by the Tactical Mobility Study. These vehicles have been created in various categories: general purpose vehicles, special purpose/equipment vehicles, logistic support trailers, high mobility vehicles, and amphibious vehicles.

Blank spaces have been left in this volume where information was not available. Upon receipt of such information an addendum to this report will be published.

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ANNEX F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)

1. (U) PURPOSE. This annex provides the characteristics of and performance data for vehicles considered by the Tactical Mobility Study Panel as candidates for mid-range mobility systems mixes.

2. (U) GENERAL

a. Vehicles. The vehicles presented in this annex are either currently available or likely to be available in the mid-range period. They are divided into five categories based on capability and mission. These vehicle categories are defined as: general purpose, special purpose/special equipment, logistical support trailers, high mobility and amphibious.

b. Cut-off. The data presented in the appendices are current as of 1 September 1969.

APPENDICES:

1. General Purpose Vehicles
2. Special Purpose/Special Equipment Vehicles
3. Logistical Support Trailers
4. High Mobility Vehicles
5. Amphibious Vehicles

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APPENDIX 1 (General Purpose Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)

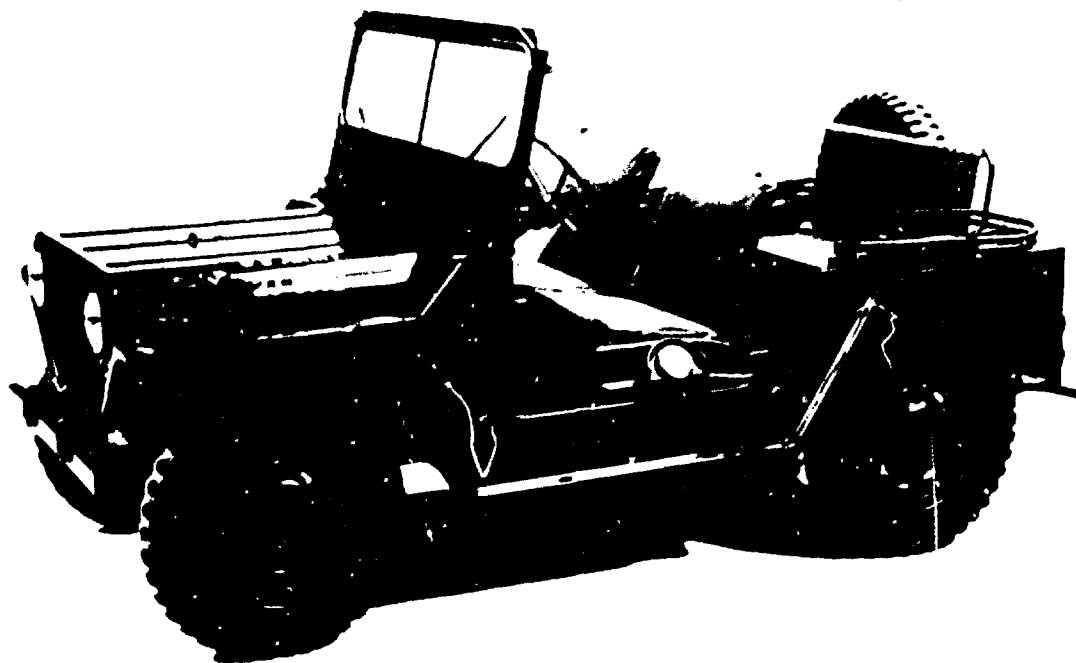
1. (U) PURPOSE. This appendix provides the characteristics of and performance data for general purpose vehicles.
2. (U) GENERAL. General purpose vehicles are designed to perform routine missions, operating on highway and cross-country surfaces.

TABS:

- A. Truck, Utility, 1/4 Ton, 4x4, M151A1
- B. Truck, Cargo, 1-1/4 Ton, 4x4, XM705
- C. Truck, Cargo, 1-1/4 Ton, 4x4, M715
- D. Truck, Cargo, 1-1/4 Ton, 4x4, Dodge Ram
- E. Truck, Cargo, 2-1/2 Ton, 6x6 M35A2C
- F. Truck, Cargo, 2-1/2 Ton, 6x6, M36A2C
- G. Truck, Cargo, 5 Ton, 6x6, M54A2C
- H. Truck, Cargo, 5 Ton, 6x6, M55A2
- I. Truck, Cargo, 5 Ton, 6x6, XM813A1
- J. Truck, Cargo, 10 Ton, 6x6, M125

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TAB A (Truck, Utility, 1/4 Ton, 4x4, M151A1) to Appendix 1 (General Purpose Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



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1. (U) GENERAL. The body and frame of this truck are integral all steel welded construction, providing space for four men and equipment including driver. Space is provided in and on the body for storage of normal OVE equipment. Four wheel drive is selected at the option of the driver. This vehicle is presently in the Marine Corp inventory and type classified Standard A.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	2,400 lbs
b. Payload	
(1) Highway	1,200 lbs
(2) Cross-country	800 lbs
c. Towed load allowed	
(1) Highway	2,000 lbs
(2) Cross-country	1,500 lbs
d. Dimensions	
(1) Length	132.7 in.
(2) Width	63 in.
(3) Height	71 in.
(4) Height, lowest operable	52.5 in.
(5) Wheel base	85.0 in.
(6) Tread C-C	53.0 in.
(7) Ground clearance	10.3 in.
e. Vehicle crew	1
f. Passengers, including crew	4

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g. Fuel

(1) Capacity	17.7 gal
(2) Type	Gas

h. Electrical system 24 volt

i. Engine 4 cyl, 71 hp

j. Transmission 4 speed

k. Transfer 1 speed

l. Axles 2

m. Wheels 4 & spare

n. Tires

(1) Size	7.00 x 16
(2) Tread design	NDCC

o. Ground pressure

p. Shipping dimensions 59 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius 18.52 ft

b. Speed (max permissible) 66 mph

c. Fuel consumption 19.1 mpg

d. Cruising range (highway w/o towed load) 300 miles

e. Fording depth

(1) W/o kit	21 in.
(2) W/kit	60 in.

f. Gradeability

(1) Forward slope	60%
(2) Side slope	30%

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- g. Angle of approach
- h. Angle of departure
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

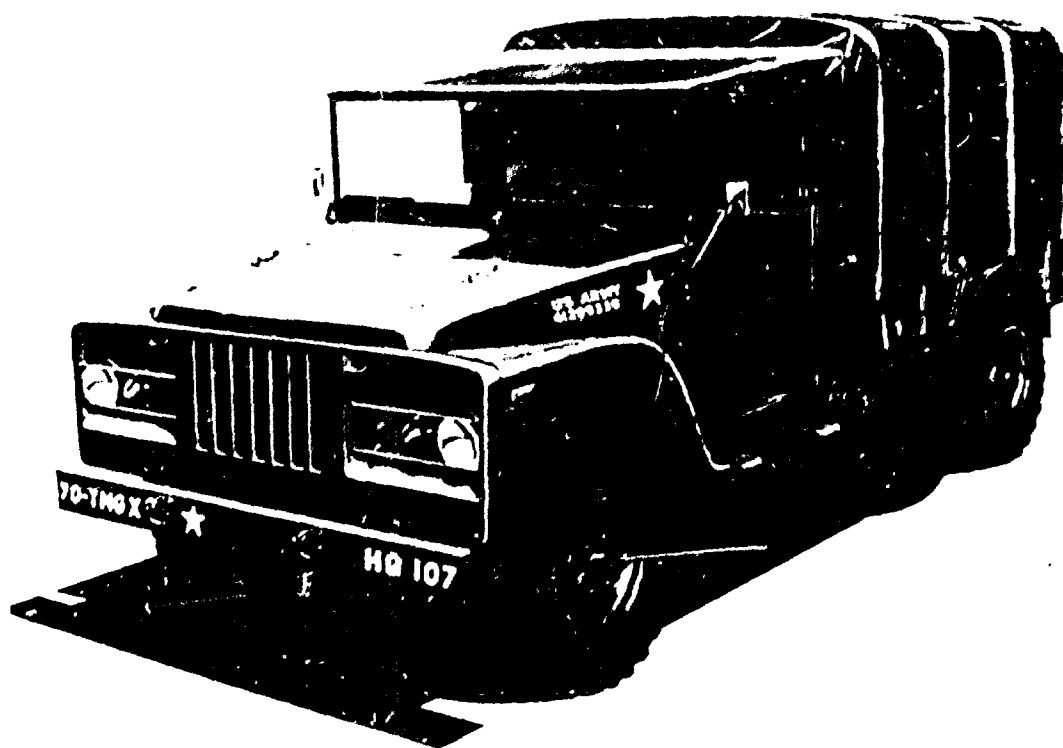
66°

37°

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TAB B (Truck, Cargo, 1-1/4 Ton, 4x4, XM705) to Appendix 1 (General Purpose Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



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1. (U) GENERAL. This vehicle is in the developmental stage as a replacement for the M37, 3/4 ton cargo truck. It is being considered for procurement by the Marine Corps.

2. (U) VEHICLE CHARACTERISTICS

- | | |
|-----------------------------|-----------|
| a. Net weight | 6,000 lbs |
| b. Payload | |
| (1) Highway | 2,500 lbs |
| (2) Cross-country | |
| c. Towed load allowed | |
| (1) Highway | 3,000 lbs |
| (2) Cross-country | |
| d. Dimensions | |
| (1) Length | 199 in. |
| (2) Width | 84 in. |
| (3) Height | 96 in. |
| (4) Height, lowest operable | 72 in. |
| (5) Wheelbase | |
| (6) Tread C-C | |
| (a) Front wheels | |
| (b) Rear wheels | |
| (7) Ground clearance | 11.8 in. |
| (8) Cargo body | |
| (a) Length | 99 in. |
| (b) Width | 79.5 in. |

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- e. Vehicle crew 1
- f. Passengers, including crew
- g. Fuel
 - (1) Capacity 50 gal
 - (2) Type gas
- h. Electrical system 24 volt
- i. Engine
- j. Transmission
- k. Transfer
- l. Axles 2
- m. Wheels 4 & spare
- n. Tires
 - (1) Size
 - (2) Tread design
- o. Ground pressure
- p. Shipping dimensions
 - (1) W/winch
 - (2) W/o winch

3. (U) OPERATIONAL CHARACTERISTICS

- a. Turning radius 30 ft
- b. Speed (max permissible) 60 mph
- c. Fuel consumption 6 mpg
- d. Cruising range (highway w/o towed load) 300 miles

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- e. Fording depth
 - (1) W/o kit 20 in.
 - (2) W/kit 60 in.
- f. Gradeability
 - (1) Forward slope 60%
 - (2) Side slope 30%
- g. Angle of approach 60°
- h. Angle of departure 45°
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

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TAB C (Truck, Cargo, 1-1/4 Ton, 4x4, M715) to Appendix 1 (General Purpose Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



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1. (U) GENERAL. This truck was designed primarily as an "on-road" vehicle with limited cross-country capability. It is mainly used in rear areas. The truck has an operational life of 12,000 miles. This vehicle will be organic to MAW. It is type classified Limited Production.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

- | | |
|---------------|-----------|
| (1) W/winch | 6,000 lbs |
| (2) W/o winch | 5,500 lbs |

b. Payload

- | | |
|-------------------|-----------|
| (1) Highway | 3,000 lbs |
| (2) Cross-country | 2,500 lbs |

c. Towed load allowed

- | | |
|-------------------|-----------|
| (1) Highway | 4,450 lbs |
| (2) Cross-country | 4,200 lbs |

d. Dimensions

- | | |
|-----------------------------|-------------|
| (1) Length | |
| (a) W/winch | 220-3/4 in. |
| (b) W/o winch | 209-3/4 in. |
| (2) Width | 85 in. |
| (3) Height | 95 in. |
| (4) Height, lowest operable | 59 in. |
| (5) Wheelbase | 126 in. |
| (6) Tread C-C | 67 in. |
| (7) Ground clearance | 10 in. |

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(8) Cargo body	
(a) Length	92.5 in.
(b) Width	64 in.
(c) Area	36 sq ft
(d) Volume	
e. Vehicle crew	2
f. Passengers, including crew	14
g. Fuel	
(1) Capacity	28 gal
(2) Type	Gas
h. Electrical system	24 volt
i. Engine	6 cyl, 230 hp
j. Transmission	4 speed
k. Transfer	2 speed
l. Axles	2
m. Wheels	4 & spare
n. Tires	
(1) Size	9.00 x 16
(2) Tread design	NDCC
o. Ground pressure	
p. Shipping dimensions	
(1) W/winch	130 sq ft
(2) W/o winch	124 sq ft

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3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius	27-1/2 ft
b. Speed (max permissible)	55 mph
c. Fuel consumption	8 mpg
d. Cruising range (highway w/o towed load)	225 miles
e. Fording depth	
(1) W/o kit	30 in.
(2) W/kit	60 in.
f. Gradeability	
(1) Forward slope	60%
(2) Side slope	30%
g. Angle of approach	45°
h. Angle of departure	25°
i. Max vertical step climbing ability	
j. Vehicle mobility index	
k. Vehicle cone index	

F-1-C-4

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TAB D (Truck, Cargo, 1-1/4 Ton, 4x4, Dodge Ram) to Appendix 1 (General Purpose Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to the First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968)
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1. (U) GENERAL. This truck is presently not in the Marine Corps inventory nor has it been type classified by USATAC.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	5,400 lbs
b. Payload	
(1) Highway	4,000 lbs
(2) Cross-country	2,500 lbs
c. Towed load allowed	
(1) Highway	
(2) Cross-country	5,000 lbs
d. Dimensions	
(1) Length	172 in.
(2) Width	86 in.
(3) Height	97 in.
(4) Height, lowest operable	79 in.
(5) Wheelbase	108 in.
(6) Tread C-C	71 in.
(7) Ground clearance	
(a) Standard tires	13.5 in.
(b) High mobility tires	16.5 in.
(8) Cargo body	
(a) Length	98 in.
(b) Width	82 in.

F-1-D-2

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(c) Area	56 sq ft
(d) Volume	
e. Vehicle crew	2
f. Passengers, including crew	14
g. Fuel	
(1) Capacity	
(2) Type	Gas
h. Electrical system	
i. Engine	V8
j. Transmission	3 speed, automatic
k. Transfer	Single speed
l. Axles	2
m. Wheels	4
n. Tires	
(1) Size	
(a) Standard	9.00 x 20
(b) High mobility	16 x 20
(2) Tread design	MDCC
o. Ground pressure	
(1) Standard	10.7 psi
(2) High mobility	6.1 psi
p. Shipping dimensions	102.7 sq ft

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3. (U) OPERATIONAL CHARACTERISTICS

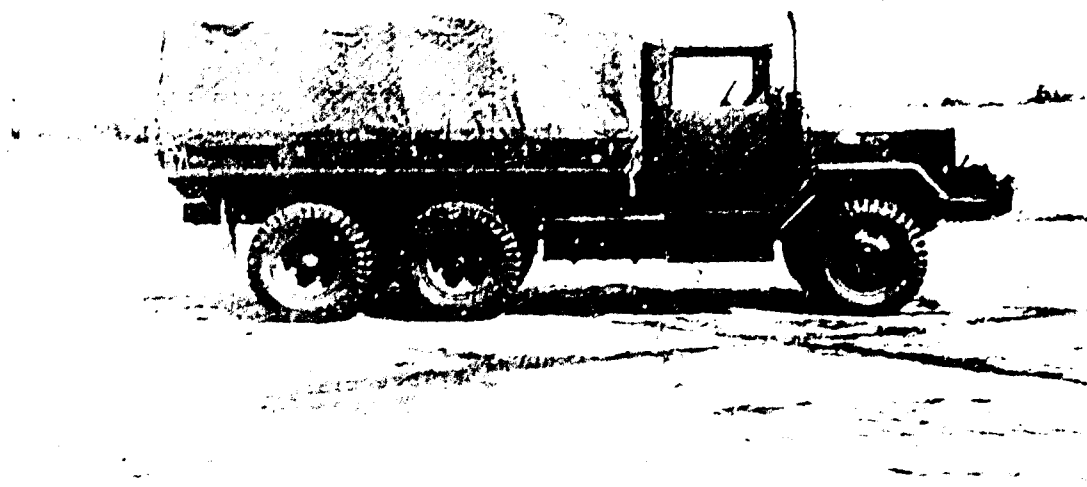
a. Turning radius	50 ft
b. Speed (max permissible)	55 mph
c. Fuel consumption	
d. Cruising range (highway w/o towed load)	307 miles
e. Fording	Swimmer
f. Gradeability	
(1) Forward slope	60%
(2) Side slope	30%
g. Angle of approach	79°
h. Angle of departure	52°
i. Max vertical step climbing ability	
j. Vehicle mobility index	
k. Vehicle cone index	

F-1-D-4

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TAB E (Truck, Cargo, 2-1/2 Ton, 6x6, M35A2C) to Appendix 1 (General Purpose Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



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1. (U) GENERAL. These trucks serve as prime movers for direct support artillery and as logistic support vehicles. The major difference between the vehicles is the dropsides on the A2C. Both vehicles are type classified Standard A and are presently in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

(1) M35A2C

(a) W/winch 14,160 lbs

(b) W/o winch 13,660 lbs

(2) M35A2

(a) W/winch 13,900 lbs

(b) W/o winch 13,400 lbs

b. Payload

(1) Highway 10,000 lbs

(2) Cross-country 5,000 lbs

c. Towed load allowed

(1) Highway 10,000 lbs

(2) Cross-country 6,000 lbs

d. Dimensions

(1) Length

(a) W/winch 278-1/4 in.

(b) W/o winch 264-1/4 in.

(2) Width 96 in.

(3) Height 114-11/16 in.

(4) Height, lowest operable 81 in.

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(5) Wheelbase	154 in.
(6) Tread C-C	
(a) Front wheels	67-3/4 in.
(b) Rear wheels	70 in.
(7) Ground clearance	12-1/2 in.
(8) Cargo body	
(a) Length	147 in.
(b) Width	88 in.
(c) Area	85 sq ft
(d) Volume	456 cu ft
e. Vehicle crew	2
f. Passengers, including crew	16
g. Fuel	
(1) Capacity	50 gal
(2) Type	Multi-fuel
h. Electrical system	24 volt
i. Engine	6 cyl, 140 hp
j. Transmission	5 speed
k. Transfer	2 speed
l. Axles	3
m. Wheels	10 & spare
n. Tires	
(1) Size	9.00 x 20
(2) Tread design	NDCC

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o. Ground pressure

p. Shipping dimensions

(1) W/winch

186 sq ft

(2) W/o winch

176 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius

(1) W/winch

35-1/2 ft

(2) W/o winch

34-1/2 ft

b. Speed (max permissible)

58 mph

c. Fuel consumption

(1) Gasoline

9.3 mpg

(2) Diesel

11.3 mpg

d. Cruising range (highway w/o towed load) 320 miles

e. Fording depth

(1) W/o kit

30 in.

(2) W/kit

72 in.

f. Gradeability

(1) Forward slope

60%

(2) Side slope

40 %

g. Angle of approach

(1) W/winch

38°

(2) W/o winch

48°

h. Angle of departure

44°

i. Max vertical step climbing ability

j. Vehicle mobility index

k. Vehicle cone index

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TAB F (Truck, Cargo, 2-1/2 Ton, 6x6, M36A2C) to Appendix 1 (General Purpose Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)

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1. (U) GENERAL. This truck is a long bed version of the M35A2.

This vehicle was designed for use in light antiaircraft missile battalions. It is in the Marine Corps inventory and was type classified Standard A.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

- | | |
|---------------|------------|
| (1) W/winch | 15,110 lbs |
| (2) W/o winch | 14,610 lbs |

b. Payload

- | | |
|-------------------|------------|
| (1) Highway | 10,000 lbs |
| (2) Cross-country | 5,000 lbs |

c. Towed load allowed

- | | |
|-------------------|------------|
| (1) Highway | 10,000 lbs |
| (2) Cross-country | 6,000 lbs |

d. Dimensions

- | | |
|-----------------------------|---------------|
| (1) Length | |
| (a) W/winch | 343-1/2 in. |
| (b) W/o winch | 329-1/2 in. |
| (2) Width | 96 in. |
| (3) Height | 125-11/16 in. |
| (4) Height, lowest operable | 81 in. |
| (5) Wheelbase | 190 in. |
| (6) Tread C-C | |
| (a) Front wheels | 67-3/4 in. |
| (b) Rear wheels | 70 in. |

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(7) Ground clearance	12-1/2 in.
(8) Cargo body	
(a) Length	210 in.
(b) Width	88 in.
(c) Area	120 sq ft
(d) Volume	630 cu ft
e. Vehicle crew	2
f. Passengers, including crew	*
g. Fuel	
(1) Capacity	50 gal
(2) Type	Multi-fuel
h. Electrical system	24 volt
i. Engine	6 cyl, 140 hp
j. Transmission	5 speed
k. Transfer	2 speed
l. Axles	3
m. Wheels	10 & spare
n. Tires	
(1) Size	9.00 x 12
(2) Tread design	NDCC
o. Ground pressure	
p. Shipping dimensions	
(1) W/winch	229 sq ft
(2) W/o winch	219 sq ft

* This vehicle is not equipped with troop seats in cargo bed.

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3. (U) OPERATIONAL CHARACTERISTICS

- | | |
|--|-----------|
| a. Turning radius | 45 ft |
| b. Speed (max permissible) | 56 mph |
| c. Fuel consumption | 6.4 mpg |
| d. Cruising range (highway w/o towed load) | 320 miles |
| e. Fording depth | |
| (1) W/o kit | 30 in. |
| (2) W/kit | 72 in. |
| f. Gradeability | |
| (1) Forward slope | 60% |
| (2) Side slope | 40% |
| g. Angle of approach | |
| (1) W/winch | 40° |
| (2) W/o winch | 48° |
| h. Angle of departure | 29° |
| i. Max vertical step climbing ability | |
| j. Vehicle mobility index | |
| k. Vehicle cone index | |

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TAB G (Truck, Cargo, 5 Ton, 6x6, M54A2C) to Appendix 1 (General Purpose Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)

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1. (U) GENERAL. These trucks are used not only to haul cargo and personnel, but also to tow artillery. The major difference between models is the drop sides on the cargo bed of the M54A2C. Both vehicles are type classified Standard A and are presently in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

- | | |
|---------------|------------|
| (1) W/winch | 20,400 lbs |
| (2) W/o winch | 19,540 lbs |

b. Payload

- | | |
|-------------------|------------|
| (1) Highway | 20,000 lbs |
| (2) Cross-country | 10,000 lbs |

c. Towed load allowed

- | | |
|-------------------|------------|
| (1) Highway | 30,000 lbs |
| (2) Cross-country | 15,000 lbs |

d. Dimensions

- | | |
|-----------------------------|-------------|
| (1) Length | |
| (a) W/winch | 312-1/2 in. |
| (b) W/o winch | 297 in. |
| (2) Width | 97-3/4 in. |
| (3) Height | 117-1/2 in. |
| (4) Height, lowest operable | 85-1/2 in. |
| (5) Wheelbase | 179 in. |
| (6) Tread C-C | |
| (a) Front wheels | 74 in. |
| (b) Rear wheels | 72 in. |

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(7) Ground clearance	11-1/2 in.
(8) Cargo body	
(a) Length	168 in.
(b) Width	88 in.
(c) Area	102 sq ft
(d) Volume	511 cu ft
e. Vehicle crew	2
f. Passengers, including crew	22
g. Fuel	
(1) Capacity	78 gal
(2) Type	Multi-fuel
h. Electrical system	24 volt
i. Engine	6 cyl, 210 hp
j. Transmission	5 speed
k. Transfer	2 speed
l. Axles	3
m. Wheels	10 & spare
n. Tires	
(1) Size	11.00 x 20
(2) Tread design	NDCC
o. Ground pressure	
(1) Front tires	18.03 psi
(2) Rear tires	10.30 psi

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p. Shipping dimensions

- | | |
|---------------|-----------|
| (1) W/winch | 211 sq ft |
| (2) W/o winch | 201 sq ft |

3. (U) OPERATIONAL CHARACTERISTICS

- | | |
|--|-----------|
| a. Turning radius | 41 ft |
| b. Speed (max permissible) | 53 mph |
| c. Fuel consumption | 4.83 mpg |
| d. Cruising range (highway w/o towed load) | 319 miles |
| e. Fording depth | |
| (1) W/o kit | 30 in. |
| (2) W/kit | 78 in. |
| f. Gradeability | |
| (1) Forward slope | 60% |
| (2) Side slope | 20% |
| g. Angle of approach | |
| (1) W/winch | 37° |
| (2) W/o winch | 53° |
| h. Angle of departure | 34-1/2 ° |
| i. Max vertical step climbing ability | |
| j. Vehicle mobility index | |
| k. Vehicle cone index | |

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TAB H (Truck, Cargo, 5 Ton, 6x6, M55A2) to Appendix 1 (General Purpose Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)

PICTURE NOT AVAILABLE

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This truck is type classified Standard A and is presently in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

- | | |
|---------------|------------|
| (1) W/winch | 23,820 lbs |
| (2) W/o winch | 22,960 lbs |

b. Payload

- | | |
|-------------------|------------|
| (1) Highway | 20,400 lbs |
| (2) Cross-country | 10,400 lbs |

c. Towed load allowed

- | | |
|-------------------|------------|
| (1) Highway | 30,000 lbs |
| (2) Cross-country | 15,000 lbs |

d. Dimensions

- | | |
|-----------------------------|-----------|
| (1) Length | |
| (a) W/winch | 388.6 in. |
| (b) W/o winch | 373.1 in. |
| (2) Width | 97.7 in. |
| (3) Height | 120.8 in. |
| (4) Height, lowest operable | 85.4 in. |
| (5) Wheelbase | 215 in. |
| (6) Tread C-C | |
| (a) Front wheels | 74 in. |
| (b) Rear wheels | 72 in. |
| (7) Ground clearance | 11 in. |

UNCLASSIFIED

(8) Cargo body	
(a) Length	244 in.
(b) Width	88 in.
(c) Area	149 sq ft
(d) Volume	740.9 cu ft
e. Vehicle crew	2
f. Passengers, including crew	28
g. Fuel	
(1) Capacity	78 gal
(2) Type	Multi-fuel
h. Electrical system	24 volt
i. Engine	6 cyl, 210 hp
j. Transmission	5 speed
k. Transfer	2 speed
l. Axles	3
m. Wheels	10 & spare
n. Tires	
(1) Size	11.00 x 20
(2) Tread design	NDCC
o. Ground pressure	
p. Shipping dimensions	
(1) W/winch	261 sq ft
(2) W/o winch	251 sq ft

F-1-H-3

UNCLASSIFIED

UNCLASSIFIED

3. (U) OPERATIONAL CHARACTERISTICS

- | | |
|--|-----------|
| a. Turning radius | 41.7 ft |
| b. Speed (max permissible) | 53 mph |
| c. Fuel consumption | 4.8 mpg |
| d. Cruising range (highway w/o towed load) | 319 miles |
| e. Fording depth | |
| (1) W/o kit | 30 in. |
| (2) W/kit | 78 in. |
| f. Gradeability | |
| (1) Forward slope | 60% |
| (2) Side slope | 20% |
| g. Angle of approach | |
| (1) W/winch | 37° |
| (2) W/o winch | 52-1/2° |
| h. Angle of departure | 34-1/2° |
| i. Max vertical step climbing ability | |
| j. Vehicle mobility index | |
| k. Vehicle cone index | |

F-1-H-4

UNCLASSIFIED

UNCLASSIFIED

TAB I (Truck, Cargo, 5 Ton, 6x6, XM813A1) to Appendix 1 (General Purpose Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)

PICTURE NOT AVAILABLE

F-1-I-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This truck is a modification of the M54A2, 5 ton, 6x6 (Tab G). The modifications consists of a commercial diesel engine which alters its characteristics. The vehicle is presently undergoing evaluation as a candidate replacement for the M54A2.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

b. Payload

(1) Highway 20,000 lbs

(2) Cross-country 10,000 lbs

c. Towed load allowed

(1) Highway 30,000 lbs

(2) Cross-country 15,000 lbs

d. Dimensions

(1) Length

(a) W/winch

(b) W/o winch

(2) Width 97.8 in.

(3) Height 117.5 in.

(4) Height, lowest operable 85.5 in.

(5) Wheelbase 179 in.

(6) Tread C-C

(a) Front wheels

(b) Rear wheels

(7) Ground clearance 11.5 in.

UNCLASSIFIED

(8) Cargo body	
(a) Length	158 in.
(b) Width	88 in.
(c) Area	102 sq ft
(d) Volume	511 cu ft
e. Vehicle crew	2
f. Passengers, including crew	22
g. Fuel	
(1) Capacity	78 gal
(2) Type	Diesel
h. Electrical system	24 volt
i. Engine	
j. Transmission	5 speed
k. Transfer	2 speed
l. Axles	3
m. Wheels	10 & spare
n. Tires	
(1) Size	11.00 x 20
(2) Tread design	NDCC
o. Ground pressure	
p. Shipping dimensions	
(1) W/winch	
(2) W/o winch	

UNCLASSIFIED

UNCLASSIFIED

3. (U) OPERATIONAL CHARACTERISTICS

- a. Turning radius
 - (1) W/winch
 - (2) W/o winch
- b. Speed (max permissible)
- c. Fuel consumption
- d. Cruising range (highway w/o towed load)
- e. Fording depth
 - (1) W/o kit 30 in.
 - (2) W/kit 78 in.
- f. Gradeability
 - (1) Forward slope
 - (2) Side slope
- g. Angle of approach
 - (1) W/winch
 - (2) W/o winch
- h. Angle of departure
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

F-1-I-4

UNCLASSIFIED

UNCLASSIFIED

TAB J (Truck, Cargo, 10 Ton, 6x6, M125) to Appendix 1 (General Purpose Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)

PICTURE NOT AVAILABLE

F-1-J-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This truck is designed primarily to tow a 155mm gun or an 8 inch Howitzer. It is also used to transport cargo and personnel. This vehicle is type classified Standard A but is not presently in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

- | | |
|-----------------------------|-------------|
| a. Net weight | 32,550 lbs |
| b. Payload | |
| (1) Highway | 30,000 lbs |
| (2) Cross-country | 20,000 lbs |
| c. Towed load allowed | |
| (1) Highway | 50,000 lbs |
| (2) Cross-country | 30,000 lbs |
| d. Dimensions | |
| (1) Length | 318-1/2 in. |
| (2) Width | 114 in. |
| (3) Height | 129-1/4 in. |
| (4) Height, lowest operable | 93 in. |
| (5) Wheelbase | 181-1/2 in. |
| (6) Tread C-C | |
| (a) Front wheels | 79 in. |
| (b) Rear wheels | 81-1/4 in. |
| (7) Ground clearance | 26 in. |
| (8) Cargo body | |
| (a) Length | 180 in. |
| (b) Width | 96 in. |

UNCLASSIFIED

UNCLASSIFIED

(c) Area	123 sq ft
(d) Volume	600 cu ft
e. Vehicle crew	2
f. Passengers, including crew	
g. Fuel	
(1) Capacity	110 gal
(2) Type	Gas
h. Electrical system	24 volt
i. Engine	V8, 297 hp
j. Transmission	5 speed
k. Transfer	2 speed
l. Axles	3
m. Wheels	10 & spare
n. Tires	
(1) Size	14.00 x 20
(2) Tread design	NDCC
o. Ground pressure	
p. Shipping dimensions	252 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius	38 ft
b. Speed (max permissible)	42.6 mph
c. Fuel consumption	3 mpg
d. Cruising range (highway w/o towed load)	330 miles

F-1-J-3

UNCLASSIFIED

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- e. Fording depth
 - (1) W/o kit 30 in.
 - (2) W/kit 78 in.
- f. Gradeability
 - (1) Forward slope 60%
 - (2) Side slope 30%
- g. Angle of approach 30°
- h. Angle of departure 45°
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

UNCLASSIFIED

UNCLASSIFIED

APPENDIX 2 (Special Purpose/Special Equipment Vehicles) to Annex F
(Vehicle Characteristics and Descriptions) to First Interim
Report on Tactical Mobility for Amphibious Assault and Post
Assault Operations in the Mid-Range Period (FY 1970-79)
(CMC Project No. 30-68-08 of 10 December 1968) (U)

1. (U) PURPOSE. This appendix provides the characteristics of and performance data for special purpose/special equipment vehicles.
2. (U) GENERAL. A special purpose/special equipment vehicle is designed to perform a specific function or mission.

TABS:

- A. Truck, Ambulance, 1/4 Ton, 4x4, M718
- B. Truck, Ambulance, 1-1/4 Ton, 4x4, M725
- C. Truck, Ambulance, 1-1/4 Ton, 6x6, M792
- D. Truck, Ambulance, 1-1/4 Ton, 4x4, XM737
- E. Truck, Fuel Servicing, 2-1/2 Ton, 1200 Gal, 6x6, M49A2C
- F. Truck, Tank, Water, 2-1/2 Ton, 1000 Gal, 6x6, M50A2
- G. Truck, Dump, 5 Ton, 6x6, M51A2
- H. Truck, Wrecker, 5 Ton, 6x6, XM816A1
- I. Truck, Dump, 5 Ton, 6x6, XM817A1
- J. Truck, Tractor, 5 Ton, 6x6, M52A2
- K. Truck, Tractor, 10 Ton, 6x6, M123A1C
- L. Truck, Tractor, 22-1/2 Ton, 8x8, XM746
- M. Truck, Wrecker, Crane, 2-1/2 Ton, 6x6 M108A2
- N. Truck, wrecker, 5 Ton, 6x6, M543A2

UNCLASSIFIED

TAB A (Truck, Ambulance, 1/4 Ton, 4x4, M718) to Appendix 2 (Special Purpose/Special Equipment Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

1. (U) GENERAL. This ambulance is type classified Standard A and is presently in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	2,780 lbs
b. Gross weight	3,680 lbs
c. Dimensions	
(1) Length	143 in.
(2) Width	71 in.
(3) Height	76.3 in.
(4) Height lowest operable	51.7 in.
(5) Wheelbase	85 in.
(6) Tread C-C	53 in.
(7) Ground clearance	8.3 in.
d. Vehicle crew	2
e. Passengers	1 litter & 3 seated patients, 2 litter & 2 seated patients, 3 litter patients
f. Fuel	
(1) Capacity	17.7
(2) Type	Gas
g. Electrical system	24 volts
h. Engine	4 cyl, 71 hp
i. Transmission	4 speed
j. Transfer	1 speed
k. Axles	2

UNCLASSIFIED

- l. Wheels 4 & 1 spare
- m. Tires
 - (1) Size 7.00 x 16
 - (2) Tread design NDCC
- n. Ground pressure
- o. Shipping dimensions 70.5 sq ft reducible
to 65.5 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

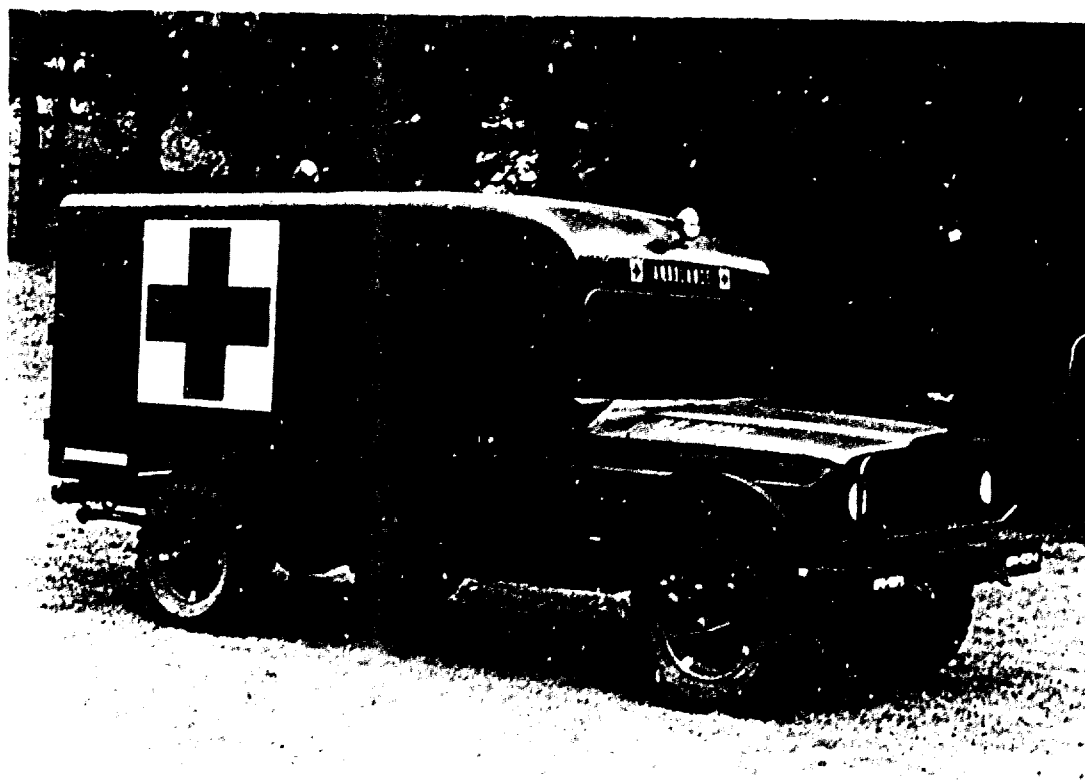
- a. Turning radius 18.52 ft
- b. Speed (max permissible) 66 mph
- c. Fuel consumption 19.1 mpg
- d. Cruising range 300 miles
- e. Fording depth
 - (1) W/kit 66 in. or lowest litter
 - (2) W/o kit 21 in.
- f. Gradeability
 - (1) Forward slope 60%
 - (2) Side slope 30%
- g. Angle of approach 67°
- h. Angle of departure 88°
- i. Maximum vertical step climbing ability
- j. Mobility index
- k. Vehicle cone index

F-2-A-3

UNCLASSIFIED

UNCLASSIFIED

TAB B (Truck, Ambulance, 1-1/4 Ton, 4x4, M725) to Appendix 2 (Special Purpose/Special Equipment Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



F-2-B-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This ambulance is type classified Standard B and is organic to Marine aviation units.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	6,400 lbs
b. Payload	
(1) Highway	2,000 lbs
(2) Cross-country	2,000 lbs
c. Dimensions	
(1) Length	209-3/4 in.
(2) Width	85 in.
(3) Height	95 in.
(4) Wheelbase	126 in.
(5) Tread C-C	67 in.
(6) Ground clearance	10 in.
d. Vehicle crew	2
e. Passengers	5 litters or 8 ambulatory patients
f. Fuel	
(1) Capacity	28 gal
(2) Type	Gas
g. Electrical system	24 volt
h. Engine	6 cyl, 230 hp
i. Transmission	4 speed
j. Transfer	2 speed
k. Axles	2

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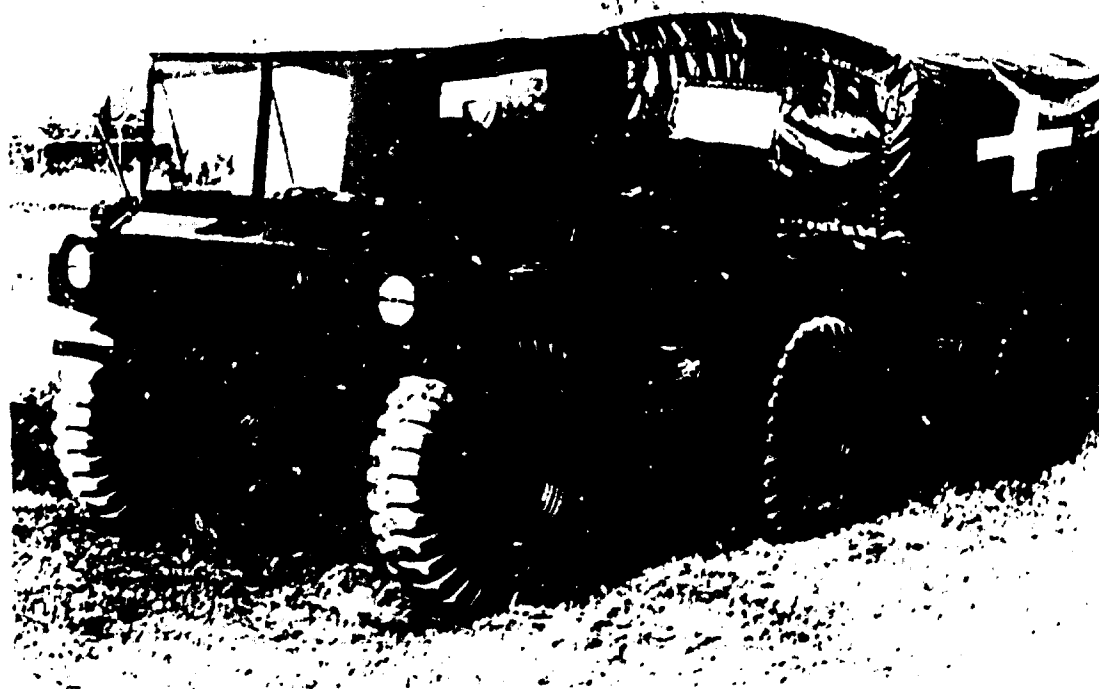
- l. Wheels 4 & spare
- m. Tires
 - (1) Size 9.00 x 16
 - (2) Tread design NDCC
- n. Ground pressure
- o. Shipping dimensions 124 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

- a. Turning radius 27 ft
- b. Speed (max permissible) 60 mph
- c. Fuel consumption 4.5 mpg
- d. Cruising range (highway w/o towed load) 225 miles
- e. Fording depth
 - (1) W/o kit 30 in.
 - (2) W/kit Lowest litter
- f. Gradeability
 - (1) Forward slope 60%
 - (2) Side slope
- g. Angle of approach 15°
- h. Angle of departure 25°
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

UNCLASSIFIED

TAB C (Truck, Ambulance, 1-1/2 Ton, 6x6, M792) to Appendix 2 (Special Purpose/Special Equipment Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



F-2-C-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This ambulance is in the developmental stage and is a candidate replacement vehicle for the M43B1 3/4 ton ambulance.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

- | | |
|---------------|-----------|
| (1) W/winch | 6,412 lbs |
| (2) W/o winch | 6,200 lbs |

b. Payload 2,500 lbs

c. Towed load allowed 5,380 lbs

d. Dimensions

(1) Length

- | | |
|---------------|------------|
| (a) W/winch | 229.75 in. |
| (b) W/o winch | 221.5 in. |

(2) Width 84 in.

(3) Height 91 in.

(4) Height lowest operable 64.1 in.

(5) Wheelbase

- | | |
|-----------------------------|----------|
| (a) Front wheels to interim | 78.8 in. |
| (b) Interim to rear wheels | 84.4 in. |

(6) Tread C-C 71.3 in.

(7) Ground clearance 15.0 in.

(8) Cargo body

- | | |
|------------|-----------|
| (a) Length | 84.75 in. |
| (b) Width | 74.5 in. |
| (c) Area | 36 sq ft |

e. Vehicle crew 2

f. Passengers

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g. Fuel	
(1) Capacity	43 gal
(2) Type	Diesel
h. Electrical system	24 volts
i. Engine	3 cyl, 103 hp
j. Transmission	4 speed
k. Transfer	2 speed
l. Axles	3
m. Wheels	6
n. Tires	
(1) Size	11.00 x 18
(2) Tread design	NDCC
o. Ground pressure	
(1) Front tires	6 psi
(2) Interim tires	6.3 psi
(3) Rear tires	6.3 psi
p. Shipping dimensions	
(1) W/winch	133 sq ft
(2) W/o winch	126 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius	29 ft
b. Speeds (max permissible)	
(1) On land	55 mph
(2) Inland waters	2 mph
c. Fuel consumption	6.6 mpg

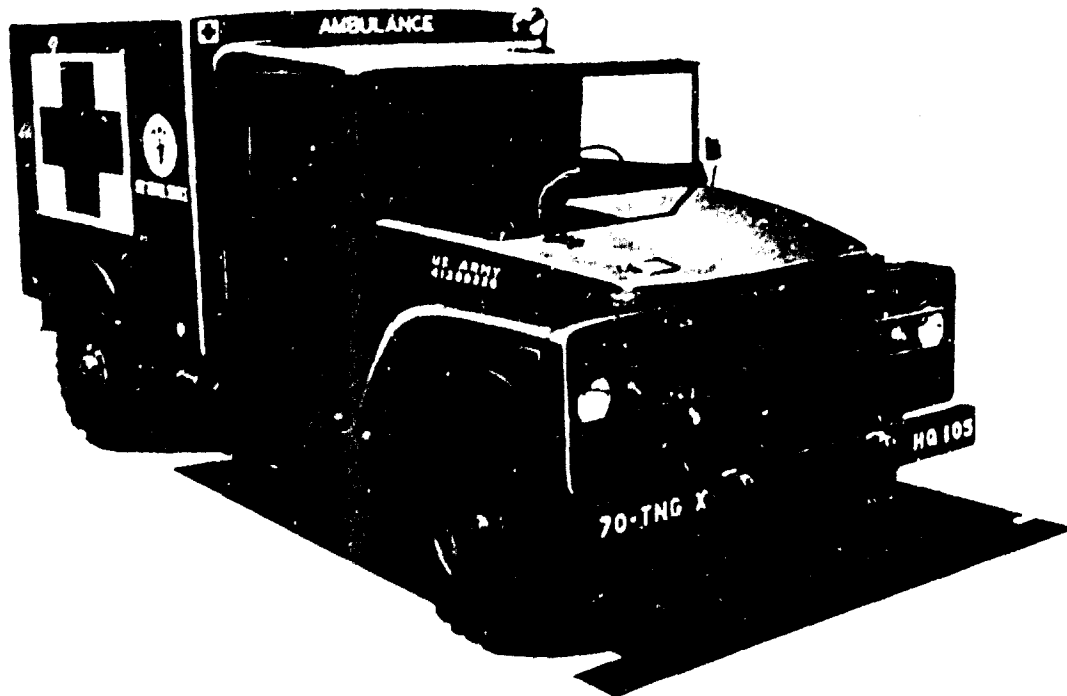
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d. Cruising range (w/o towed load)	610 miles
e. Fording	Swimmer
f. Gradeability	
(1) Forward slope	60%
(2) Side slope	40%
g. Angle of approach	
(1) W/winch	57°
(2) W/o winch	62.5°
h. Angle of departure	58°
i. Max vertical step climbing ability	
j. Vehicle mobility index	
k. Vehicle cone index	

UNCLASSIFIED

UNCLASSIFIED

TAB D (Truer, Ambulance, 1-1/4 Ton, 4x4, XM737) to Appendix 2 (Special Purpose/Special Equipment Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

1. (U) GENERAL. This vehicle is in the developmental stage as a candidate replacement vehicle for the M43E1 3/4 ton ambulance. It may be procured by the Marine Corps.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	7,500 lbs
b. Payload	
(1) Highway	1,700 lbs
(2) Cross-country	
c. Dimensions	
(1) Length	199 in.
(2) Width	84 in.
(3) Height	100.4 in.
(4) Wheelbase	
(5) Tread C-C	
(6) Ground clearance	11.8 in.
d. Vehicle crew	3
e. Passengers	4 litters or 8 ambulatory patients
f. Fuel	
(1) Capacity	50 gal
(2) Type	Gas
g. Electrical system	24 volt
h. Engine	
i. Transmission	
j. Transfer	
k. Axles	

UNCLASSIFIED

UNCLASSIFIED

- l. Wheels 4 & spare
- m. Tires
 - (1) Size
 - (2) Tread design
- n. Ground pressure
- o. Shipping dimensions
 - (1) W/ winch
 - (2) W/o winch 112 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

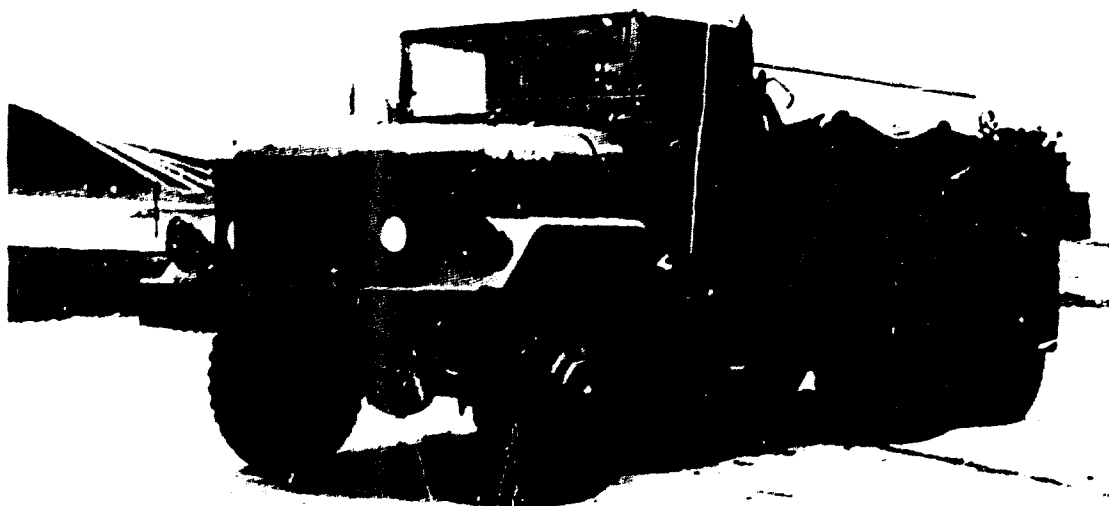
- a. Turning radius 30 ft
- b. Speed (max permissible) 60 mph
- c. Fuel consumption 6 mpg
- d. Cruising range (highway w/o towed load) 300 miles
- e. Fording depth
 - (1) W/o kit 20 in.
 - (2) W/kit Lowest litter
- f. Gradeability
 - (1) Forward slope 60%
 - (2) Side slope 30%
- g. Angle of approach 60°
- h. Angle of departure 45°
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

F-2-D-3

UNCLASSIFIED

UNCLASSIFIED

TAB E (Truck, Fuel Servicing, 2-1/2 Ton, 1200 Gal, 6x6, M49A2C) to Appendix 2 (Special Purpose/Special Equipment Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



F-2-E-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This tanker is used to dispense fuel to those items of equipment isolated from established refueling facilities. It is type classified Standard A and is presently in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

- | | |
|---------------|------------|
| (1) W/winch | 15,125 lbs |
| (2) W/o winch | 14,625 lbs |

b. Payload

- | | |
|-------------------|-----------|
| (1) Highway | 1,200 gal |
| (2) Cross-country | 600 gal |

c. Towed load allowed

- | | |
|-------------------|------------|
| (1) Highway | 10,000 lbs |
| (2) Cross-country | 6,000 lbs |

d. Dimensions

- | | |
|-----------------------------|------------|
| (1) Length | |
| (a) W/winch | 277 in. |
| (b) W/o winch | 263 in. |
| (2) Width | 96 in. |
| (3) Height | 98 in. |
| (4) Height, lowest operable | 92 in. |
| (5) Wheelbase | 154 in. |
| (6) Tread C-C | |
| (a) Front tires | 67-3/4 in. |
| (b) Rear tires | 70 in. |
| (7) Ground clearance | 12-7/8 in. |

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e. Vehicle crew	2
f. Fuel	
(1) Capacity	50 gal
(2) Type	Multi-fuel
g. Electrical system	24 volts
h. Engine	6 cyl, 140 hp
i. Transmission	5 speed
j. Transfer	2 speed
k. Axles	3
l. Wheels	10 & spare
m. Tires	
(1) Size	9.00 x 20
(2) Tread design	NDCC
n. Ground pressure	
o. Shipping dimensions	
(1) W/winch	185 sq ft
(2) W/o winch	175 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

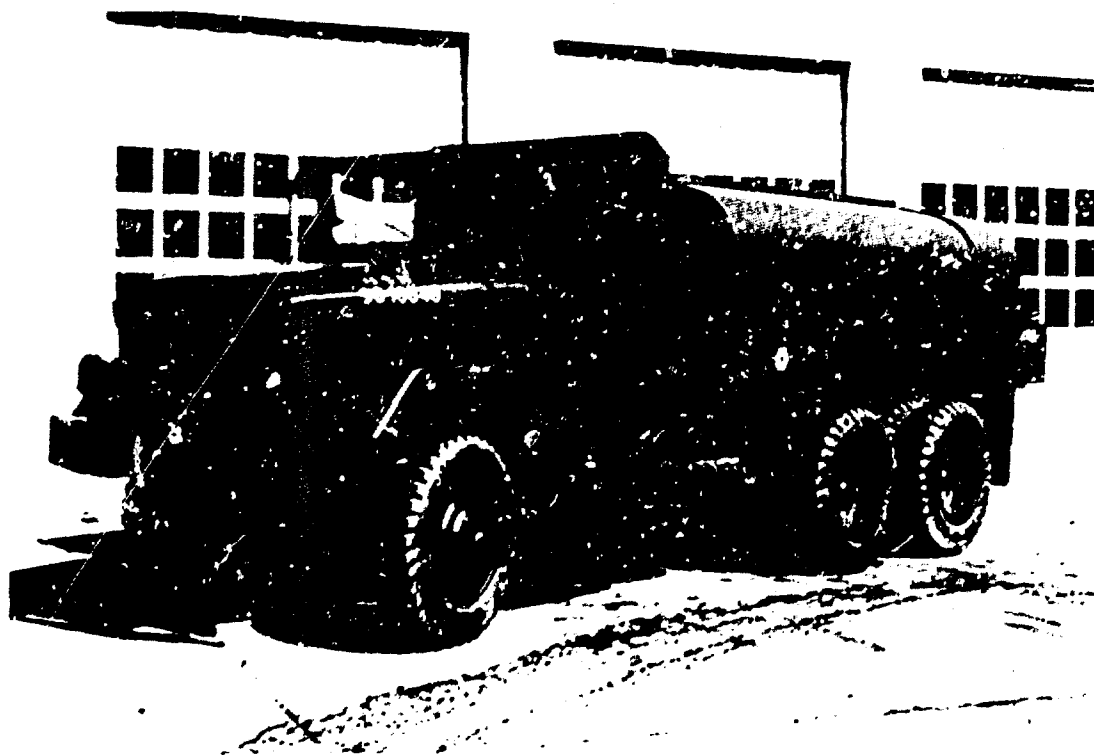
a. Turning radius	36 ft
b. Speed (max permissible)	56 mph
c. Fuel consumption	6 mpg
d. Cruising range (highway w/o towed load)	320 miles
e. Fording depth	
(1) W/kit	72 in.
(2) W/o kit	30 in.

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- f. Gradeability
 - (1) Forward slope 60%
 - (2) Side slope 30%
- g. Angle of approach
 - (1) W/winch 40°
 - (2) W/o winch 48°
- h. Angle of departure 40°
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

UNCLASSIFIED

TAB F (Truck, Tank, Water, 2-1/2 Ton, 1000 Gal, 6x6, M50A2) to Appendix 2 (Special Purpose/Special Equipment Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



F-2-F-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This tanker is for transporting potable water. It is type classified Standard A and is presently in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

- | | |
|---------------|------------|
| (1) W/winch | 14,620 lbs |
| (2) W/o winch | 14,120 lbs |

b. Payload

- | | |
|-------------------|---------------------------|
| (1) Highway | 8,333 lbs or
1,000 gal |
| (2) Cross-country | 3,330 lbs or
400 gal |

c. Towed load allowed

- | | |
|-------------------|------------|
| (1) Highway | 10,000 lbs |
| (2) Cross-country | 6,000 lbs |

d. Dimensions

- | | |
|-----------------------------|------------|
| (1) Length | |
| (a) W/winch | 277 in. |
| (b) W/o winch | 263 in. |
| (2) Width | 96 in. |
| (3) Height | 98 in. |
| (4) Height, lowest operable | 92 in. |
| (5) Wheelbase | 154 in. |
| (6) Tread C-C | |
| (a) Front wheels | 67-3/4 in. |
| (b) Rear wheels | 70 in. |

UNCLASSIFIED

(7) Ground clearance	12-7/8 in.
e. Vehicle crew	2
f. Fuel	
(1) Capacity	50 gal
(2) Type	Multi-fuel
g. Electrical system	24 volt
h. Engine	6 cyl, 140 hp
i. Transmission	5 speed
j. Transfer	2 speed
k. Axles	3
l. Wheels	10 & spare
m. Tires	
(1) Size	9.00 x 20
(2) Tread design	NDCC
n. Ground pressure	
o. Shipping dimensions	
(1) W/winch	170 sq ft
(2) W/o winch	160 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius	
(1) W/winch	35-1/2 ft
(2) W/o winch	34-1/2 ft
b. Speed (max permissible)	56 mph

UNCLASSIFIED

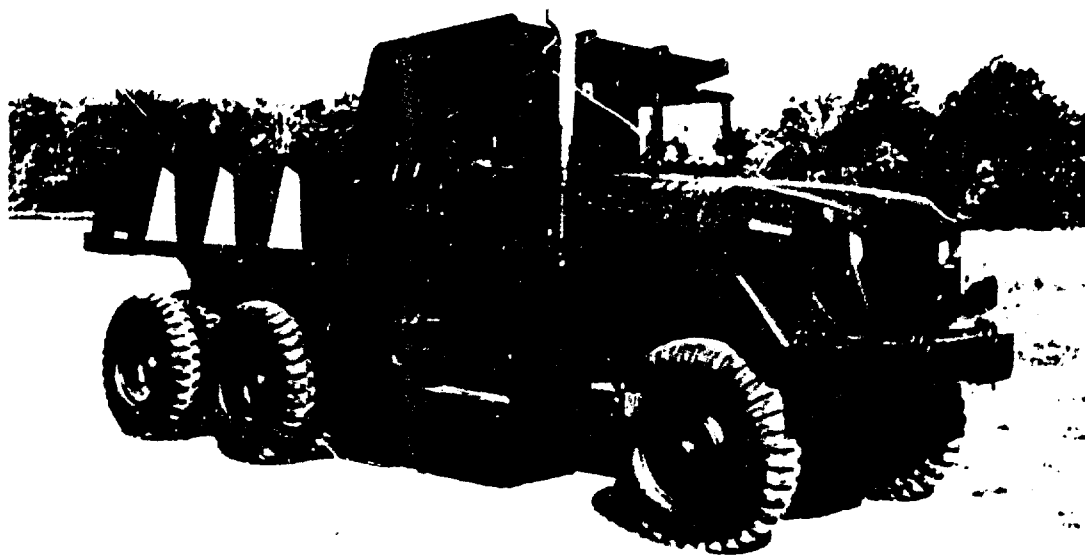
c. Fuel consumption	6 mpg.
d. Cruising range (highway w/o towed load)	377 miles
e. Fording depth	
(1) W/o kit	30 in.
(2) W/kit	72 in.
f. Gradesability	
(1) Forward slope	60%
(2) Side slope	40%
g. Angle of approach	
(1) W/winch	40°
(2) W/o winch	48°
h. Angle of departure	40°
i. Max vertical step climbing ability	
j. Vehicle mobility index	
k. Vehicle cone index	

F-2-F-4

UNCLASSIFIED

UNCLASSIFIED

TAB G (Truck, Dump, 5 Ton, 6x6, M51A2) to Appendix 2 (Special Purpose/
Special Equipment Vehicles) to Annex F (Vehicle Characteristics
and Descriptions) to First Interim Report on Tactical Mobility
for Amphibious Assault and Post Assault Operations in the Mid-
Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10
December 1968) (U)



UNCLASSIFIED

1. (U) GENERAL. This truck is used to haul and dump earth, sand, gravel, etc., and to transport general cargo. It is type classified Standard A and presently in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

- | | |
|---------------|------------|
| (1) W/winch | 22,700 lbs |
| (2) W/o winch | 21,920 lbs |

b. Payload

- | | |
|-------------------|------------|
| (1) Highway | 20,000 lbs |
| (2) Cross-country | 10,000 lbs |

c. Towed load allowed

- | | |
|-------------------|------------|
| (1) Highway | 30,000 lbs |
| (2) Cross-country | 15,000 lbs |

d. Dimensions

- | | |
|----------------------|-------------|
| (1) Length | |
| (a) W/winch | 281-1/2 in. |
| (b) W/o winch | 266 in. |
| (2) Width | 97-3/4 in. |
| (3) Height | 110-1/2 in. |
| (4) Wheelbase | 167 in. |
| (5) Tread C-C | |
| (a) Front tires | 74 in. |
| (b) Rear bogies | 72 in. |
| (6) Ground clearance | 11-1/2 in. |
| (7) Cargo body | |
| (a) Length | 125 in. |
| (b) Width | 82 in. |

UNCLASSIFIED

(c) Height	23 in.
(d) Area	70.7 sq ft
(e) Volume	5 cu yd
e. Vehicle crew	2
f. Fuel	
(1) Capacity	90 gal
(2) Type	Multi-fuel
g. Electrical system	24 volts
h. Engine	6 cyl, 210 hp
i. Transmission	5 speed
j. Transfer	2 speed
k. Axles	3
l. Wheels	10 & spare
m. Tires	
(1) Size	11.00 x 20
(2) Tread design	NDCC
n. Ground pressure	
o. Shipping dimensions	
(1) W/winch	190 sq ft
(2) W/o winch	180 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius	
(1) W/winch	39 ft 4 in.
(2) W/o winch	38 ft 8 in.
b. Speed (max permissible)	54 mph
c. Fuel consumption	5.3 mpg
d. Cruising range (w/o towed load)	477 miles

UNCLASSIFIED

- e. Fording depth
 - (1) W/kit 78 in.
 - (2) W/o kit 30 in.
- f. Gradeability
 - (1) Forward slope 60%
 - (2) Side slope 47%
- g. Angle of approach
 - (1) W/winch 37°
 - (2) W/o winch 52-1/2°
- h. Angle of departure 69°
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

UNCLASSIFIED

TAB H (Truck, Wrecker, 5 Ton, 6x6, XM816A1) to Appendix 2 (Special Purpose/Special Equipment Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)

PICTURE NOT AVAILABLE

F-2-H-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This wrecker is a modification of the M543A2, 5 ton, 6x6 (Tab N). The modification consists of a commercial diesel engine which alters its characteristics. This vehicle is presently undergoing evaluation as a candidate replacement for the M543A2.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

b. Payload (towed suspended, boom braced)

(1) Highway 12,000 lbs

(2) Cross-country 7,000 lbs

c. Crane rated lift capacities

(1) 10 ft radius

(a) W/o outriggers 6,500 lbs

(b) W/outriggers 10,000 lbs

(c) W/boom supports 20,000 lbs

(2) 15 ft radius

(a) W/o outriggers 3,800 lbs

(b) W/outriggers 5,000 lbs

(3) 18 ft radius

(a) W/o outriggers 3,000 lbs

(b) W/outriggers 4,000 lbs

d. Towed load allowed

(1) Highway 30,000 lbs

(2) Cross-country 20,000 lbs

F-2-H-2

UNCLASSIFIED

UNCLASSIFIED

e. Dimensions

- (1) Length
 - (a) W/winch
 - (b) W/o winch
- (2) Width 97.8 in.
- (3) Height 114 in.
- (4) Height, lowest operable 106 in.
- (5) Wheelbase 179 in.
- (6) Tread C-C
 - (a) Front wheels 74 in.
 - (b) Rear wheels 72 in.
- (7) Ground clearance 11-1/2 in.

f. Vehicle crew 2

g. Fuel

- (1) Capacity 110 gal
- (2) Type Diesel

h. Electrical system 24 volt

i. Engine 6 cyl

j. Transmission 5 speed

k. Transfer 2 speed

l. Axles 3

m. Wheels 10 & spare

n. Tires

- (1) Size 11.00 x 20
- (2) Tread design NDCC

F-2-H-3

UNCLASSIFIED

UNCLASSIFIED

- o. Ground pressure
- p. Shipping dimensions
 - (1) W/winch
 - (2) W/o winch

3. (U) OPERATIONAL CHARACTERISTICS

- a. Turning radius
 - (1) W/winch
 - (2) W/o winch
- b. Speed (max permissible)
- c. Fuel consumption
- d. Cruising range (highway w/o towed load)
- e. Fording depth
 - (1) W/o kit 30 in.
 - (2) W/kit 78 in.
- f. Gradeability
 - (1) Forward slope 61%
 - (2) Side slope
- g. Angle of approach
 - (1) W/winch
 - (2) W/o winch
- h. Angle of departure 34°
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

UNCLASSIFIED

UNCLASSIFIED

TAB I (Truck, Dump, 5 Ton, 6x6, XM617A1) to Appendix 2 (Special Purpose/
Special Equipment Vehicles) to Annex F (Vehicle Characteristics
and Descriptions) to First Interim Report on Tactical Mobility
for Amphibious Assault and Post Assault Operations in the Mid-
Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December
1968) (U)

PICTURE NOT AVAILABLE

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This dump truck will replace the M51A2 (Tab G) if adopted. Generally the characteristics are the same with the major difference being a commercially designed diesel engine. The vehicle is presently undergoing evaluation.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

b. Payload

(1) Highway	20,000 lbs
(2) Cross-country	10,000 lbs

c. Towed load allowed

(1) Highway	30,000 lbs
(2) Cross-country	15,000 lbs

d. Dimensions

(1) Length

(a) W/winch

(b) W/o winch

(2) Width	97-3/4 in.
-----------	------------

(3) Height	110-1/2 in.
------------	-------------

(4) Height, lowest operable	100-1/2 in.
-----------------------------	-------------

(5) Wheelbase	167 in.
---------------	---------

(6) Tread C-C

(a) Front wheels	74 in.
------------------	--------

(b) Rear wheels	72 in.
-----------------	--------

(7) Ground clearance	11-1/2 in.
----------------------	------------

UNCLASSIFIED

UNCLASSIFIED

(8) Cargo body	
(a) Length	125 in.
(b) Width	82 in.
(c) Height	23 in.
(d) Area	70.7 sq ft
(e) Volume	5 cu yd
e. Vehicle crew	2
f. Fuel	
(1) Capacity	90 gal
(2) Type	Diesel
g. Electrical system	24 volt
h. Engine	
i. Transmission	5 speed
j. Transfer	2 speed
k. Axles	3
l. Wheels	10 & spare
m. Tires	
(1) Size	11.00 x 20
(2) Tread design	NDCC
n. Ground pressure	
o. Shipping dimensions	
(1) W/winch	
(2) W/o winch	

UNCLASSIFIED

UNCLASSIFIED

3. (U) OPERATIONAL CHARACTERISTICS

- a. Turning radius
 - (1) W/winch 39 ft 4 in.
 - (2) W/o winch 38 ft 8 in.
- b. Speed (max permissible) 54 mph
- c. Fuel consumption
- d. Cruising range (highway w/o towed load)
- e. Fording depth
 - (1) W/o kit 30 in.
 - (2) W/kit 78 in.
- f. Gradeability
 - (1) Forward slope 60%
 - (2) Side slope 47%
- g. Angle of approach
 - (1) W/winch
 - (2) W/o winch
- h. Angle of departure 69°
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

F-2-I-4

UNCLASSIFIED

UNCLASSIFIED

(8) Cargo body

- (a) Length 125 in.
- (b) Width 82 in.
- (c) Height 23 in.
- (d) Area 70.7 sq ft
- (e) Volume 5 cu yd

e. Vehicle crew 2

f. Fuel

- (1) Capacity 90 gal
- (2) Type Diesel

g. Electrical system 24 volt

h. Engine

i. Transmission 5 speed

j. Transfer 2 speed

k. Axles 3

l. Wheels 10 & spare

m. Tires

- (1) Size 11.00 x 20
- (2) Tread design NDCC

n. Ground pressure

o. Shipping dimensions

- (1) W/winch
- (2) W/o winch

F-2-I-3

UNCLASSIFIED

UNCLASSIFIED

3. (U) OPERATIONAL CHARACTERISTICS

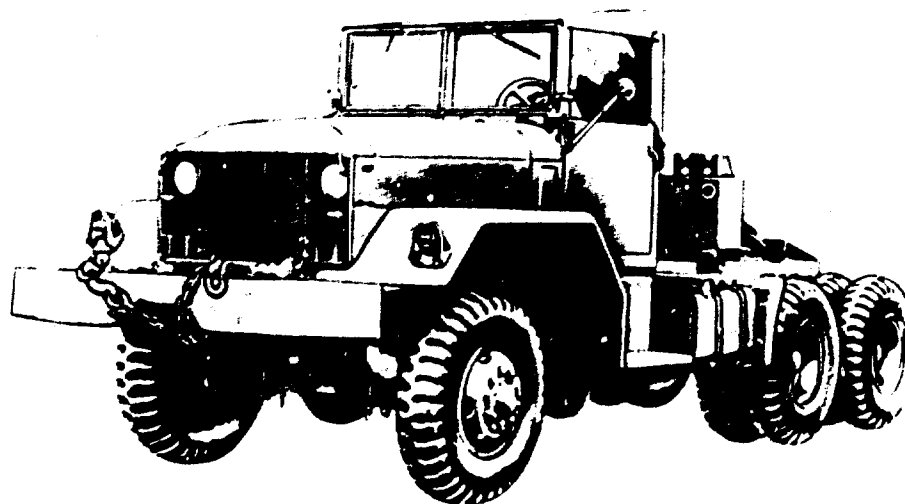
- a. Turning radius
 - (1) W/winch 39 ft 4 in.
 - (2) W/o winch 38 ft 8 in.
- b. Speed (max permissible) 54 mph
- c. Fuel consumption
- d. Cruising range (highway w/o towed load)
- e. Fording depth
 - (1) W/o kit 30 in.
 - (2) W/kit 78 in.
- f. Gradeability
 - (1) Forward slope 60%
 - (2) Side slope 47%
- g. Angle of approach
 - (1) W/winch
 - (2) W/o winch
- h. Angle of departure 69°
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

F-2-I-4

UNCLASSIFIED

UNCLASSIFIED

TAB J (Truck, Tractor, 5 Ton, 6x6, M52A2) to Appendix 2 (Special Purpose/
Special Equipment Vehicles) to Annex F (Vehicle Characteristics
and Descriptions) to First Interim Report on Tactical Mobility for
Amphibious Assault and Post Assault Operations in the Mid-Range
Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968)
(U)



ORD E4008

F-2-J-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This truck was designed to tow semitrailers, is type classified Standard A, and is in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

- | | |
|---------------|------------|
| (1) W/winch | 18,700 lbs |
| (2) W/o winch | 17,840 lbs |

b. Payload, (fifth wheel)

- | | |
|-------------------|------------|
| (1) Highway | 25,000 lbs |
| (2) Cross-country | 15,000 lbs |

c. Payload semitrailer

- | | |
|-------------------|------------|
| (1) Highway | 55,000 lbs |
| (2) Cross-country | 37,500 lbs |

d. Dimensions

- | | |
|-----------------------------|-------------|
| (1) Length | |
| (a) W/winch | 273-1/2 in. |
| (b) W/o winch | 258 in. |
| (2) Width | 97-3/4 in. |
| (3) Height | 103-3/4 in. |
| (4) Height, lowest operable | 85-1/2 in. |
| (5) Wheelbase | 167 in. |
| (6) Tread C-C | |
| (a) Front tires | 74 in. |
| (b) Rear bogies | 72 in. |
| (7) Ground clearance | 11-1/2 in. |

UNCLASSIFIED

e. Vehicle crew	2
f. Fuel	
(1) Capacity	90 gal
(2) Type	Multi-fuel
g. Electrical system	24 volt
h. Engine	6 cyl, 210 hp
i. Transmission	5 speed
j. Transfer	2 speed
k. Axles	3
l. Wheels	10 & spare
m. Tires	
(1) Size	11.00 x 20
(2) Tread design	NDCC
n. Ground pressure	
c. Shipping dimensions	
(1) W/winch	185 sq ft
(2) W/o winch	175 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius	37 ft 6 in.
b. Speed (max permissible)	53 mph
c. Fuel consumption	5.3 mpg
d. Cruising range(w/o towed load)	477 miles
e. Fording depth	
(1) W/kit	78 in.
(2) W/o kit	30 in.

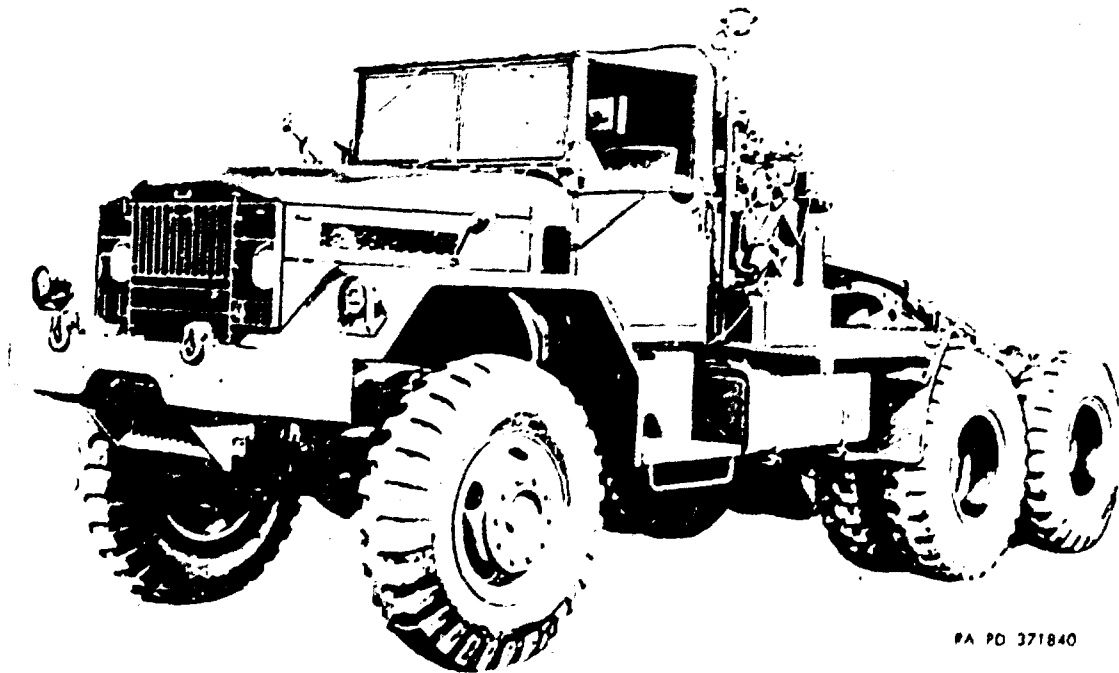
UNCLASSIFIED

- f. Gradeability
 - (1) Forward slope 60%
 - (2) Side slope 40%
- g. Angle of approach
 - (1) W/winch 37°
 - (2) W/o winch 52-1/2°
- h. Angle of departure 68°
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

UNCLASSIFIED

UNCLASSIFIED

TAB K (Truck, Tractor, 10 Ton, 6x6, M123A1C) to Appendix 2 (Special Purpose/Special Equipment Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



PA PD 371840

F-2-K-1

UNCLASSIFIED

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1. (U) GENERAL. This tractor is a heavy duty vehicle designed for use with a special purpose semitrailer (Annex F, Appendix 3, Tab I) in combat vehicle recovery operations. It has a single midship winch and a low mounted fifth wheel. This vehicle has been type classified Standard A and is in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	32,250 lbs
b. Payload	
(1) Highway	35,000 lbs
(2) Cross-country	30,000 lbs
c. Towed load allowed	
(1) Highway	120,000 lbs
(2) Cross-country	80,000 lbs
d. Dimensions	
(1) Length	288-7/8 in.
(2) Width	114 in.
(3) Height	111 in.
(4) Height, lowest operable	90.5 in.
(5) Wheelbase	181.5 in.
(6) Tread C-C	
(a) Front tires	79 in.
(b) Rear bogies	99-1/2 in.
e. Vehicle crew	2
f. Fuel	
(1) Capacity	166 gal
(2) Type	Diesel
g. Electrical system	24 volt

UNCLASSIFIED

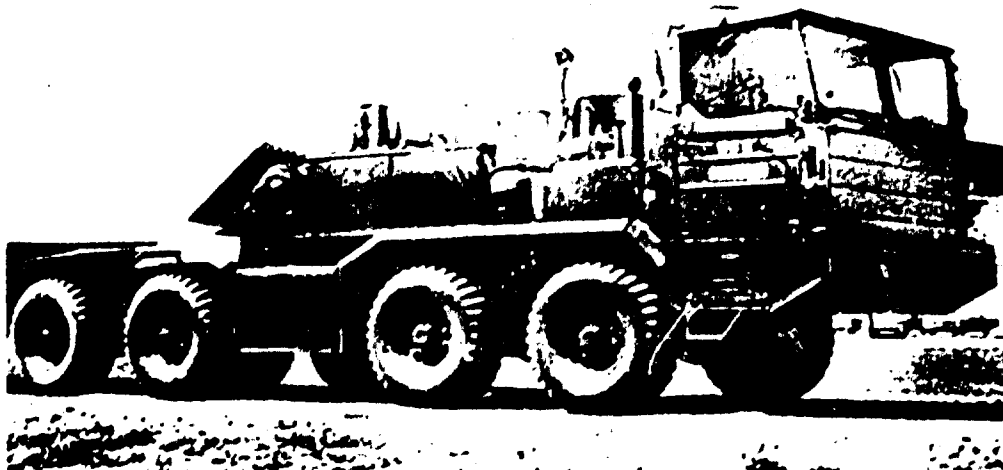
- h. Engine V8, 300 hp
- i. Transmission 10 speed
- j. Transfer Integral with transmission
- k. Axles 3
- l. Wheels 10 & spare
- m. Tires
 - (1) Size 14.00 x 24
 - (2) Tread design NDCC
- n. Ground pressure
- o. Shipping dimensions 228 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

- a. Turning radius 18 ft
- b. Speed (max permissible) 44 mph
- c. Fuel consumption 2 mpg
- d. Cruising range 350 miles
- e. Fording depth
 - (1) W/kit 78 in.
 - (2) W/o kit 30 in.
- f. Gradeability
 - (1) Forward slope 60%
 - (2) Side slope
- g. Angle of approach 52°
- h. Angle of departure 75°
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

UNCLASSIFIED

TAB L (Truck, Tractor, 22-1/2 Ton, 8x8, XM746) to Appendix 2 (Special Purpose/Special Equipment Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

1. (U) GENERAL. This tractor was designed as the prime mover for the XM747, 52-1/2 ton lowbed trailer (Tab H, Appendix 3). It is anticipated that the tractor trailer combination will replace the present heavy equipment transporters. This vehicle is not presently in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	41,578 lbs
b. Payload (fifth wheel)	
(1) Highway	52,000 lbs
(2) Cross-country	
c. Payload semitrailer	
(1) Highway	180,092 lbs
(2) Cross-country	
d. Dimensions	
(1) Length	332 in.
(2) Width	121 in.
(3) Height	112 in.
(4) Height, lowest operable	
(5) Wheelbase	
(6) Tread C-C	101.5 in.
(7) Ground clearance	12.12 in.
e. Vehicle crew	2
f. Passengers, including crew	4
g. Fuel	
(1) Capacity	280 gal
(2) Type	Diesel

UNCLASSIFIED

- h. Electrical system
- i. Engine V12, 700 hp
- j. Transmission 5 speed
- k. Transfer
- l. Axles 4
- m. Wheels 8 & spare
- n. Tires
 - (1) Size 18.22 x 5.20
 - (2) Tread design NDCC
- o. Ground pressure
- p. Shipping dimensions
 - (1) W/winch
 - (2) W/o winch

3. (U) OPERATIONAL CHARACTERISTICS

- a. Turning radius
- b. Speed (max permissible) 38 mph
- c. Fuel consumption 1.14 mpg
- d. Cruising range (highway w/towed load) 320 miles
- e. Fording depth
 - (1) W/o kit 48 in.
 - (2) W/kit
- f. Gradeability
 - (1) Forward slope
 - (2) Side slope
- g. Angle of approach 35°

F-2-L-3

UNCLASSIFIED

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- h. Angle of departure
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

27°

F-2-L-4

UNCLASSIFIED

UNCLASSIFIED

TAB M (Truck, Wrecker, Crane, 2-1/2 Ton, 6x6, M108A2) to Appendix 2 (Special Purpose/Special Equipment Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)

PICTURE NOT AVAILABLE

F-2-M-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This wrecker is used to tow, salvage and recover disabled vehicles and equipment organic to the MAW. The vehicle has been type classified Standard A and is a Navy procured item.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

- | | |
|---------------|------------|
| (1) W/o winch | 19,375 lbs |
| (2) W/winch | 19,785 lbs |

b. Payload (towed suspended, boom braced)

- | | |
|-------------------|-----------|
| (1) Highway | 3,500 lbs |
| (2) Cross-country | 600 lbs |

c. Crane rated lift capacities

- | | |
|------------------------|-----------|
| (1) 17 ft 6 in. radius | |
| (a) W/o outriggers | 2,000 lbs |
| (b) W/outriggers | 4,000 lbs |
| (2) 5 ft radius | |
| (a) W/o outriggers | 4,000 lbs |
| (b) W/outriggers | 5,000 lbs |

d. Towed load allowed

- | | |
|-------------------|------------|
| (1) Highway | 10,000 lbs |
| (2) Cross-country | 6,000 lbs |

e. Dimensions

- | | |
|---------------|-------------|
| (1) Length | |
| (a) W/winch | 302-1/4 in. |
| (b) W/o winch | 288-3/5 in. |
| (2) Width | 96 in. |

F-2-M-2

UNCLASSIFIED

UNCLASSIFIED

(3) Height	99-1/2 in.
(4) Height, lowest operable	93 in.
(5) Wheelbase	154 in.
(6) Tread C-C	
(a) Front wheels	67-3/4 in.
(b) Rear wheels	70 in.
(7) Ground clearance	12.5 in.
f. Vehicle crew	2
g. Fuel	
(1) Capacity	50 gal
(2) Type	Multi-fuel
h. Electrical system	24 volt
i. Engine	6 cyl, 140 hp
j. Transmission	5 speed
k. Transfer	2 speed
l. Axles	3
m. Wheels	10 & spare
n. Tires	
(1) Size	9.00 x 20
(2) Tread design	NDCC
o. Ground pressure	
p. Shipping dimensions	
(1) W/winch	202 sq ft
(2) W/o winch	192 sq ft

F-2-M-3

UNCLASSIFIED

UNCLASSIFIED

3. (U) OPERATIONAL CHARACTERISTICS

- a. Turning radius
 - (1) W/winch 35-1/2 ft
 - (2) W/o winch 34-1/2 ft
- b. Speed (max permissible) 58 mph
- c. Fuel consumption 6 mpg
- d. Cruising range (highway w/o towed load) 320 miles
- e. Fording depth
 - (1) W/o kit 30 in.
 - (2) W/kit 72 in.
- f. Gradeability
 - (1) Forward slope 60%
 - (2) Side slope 40%
- g. Angle of approach
 - (1) W/winch 40°
 - (2) W/o winch 48°
- h. Angle of departure 40°
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

UNCLASSIFIED

UNCLASSIFIED

TAB N (Truck, Wrecker, 5 Ton, 6x6, M543A2) to Appendix 2 (Special Purpose/Special Equipment Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



F-2-N-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This wrecker is used to tow, salvage and recover disabled medium weight vehicles and equipment. The vehicle has been type classified Standard A and is presently in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

- | | |
|---|------------|
| a. Net weight | 37,400 lbs |
| b. Payload (towed suspended, boom braced) | |
| (1) Highway | 12,000 lbs |
| (2) Cross-country | 7,000 lbs |
| c. Crane rated lift capacities | |
| (1) 10 ft radius | |
| (a) W/o outriggers | 6,500 lbs |
| (b) W/outriggers | 10,000 lbs |
| (c) W/boom supports | 20,000 lbs |
| (2) 15 ft radius | |
| (a) W/o outriggers | 5,000 lbs |
| (b) W/outriggers | 3,800 lbs |
| (3) 18 ft radius | |
| (a) W/o outriggers | 4,000 lbs |
| (b) W/outriggers | 3,000 lbs |
| d. Towed load allowed | |
| (1) Highway | 30,000 lbs |
| (2) Cross-country | 20,000 lbs |
| e. Dimensions | |
| (1) Length | 34.7 in. |
| (2) Width | 47.8 in. |

F-2-N-2

UNCLASSIFIED

UNCLASSIFIED

(3) Height	114 in.
(4) Height, lowest operable	106 in.
(5) Wheelbase	179 in.
(6) Tread C-C	
(a) Front tires	74 in.
(b) Rear bogies	72 in.
(7) Ground clearance	
(a) Under axle	11-1/2 in.
(b) Under chassis	20-1/2 in.
f. Vehicle crew	2
g. Passengers including crew	N/A
h. Fuel	
(1) Capacity	110 gal
(2) Type	Diesel, CIE & gas
i. Electrical system	24 volt
j. Engine	6 cyl, inline, 210 hp
k. Transmission	5 forward speeds, 1 reverse speed
l. Transfer	2 speeds, high & low range
m. Axles	3
n. Wheels	10 & spare
o. Tires	
(1) Size	11.00 x 20
(2) Tread design	NDC

UNCLASSIFIED

p. Ground pressure

q. Shipping dimensions 235 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius 41 ft

b. Speed (max permissible) 52.5 mph

c. Fuel consumption 5.3 mpg

d. Cruising range 583 miles

e. Fording depth

(1) W/kit 78 in.

(2) W/o kit 30 in.

f. Gradeability

(1) Forward slope 61.4%

(2) Side slope

g. Angle of approach 37°

h. Angle of departure 34°

i. Max vertical step climbing ability

j. Vehicle mobility index

k. Vehicle cone index

F-2-N-4

UNCLASSIFIED

UNCLASSIFIED

APPENDIX 3 (Logistical Support Trailers) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)

1. (U) PURPOSE. This appendix provides the characteristics of and performance data for logistical support trailers.
2. (U) GENERAL. Logistical support trailers are not self-propelled but rely on a prime mover.

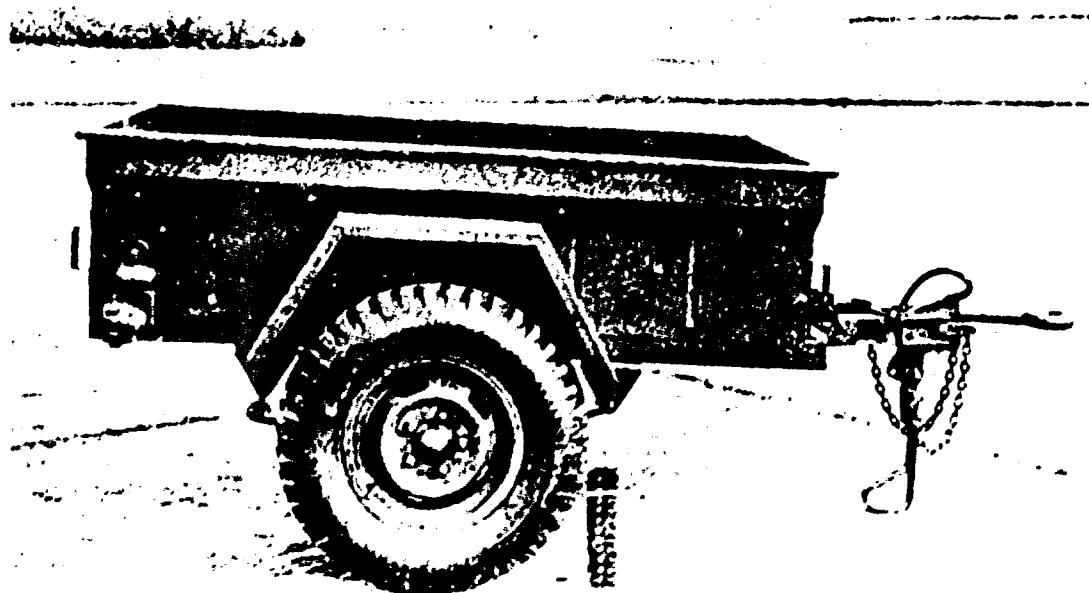
TABS:

- A. Trailer, Cargo, 1/4 Ton, 2 Wheel, M416B1
- B. Trailer, Cargo, 3/4 Ton, 2 Wheel, M101A1
- C. Trailer, Cargo, 1-1/2 Ton, 2 Wheel, M105A2
- D. Trailer, Tank, Water, 1-1/2 Ton, 400 Gal, 2 Wheel, M107A2
- E. Semitrailer, Stake and Platform, 6 Ton, 2 Wheel, M118A1
- F. Semitrailer, Stake and Platform, 12 Ton, 4 Wheel, M127A2C
- G. Semitrailer, Lowbed, 25 Ton, 4 Wheel, M172A1
- H. Semitrailer, Lowbed, Heavy Equipment, Transporter (HET) 52-1/2 Ton, 8 Wheel, XM747E2
- I. Semitrailer, Lowbed (TRACK PORTER) 52-1/2 Ton, 16 Wheel, XM793
- J. Semitrailer, Tank, Water, 2,000 Gal, 4 Wheel, M586
- K. Semitrailer, Tank, Refueler, 5,000 Gal, 4 Wheel, M131A2
- L. Dolly Trailer Converters, M197A1, M198A1, M199 and M354

UNCLASSIFIED

UNCLASSIFIED

TAB A (Trailer, Cargo, 1/4 Ton, 2 Wheel, M416B1) to Appendix 3 (Logistical Support Trailers) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968)
(U)



UNCLASSIFIED

1. (U) GENERAL. This trailer is used to haul general cargo. It is type classified Standard A and is in the Marine Corps inventory. The recommended prime mover is a 1/4 ton vehicle.

2. (U) VEHICLE CHARACTERISTICS

- | | |
|----------------------------------|-------------|
| a. Net weight | 620 lbs |
| b. Payload | |
| (1) Highway | 650 lbs |
| (2) Cross-country | 500 lbs |
| c. Payload (weight distribution) | |
| (1) Lunette eye | |
| (a) No load | 88 lbs |
| (b) Cross-country | 83 lbs |
| (c) Highway | 102 lbs |
| (2) Axle | |
| (a) No load | 532 lbs |
| (b) Cross-country | 1,037 lbs |
| (c) Highway | 1,268 lbs |
| d. Dimensions | |
| (1) Length | 108-1/2 in. |
| (2) Width | 60-1/2 in. |
| (3) Height | 43 in. |
| (4) Tread C-C | 53 in. |
| (5) Ground clearance | 13-3/8 in. |

UNCLASSIFIED

- (6) Cargo body
 - (a) Length 72 in.
 - (b) Width 41 in.
 - (c) Height 18 in.
 - (d) Area 20.5 sq ft
- e. Axles 1
- f. Wheels 2
- g. Tires
 - (1) Size 7.00 x 16
 - (2) Tread design NDCC
- h. Ground pressure
- i. Shipping dimensions 45 sq ft

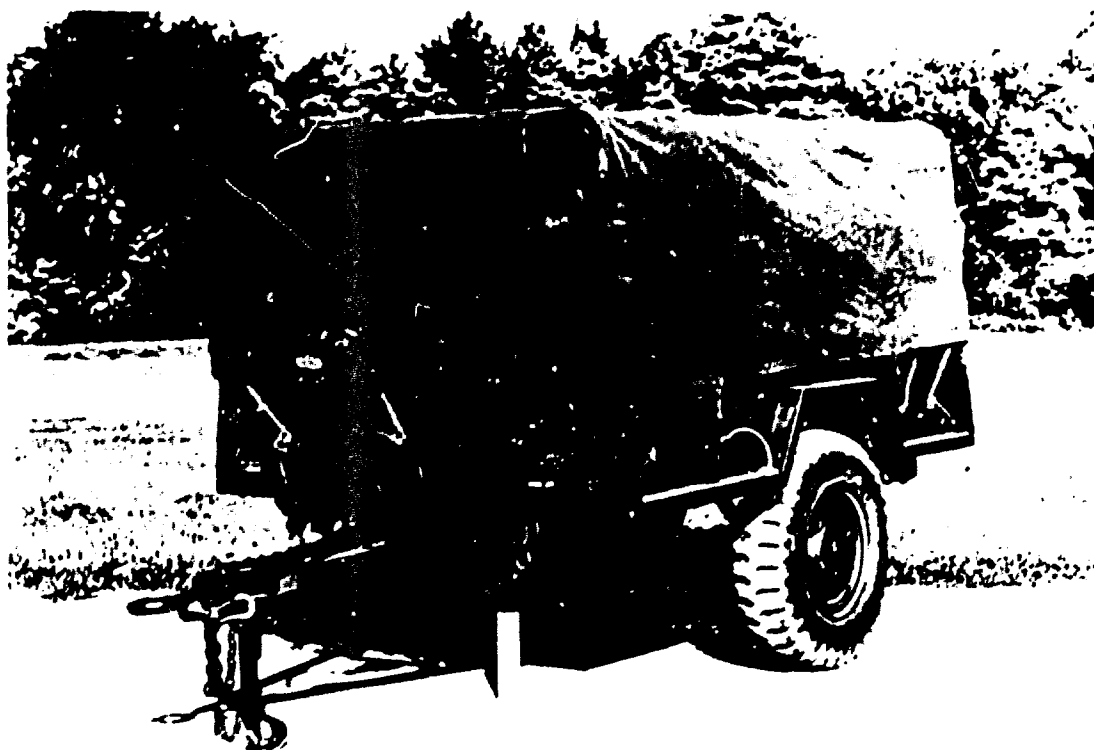
3. (U) OPERATIONAL CHARACTERISTICS

- a. Maximum towing speed
 - (1) Highway 50 mph
 - (2) Cross-country 18 mph
- b. Fording Floats w/1/4 ton load
- c. Angle of departure 36°

UNCLASSIFIED

UNCLASSIFIED

TAB B (Trailer, Cargo, 3/4 Ton, 2 Wheel, M101A1) to Appendix 3 (Logistical Support Trailers) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



F-3-B-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. The trailer is used for hauling cargo on and off highways. It is presently in the Marine Corps and is type classified Standard A. The recommended prime mover is the 1-1/4 ton truck.

2. (U) VEHICLE CHARACTERISTICS

- a. Net weight 1,340 lbs
- b. Payload
 - (1) Highway 2,250 lbs
 - (2) Cross-country 1,500 lbs
- c. Payload (weight distribution)
 - (1) Lunette eye
 - (a) No load 99 lbs
 - (b) Cross-country 172 lbs
 - (c) Highway 197 lbs
 - (2) Axle
 - (a) No load 1,225 lbs
 - (b) Cross-country 2,640 lbs
 - (c) Highway 3,360 lbs
- d. Dimensions
 - (1) Length 147 in.
 - (2) Width 73-1/2 in.
 - (3) Height 83 in.
 - (4) Height, lowest operable 50 in.
 - (5) Tread C-C 62 in.
 - (6) Ground clearance 16-1/8 in.

UNCLASSIFIED

(7) Cargo body

(a) Length 94-1/4 in.

(b) Width

1 Inside body 66 in.

2 Between wheel wells 45-1/2 in.

(c) Height

1 Steel body 18 in.

2 Wood side racks 33-3/4 in.

3 W/bows 50 in.

(d) Area 35 sq ft

(e) Capacity 140 cu ft

e. Axles 1

f. Wheels 2

g. Tires

(1) Size 9.00 x 16

(2) Tread design NDCC

h. Ground pressure

i. Shipping dimensions 74 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

a. Maximum towing speed

(1) Highway 50 mph

(2) Cross-country 30 mph

b. Forging depth 30 in.

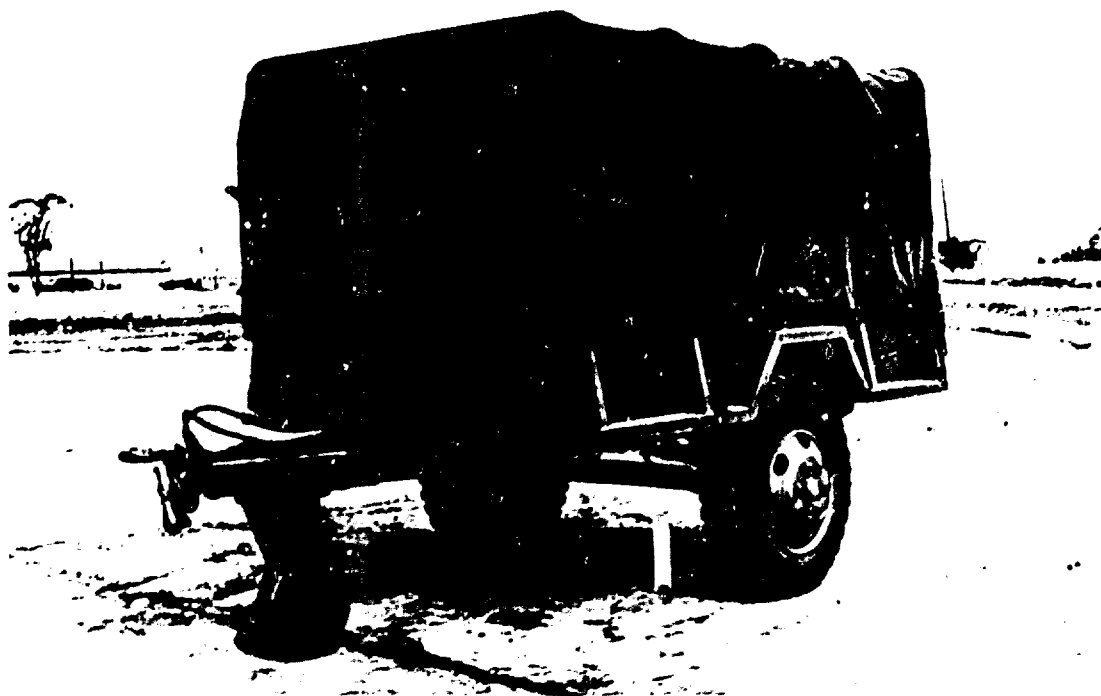
c. Angle of departure 33°

F-3-B-3

UNCLASSIFIED

UNCLASSIFIED

TAB C (Trailer, Cargo, 1-1/2 Ton, 2 Wheel, M105A2) to Appendix 3 (Logistical Support Trailers) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

1. (U) GENERAL. This trailer is used to haul cargo on and off highways.

It is presently in the Marine Corps inventory and is type classified

Standard A. The recommended prime mover is a 2-1/2 ton truck.

2. (U) VEHICLE CHARACTERISTICS

- | | |
|----------------------------------|-------------|
| a. Net weight | 2,750 lbs |
| b. Payload | |
| (1) Highway | 4,500 lbs |
| (2) Cross-country | 3,000 lbs |
| c. Payload (weight distribution) | |
| (1) Lunette eye | |
| (a) No load | 233 lbs |
| (b) Cross-country | 368 lbs |
| (c) Highway | 425 lbs |
| (2) Axle | |
| (a) No load | 2,517 lbs |
| (b) Cross-country | 5,382 lbs |
| (c) Highway | 6,815 lbs |
| d. Dimensions | |
| (1) Length | 166-1/2 in. |
| (2) Width | 88 in. |
| (3) Height | 98 in. |
| (4) Height, lowest operable | 55 in. |
| (5) Tread C-C | 67-3/8 in. |

F-3-C-2

UNCLASSIFIED

UNCLASSIFIED

- (6) Ground clearance
 - (a) Amidships 30-1/4 in.
 - (b) Under axle 16-1/8 in.
 - (7) Cargo body
 - (a) Length 110 in.
 - (b) Width
 - 1 Inside body 74 in
 - 2 Between wheel wells 54 in.
 - (c) Height
 - 1 Steel body 18 in.
 - 2 Wood side racks 45 in.
 - 3 W/bows 60 in.
 - (d) Area 54 sq ft
 - (e) Capacity 270 cu ft
 - e. Axles 1
 - f. Wheels 2
 - g. Tires
 - (1) Size 9.00 x 20
 - (2) Tread design NDCC
 - h. Ground pressure
 - i. Shipping dimensions 101.8 sq ft
3. (U) OPERATIONAL CHARACTERISTICS
- a. Maximum towing speed
 - (1) Highway 50 mph
 - (2) Cross-country 20 mph

UNCLASSIFIED

1

UNCLASSIFIED

b. Fording depth

Submersible for
15 minutes

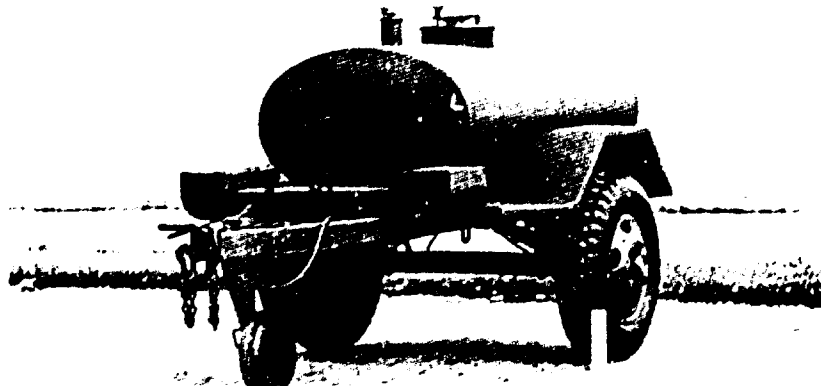
c. Angle of departure

30^o

UNCLASSIFIED

UNCLASSIFIED

TAB D (Trailer, Tank, Water, 1-1/2 Ton, 400 Gal, 2 Wheel, M107A2)
to Appendix 3 (Logistical Support Trailers) to Annex F (Vehicle
Characteristics and Descriptions) to First Interim Report on
Tactical Mobility for Amphibious Assault and Post Assault Oper-
ations in the Mid-Range Period (FY 1970-79) (CMC Project No.
30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

1. (U) GENERAL. This trailer is used to transport, store and dispense potable water. It is presently in the Marine Corps inventory and is type classified Standard A or B. The recommended prime mover is a 2-1/2 ton truck.

2. (U) VEHICLE CHARACTERISTICS

- | | |
|----------------------------------|-------------|
| a. Net weight | 2,280 lbs |
| b. Payload | |
| (1) Highway | 5,500 lbs |
| (2) Cross-country | 3,000 lbs |
| c. Payload (weight distribution) | |
| (1) Lunette eye | |
| (a) No load | 270 lbs |
| (b) Cross-country | 270 lbs |
| (c) Highways | 270 lbs |
| (2) Axle | |
| (a) No load | 2,010 lbs |
| (b) Cross-country | 5,345 lbs |
| (c) Highway | 5,345 lbs |
| d. Dimensions | |
| (1) Length | 163-1/8 in. |
| (2) Width | 82-1/4 in. |
| (3) Height | 76-3/4 in. |
| (4) Tread C-C | 67-5/8 in. |
| e. Electrical system | 24 volt |
| f. Axles | 1 |

UNCLASSIFIED

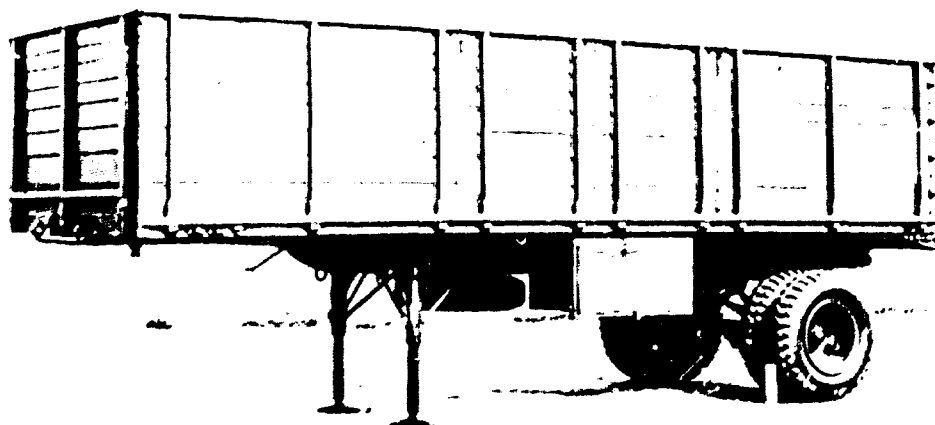
UNCLASSIFIED

- | | |
|---|-----------------|
| g. Wheels | 2 |
| h. Tires | |
| (1) Size | 9.00 x 20 |
| (2) Tread design | NDCC |
| i. Ground pressure | |
| j. Shipping dimensions | 93.3 sq ft |
| 3. (U) <u>OPERATIONAL CHARACTERISTICS</u> | |
| a. Speed (max permissible) | 55 mph |
| b. Fording | Submersible |
| c. Angle of departure | 32 ^o |
| d. Vehicle mobility index | |
| e. Vehicle cone index | |

UNCLASSIFIED

UNCLASSIFIED

TAB E (Semitrailer, Stake and Platform, 6 Ton, 2 Wheel, M118A1) to Appendix 3 (Logistical Support Trailers) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-03 of 10 December 1968) (U)



UNCLASSIFIED

1. (U) GENERAL. This semitrailer is a general cargo carrier intended for use on the highway or cross-country. It consists of a stake rack body with removable stakes mounted on a semitrailer chassis. This vehicle is type classified Standard A and presently in the Marine Corps inventory. The recommended prime mover is the 2-1/2 ton truck w/dolly trailer converter (Annex F, Appendix 3, Tab L).

2. (U) VEHICLE CHARACTERISTICS

- a. Net weight 7,100 lbs
- b. Payload
 - (1) Highway 16,200 lbs
 - (2) Cross-country 12,100 lbs
- c. Payload (weight distribution)
 - (1) Fifth wheel
 - (a) No load 2,350 lbs
 - (b) Cross-country 7,500 lbs
 - (c) Highway 9,380 lbs
 - (2) Axle
 - (a) No load 4,750 lbs
 - (b) Cross-country 11,540 lbs
 - (c) Highway 13,920 lbs
- d. Dimensions
 - (1) Length 274-3/4 in.
 - (2) Width 94-11/16 in.
 - (3) Height 102-3/16 in.
 - (4) Height, lowest operable, no load 55 in.

UNCLASSIFIED

- (5) Tread C-C 70 in.
- (6) Ground clearance
 - (a) Under landing supports 18 in.
 - (b) Under axle 17 in.
- (7) Cargo body
 - (a) Length 268-7/8 in.
 - (b) Width 88-13/16 in.
 - (c) Rack height 48 in.
 - (d) Area 150 sq ft
 - (e) Capacity 1,113 cu ft
- e. Axles 1
- f. Wheels 4 & spare
- g. Tires
 - (1) Size 9.00 x 20
 - (2) Tread design NDCC
- h. Ground pressure
- i. Shipping dimensions 191 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

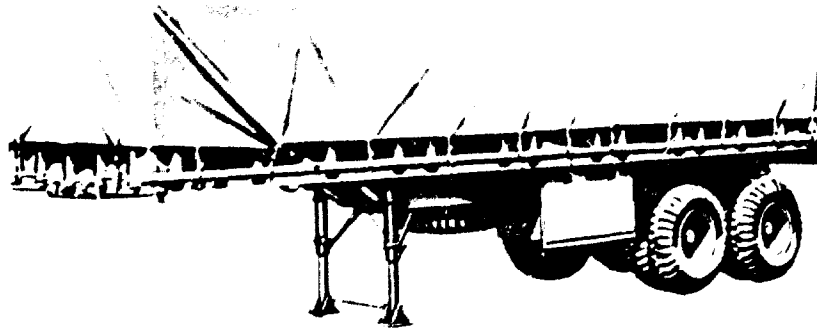
- a. Maximum towing speed
 - (1) Highway 50 mph
 - (2) Cross-country 20 mph
- b. Fording depth 55 in.
- c. Angle of departure 40°

F-3-E-3

UNCLASSIFIED

UNCLASSIFIED

TAB F (Semitrailer, Stake and Platform, 12 Ton, 4 Wheel, M127A2C) to Appendix 3 (Logistical Support Trailers) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This semitrailer is used to transport general cargo on highways and cross-country. It consists of a stake rack body with removable stakes mounted on a semitrailer chassis. This vehicle is type classified Standard A and is in the Marine Corps inventory. The recommended prime mover is a 5 ton tractor, however a 5 ton cargo truck with a dolly trailer converter can be the prime mover.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	14,240 lbs
b. Payload	
(1) Highway	36,000 lbs
(2) Cross-country	24,000 lbs
c. Payload (weight distribution)	
(1) Fifth wheel	
(a) Cross-country	14,740 lbs
(b) Highway	20,040 lbs
(2) Axles	
(a) Cross-country	23,500 lbs
(b) Highway	30,200 lbs
d. Dimensions	
(1) Length	344-1/4 in.
(2) Width	96 in.
(3) Height	105-1/2 in.
(4) Height lowest operable no load	57-1/2 in.
(5) Tread C-C	72 in.

UNCLASSIFIED

(6) Ground clearance

- (a) Under axle 17 in.
- (b) Under landing supports 15 in.

(7) Cargo body

- (a) Length 335-13/16 in.
- (b) Width 38-13/16 in.
- (c) Rack height 48 in.
- (d) Area
- (e) Capacity

- e. Axles 2
- f. Wheels 8 & spare
- g. Tires
 - (1) Size 11.00 x 20
 - (2) Tread design NDCC
- h. Ground pressure
- i. Shipping dimensions 230 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

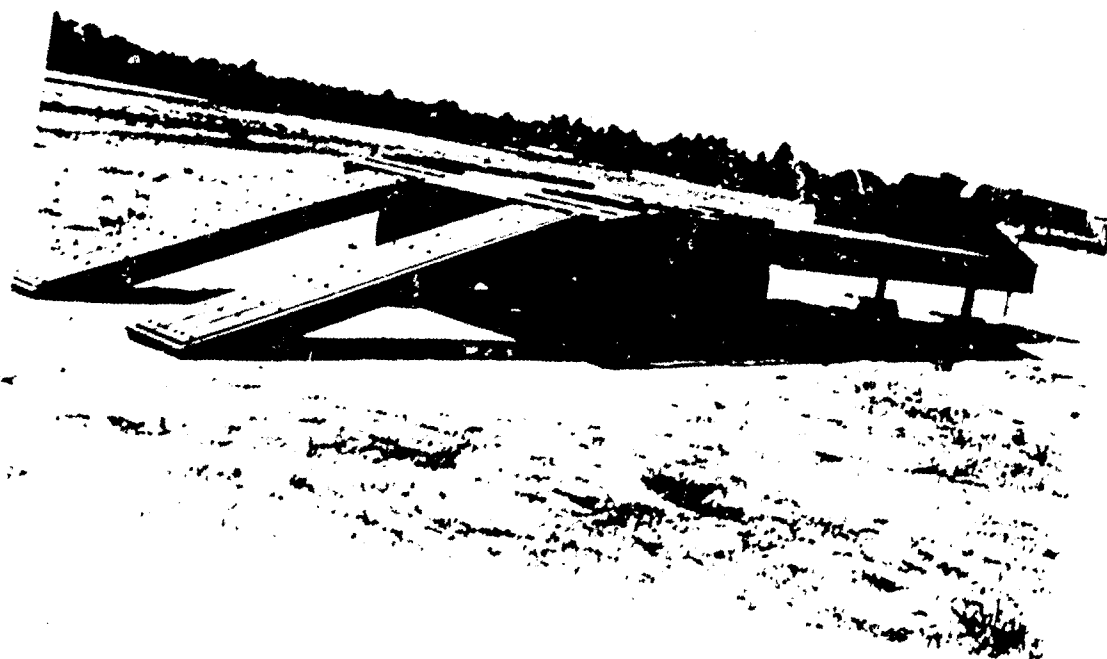
- a. Maximum towing speed
 - (1) Highway 50 mph
 - (2) Cross-country 30 mph
- b. Fording depth 55 in.
- c. Angle of departure 50°

F-3-F-3

UNCLASSIFIED

UNCLASSIFIED

TAB C (Semitrailer, Lowbed, 25 Ton, 4 Wheel, M172A1) to Appendix 3
(Logistical Support Trailers) to Annex F (Vehicle Character-
istics and Descriptions) to First Interim Report on Tactical
Mobility for Amphibious Assault and Post Assault Operations
in the Mid-Range Period (FY 1970-75) (CMC Project No. 30-68-08
of 10 December 1968) (U)



F-3-C-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This lowbed is currently in the Marine Corps inventory and type classified Standard A. It is used to transport engineer equipment or tracked machinery. The recommended prime movers are either the M52A2, 5 ton tractor for loads to 15 tons or the M123A2 for loads to 25 tons.

2. (U) VEHICLE CHARACTERISTICS

- | | |
|----------------------------------|-------------|
| a. Net weight | 16,600 lbs |
| b. Payload | |
| (1) Highway | 60,000 lbs |
| (2) Cross-country | 50,000 lbs |
| c. Payload (weight distribution) | |
| (1) Fifth wheel | |
| (a) Cross-country | 24,594 lbs |
| (b) Highway | 25,588 lbs |
| (2) Axles | |
| (a) Cross-country | 41,606 lbs |
| (b) Highway | 51,012 lbs |
| d. Dimensions | |
| (1) Length | 411-1/4 in. |
| (2) Width | 115 in. |
| (3) Height | 68 in. |
| (4) Tread C-C | 82-7/16 in. |
| (5) Ground clearance | |
| (a) Amidships | 25-1/2 in. |
| (b) Under axles | 25-1/2 in. |

UNCLASSIFIED

- (c) Length 192 in.
- (d) Width 115 in.
- e. Axles 2
- f. Wheels 8 & spare
- g. Tires
 - (1) Size 11.00 x 15
 - (2) Tread design NDCC
- h. Ground pressure
- i. Shipping dimensions

3. (U) OPERATIONAL CHARACTERISTICS

- a. Maximum towing speed
 - (1) Highway 30 mph
 - (2) Cross-country 10 mph
- b. Fording depth 5 ft
- c. Angle of departure 45°

UNCLASSIFIED

UNCLASSIFIED

TAB H (Semitrailer, Lowbed, Heavy Equipment, Transporter (HET) 52-1/2 Ton, 8 Wheel, EM747E2) to Appendix 3 (Logistical Support Trailers) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

1. (U) GENERAL. This trailer will be used for transporting heavy tracked, and wheeled vehicles from ports, railheads, depots and places of disablement to maintenance areas. The prime mover is the XM746 tractor (Tab J, Appendix 3).

2. (U) VEHICLE CHARACTERISTICS

- | | |
|------------------------|---------------|
| a. Net weight | 33,514 lbs |
| b. Payload | |
| (1) Highway | 105,000 lbs |
| (2) Cross-country | |
| c. Dimensions | |
| (1) Length | 509.75 in. |
| (2) Width | 137 in. |
| (3) Height | 44 in. |
| (4) Tread C-C | |
| (5) Ground clearance | 15.02 in. |
| (6) Cargo body | |
| (a) Length | |
| (b) Width | |
| (c) Area | |
| d. Axles | 4 |
| e. Wheels | 13 & 2 spares |
| f. Tires | |
| (1) Size | 19.5 x 15 |
| (2) Tread design | NDCC |
| g. Ground pressure | |
| h. Shipping dimensions | |

UNCLASSIFIED

UNCLASSIFIED

3. (U) OPERATIONAL CHARACTERISTICS

a. Maximum towing speed

(1) Highway

(2) Cross-country

b. Fording depth

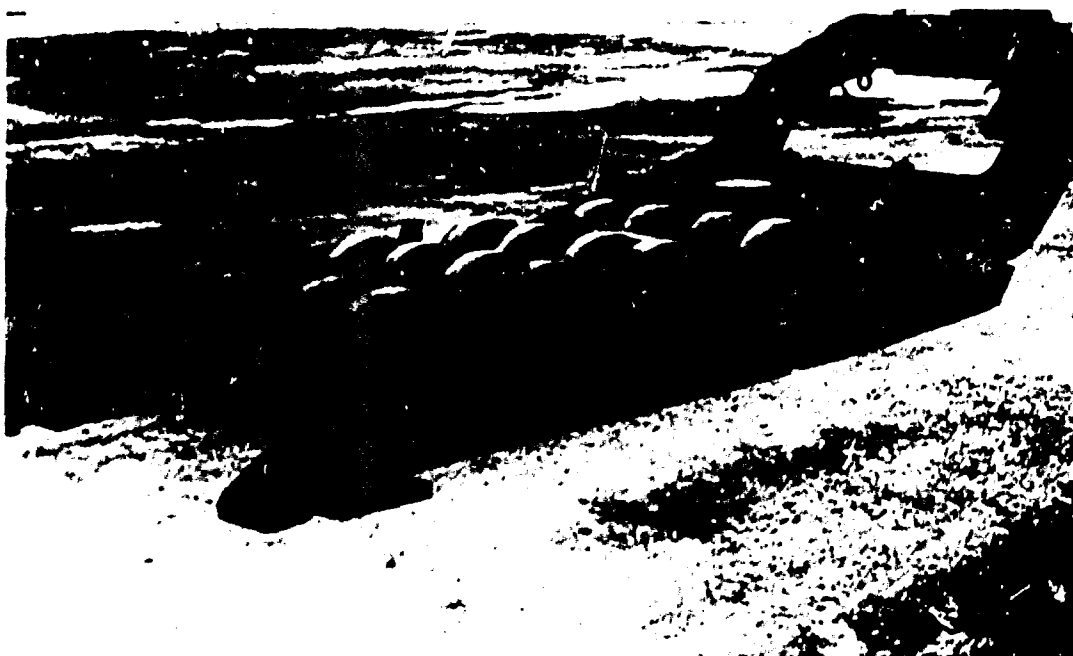
c. Angle of departure

F-3-H-3

UNCLASSIFIED

UNCLASSIFIED

TAB 1 (Semitrailer, Lowbed (TRACK PORTER) 52-1/2 Ton, 16 Wheel, XM793)
to Appendix 3 (Logistical Support Trailers) to Annex F (Vehicle
Characteristics and Descriptions) to First Interim Report on
Tactical Mobility for Amphibious Assault and Post Assault Oper-
ations in the Mid-Range Period (FY 1970-79) (CMC Project No.
30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This tank transporter was designed to transport M60 series tanks over improved and secondary roads. At reduced performance, the trackporter can also transport the M88 recovery vehicle and the M103 tank. This semitrailer is unique in that it is comprised of forward and trail units suspended by four independent walking beam assemblies. The two trail units are connected by a center pivot which allows the semitrailer to articulate or flex freely. The present status is limited production. The prime mover is a 10 to 25 ton truck tractor.

2. (U) VEHICLE CHARACTERISTICS

- a. Net weight 17,220 lbs
- b. Payload 105,780 lbs
- c. Payload (weight distribution)
 - (1) Fifth wheel 25,000 lbs
 - (2) 1st Axle 25,000 lbs
 - (3) 2nd Axle 25,000 lbs
 - (4) 3rd Axle 24,000 lbs
 - (5) 4th Axle 24,000 lbs
- d. Dimensions
 - (1) Length 366-3/8 in.
 - (2) Width 124 in.
 - (3) Height 87 in.
 - (4) Tread
 - (a) Inner 24 in.
 - (b) Outer 64 in.
 - (5) Ground clearance 12 in.

UNCLASSIFIED

e. Axles	3
f. Wheels	16 & spare
g. Tires	
(1) Size	14.00 x 17.5
(2) Design	Transport
h. Ground pressure	
i. Shipping dimensions	310 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

a. Maximum towing speed	38 mph
b. Fording depth	Dependent on prime mover
c. Angle of departure	20 ^o

UNCLASSIFIED

UNCLASSIFIED

TAB J (Semitrailer, Tank, Water, 2,000 Gal, 4 Wheel, M586) to Appendix 3 (Logistical Support Trailers) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility in Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)

NO PICTURE AVAILABLE

F-3-J-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This trailer is used for storing and transporting potable water. It has a two-compartment aluminum tank with a heating system. This vehicle is type classified Standard A but is not presently in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	6,424 lbs
b. Payload	
(1) Highway	16,600 lbs
(2) Cross-country	
c. Payload (weight distribution)	
(1) Fifth wheel	9,690 lbs
(2) Bogle	13,334 lbs
d. Dimensions	
(1) Length	247.5 in.
(2) Width	95 in.
(3) Height	94.5 in.
(4) Wheelbase	197 in.
(5) Tread C-C	70 in.
(6) Ground clearance	17 in.
e. Electrical system	24 volt
f. Axle	1
g. Wheels	4 & spare
h. Tires	
(1) Size	9.00 x 20
(2) Tread design	NDCC

UNCLASSIFIED

- i. Ground pressure
- j. Shipping dimensions

3. (U) OPERATIONAL CHARACTERISTICS

a. Maximum towing speed

- | | |
|-------------------|--------|
| (1) Highway | 50 mph |
| (2) Secondary | 35 mph |
| (3) Cross-country | 10 mph |

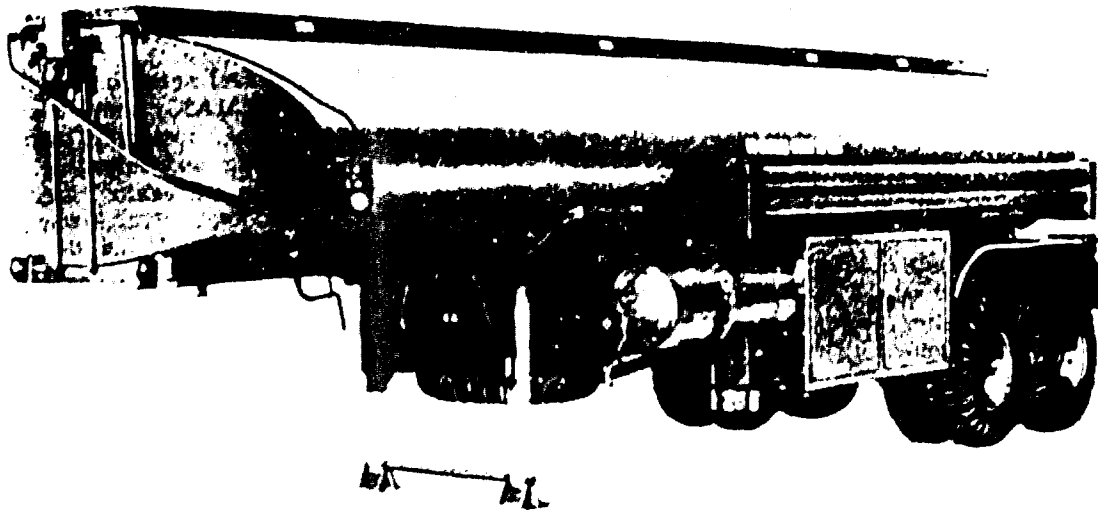
b. Fording depth 15 in.

c. Angle of departure

UNCLASSIFIED

UNCLASSIFIED

TAB K (Semitrailer, Tank, Refueler, 5,000 Gal, 4 Wheel, M131A2) to Appendix 3 (Logistical Support Trailers) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



F-3-K-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. These trailers are both in the Marine Corps inventory and type classified as Standard A. The M131A2 has a steel tank and is limited to motor fuel. The M131A4C has an aluminum tank and is used for aviation refueling. The recommended prime mover is a 5 ton tractor.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

(1) M131A2	12,400 lbs
(2) M131A4C	13,850 lbs

b. Payload

(1) Highway

(a) M131A2	30,500 lbs
(b) M131A4C	35,250 lbs

(2) Cross-country

(a) M131A2	20,344 lbs
(b) M131A4C	23,265 lbs

c. Payload (weight distribution)

(1) Fifth wheel

(a) No load

<u>1</u> M131A2	3,500 lbs
<u>2</u> M131A4C	3,700 lbs

(b) Cross-country

<u>1</u> M131A2	11,724 lbs
<u>2</u> M131A4C	13,795 lbs

(c) Highway

<u>1</u> M131A2	16,700 lbs
<u>2</u> M131A4C	18,900 lbs

UNCLASSIFIED

UNCLASSIFIED

(2) Axle

(a) No load

1 M131A2 8,900 lbs

2 M131A4C 10,150 lbs

(b) Cross-country

1 M131A2 21,020 lbs

2 M131A4C 23,320 lbs

(c) Highway

1 M131A2 26,200 lbs

2 M131A4C 30,200 lbs

d. Dimensions*

(1) Length 381-11/16 in.

(2) Width 96-3/4 in.

(3) Height 107-5/8 in.

(4) Tread C-C 72 in.

(5) Ground clearance under legs 15-3/8 in.

(6) Fuel tank capacity 5,000 gal
(4 1,250 gal compartments)

e. Axles* 2

f. Wheels* 8 & spare

g. Tires*

(1) Size 11.00 x 20

(2) Tread design NDCC

h. Ground pressure*

*Figures are applicable to both M131A2 and M131A4C vehicles

F-3-K-3

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i. Shipping dimensions*

236 sq ft

3. (U) OPERATIONAL CHARACTERISTICS*

a. Maximum towing speed

(1) Highway

50 mph

(2) Cross-country

30 mph

b. Fording depth

24 in.

c. Angle of departure

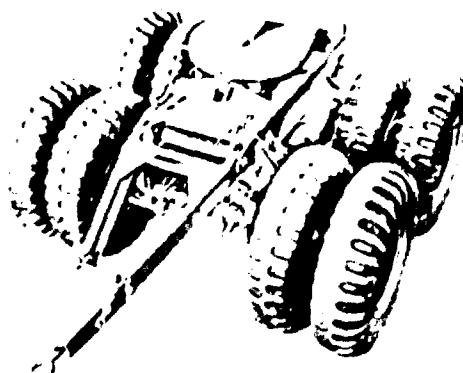
72°

F-3-K-4

UNCLASSIFIED

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TAB L (Dolly Trailer Converters, M197A1, M198A1, M199 and M354) to Appendix 3 (Logistical Support Trailers) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



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1. (U) GENERAL. These converters vary in size and load capacity. They are designed to convert semitrailers to full trailers and are equipped with a lunette for attachment to the towing vehicle. The four dollies listed are type classified Standard A except for the M199 which is type classified Standard B and are in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

(1) M197A1 (6 ton)	2,970 lbs
(2) M198A1 (8 ton)	3,500 lbs
(3) M199 (18 ton)	7,700 lbs
(4) M354 (15 ton)	6,100 lbs

b. Payload

(1) Highway	
(a) M197A1	12,000 lbs
(b) M198A1	16,000 lbs
(c) M199	36,000 lbs
(d) M354	30,000 lbs
(2) Cross-country	
(a) M197A1	12,000 lbs
(b) M198A1	16,000 lbs
(c) M199	24,000 lbs
(d) M354	30,000 lbs

c. Tires

(1) Size	
(a) M197A1	9.00 x 20
(b) M198A1	11.00 x 20

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(c) M199

14.00 x 20

(d) M354

11.00 x 20

(2) Type

(a) M197A1

NDCC

(b) M198A1

NDCC

(c) M199

NDCC

(d) M354

NDCC

(3) Quantity

(a) M197A1

4

(b) M198A1

4

(c) M199

8

(d) M354

8

(4) Tread C-C

(a) M197A1

70 in.

(b) M198A1

72 in.

(c) M199

82 in.

(d) M354

72 in.

d. Dimensions

(1) Length

(a) M197A1

112 in.

(b) M198A1

120 in.

(c) M199

144 in.

(d) M354

144-3/8 in.

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(2) Width

(a) M197A1	92-5/8 in.
(b) M198A1	96-3/4 in.
(c) M199	114-3/4 in.
(d) M354	97-1/4 in.

(3) Height

(a) M197A1	51-7/8 in.
(b) M198A1	52 in.
(c) M199	59 in.
(d) M354	60 in.

(4) Ground clearance

(a) M197A1	17-1/2 in.
(b) M198A1	19 in.
(c) M199	19 in.
(d) M354	10-5/8 in.

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APPENDIX 4 (High Mobility Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)

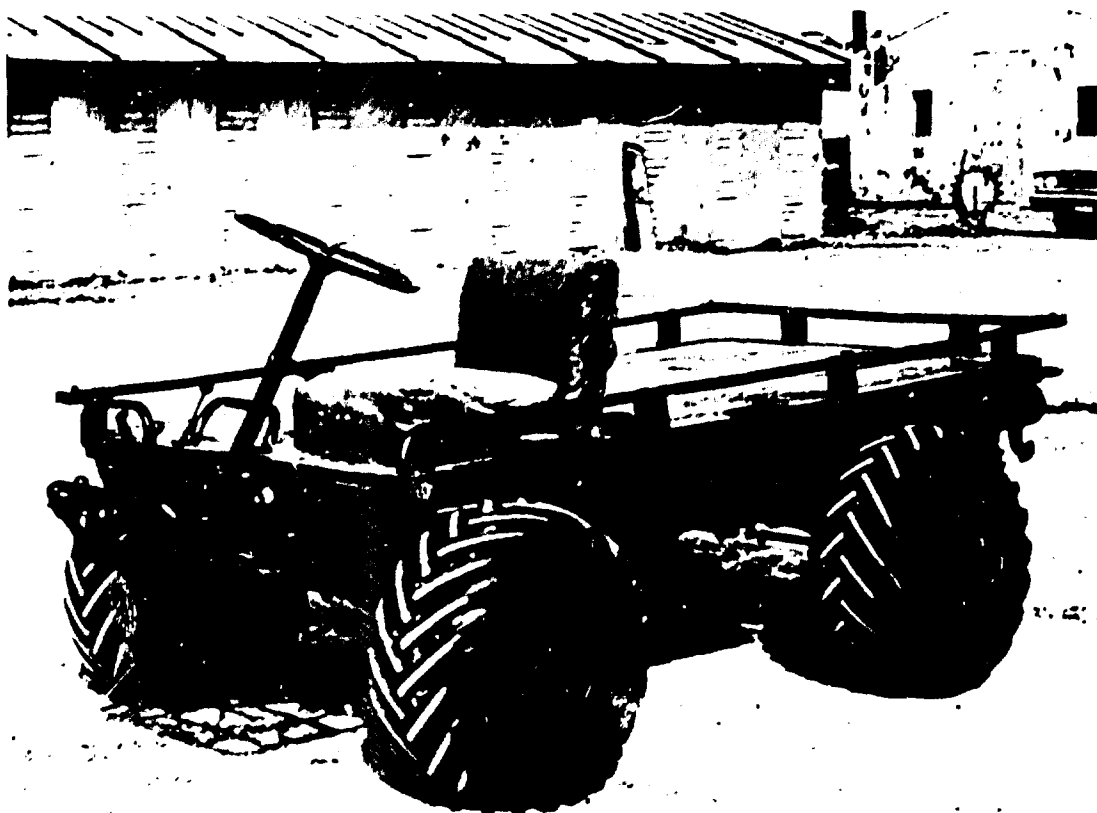
1. (U) PURPOSE. This appendix provides characteristics of and performance data for high mobility vehicles.
2. (U) GENERAL. High mobility vehicles possess a high degree of mobility over various terrain features and may include a swimming capability. These vehicles are designed primarily for off-road operations.

TABS:

- A. Truck, Platform, Utility, 1/2 Ton, 4x4, M274A5
- B. Multipurpose, Airmobile, Combat Support, Vehicle (MACV), 1/2 Ton, 8x8
- C. Amphibious, Infantry, Support, Vehicle (AISV), 1/2 Ton, Tracked
- D. Truck, Cargo, Articulated, 1-1/4 Ton, 6x6, M561
- E. Carrier, Utility, Articulated, 1 Ton, Tracked, XM571
- F. Truck, Cargo, 5 Ton, 8x8, M656
- G. Truck, Cargo, 8 Ton, 4x4, M520
- H. Truck, Wrecker, 10 Ton, 4x4, M553
- I. Truck, Fuel, Servicing, 2,500 Gal, 4x4, M559
- J. Carrier, Cargo, Amphibious, 1-1/2 Ton, Tracked, M116
- K. Carrier, Cargo, Soft Tire, 1-1/2 Ton, Tracked, XM759E1

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TAB A (Truck, Platform Utility, 1/2 Ton, 4x4, M274A5) to Appendix 4 (High Mobility Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1907-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



F-4-A-1

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1. (U) GENERAL. This truck is a light weight cargo vehicle used to carry ammunition and supplies for the infantryman. It also serves as a weapon's platform mounting the 106mm recoilless rifle. The vehicle is highly mobile and maneuverable. It is type classified Standard A.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	970 lbs
b. Payload	1,000 lbs
c. Dimensions	
(1) Length	118.25 in.
(2) Width	49.75 in.
(3) Height	49.12 in.
(4) Height, lowest operable	28.62 in.
(5) Wheelbase	57 in.
(6) Tread C-C	40.5 in.
(7) Ground clearance	8.5 in.
(8) Cargo body	
(a) Length	96 in.
(b) Width	46 in.
(c) Area	25.5 sq ft
d. Vehicle crew	1
e. Fuel	
(1) Capacity	8.5 gal
(2) Type	Gas
f. Electrical system	Magneto
g. Engine	2 cyl, 13.5 hp

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h. Transmission	3 speed
i. Transfer	2 speed
j. Axles	2
k. Wheels	4
l. Tires	
(1) Size	7.50 x 10
(2) Tread design	NDCC
m. Ground pressure	5.9 psi
n. Shipping dimensions	40.8 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

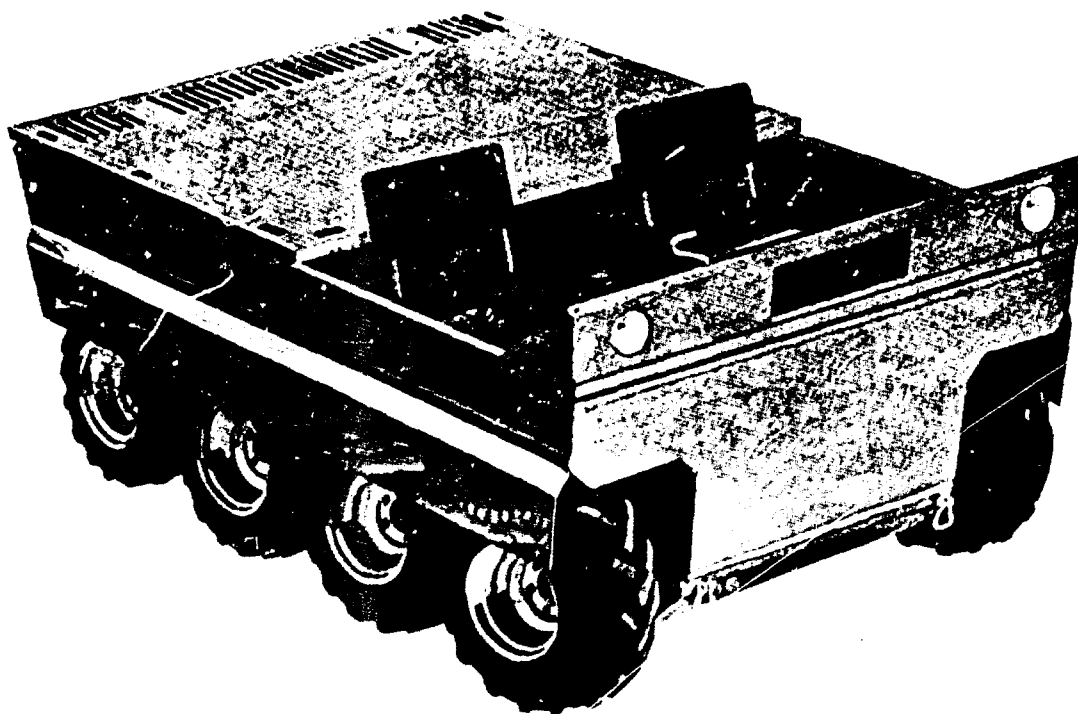
a. Turning radius	44.5 ft
b. Speed (max permissible)	25 mph
c. Fuel consumption	9.25 mpg
d. Cruising range (highway w/o towed load)	78.6 miles
e. Fording depth	18 in.
f. Gradeability	
(1) Forward slope	60%
(2) Side slope	40%
g. Angle of approach	40°
h. Angle of departure	34°
i. Max vertical step climbing ability	
j. Mobility index	
k. Vehicle cone index	

F-4-A-3

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TAB B (Multipurpose, Airmobile, Combat Support, Vehicle (MACV), 1/2 Ton) to Appendix 4 (High Mobility Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

1. (U) GENERAL. This vehicle is undergoing evaluation by the Marine Corps Development Center as a potential candidate for the 1/2 ton vehicle program.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	1,750 lbs
b. Payload (including 2 man crew)	1,000 lbs
c. Towed load allowed	
d. Dimensions	
(1) Length	96 in.
(2) Width	60 in.
(3) Height	40 in.
(4) Height, lowest operable	
(5) Tread C-C	46 in.
(6) Ground clearance	6.5 in.
(7) Cargo body	
(a) Length	49 in.
(b) Width	60 in.
(c) Area	22 sq ft
e. Vehicle crew	2
f. Passengers, including crew	
g. Fuel	
(1) Capacity	10 gal
(2) Type	Gas
h. Electrical system	12 volt
i. Engine	4 cyl, 30 hp
j. Transmission	2 Hydrostatic

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- k. Axles 8
- l. Wheels 8
- m. Tires
 - (1) Size 23 x 8.50
 - (2) Tread design
- n. Ground pressure
 - (1) W/wheels 3.5 psi
 - (2) W/track 2.25 psi
- o. Shipping dimensions
 - (1) W/winch
 - (2) W/o winch 40 sq ft
- 3. (U) OPERATIONAL CHARACTERISTICS
 - a. Turning radius Pivot (infinitely variable)
 - b. Speed (max permissible)
 - (1) Land 25 mph
 - (2) Water 2.5 mph
 - c. Fuel consumption 10 mpg
 - d. Cruising range (highway w/o towed load) 100 miles
 - e. Fording Swimmer
 - f. Gradeability
 - (1) Forward slope 70%
 - (2) Side slope 50%
 - g. Angle of approach

F-4-B-3

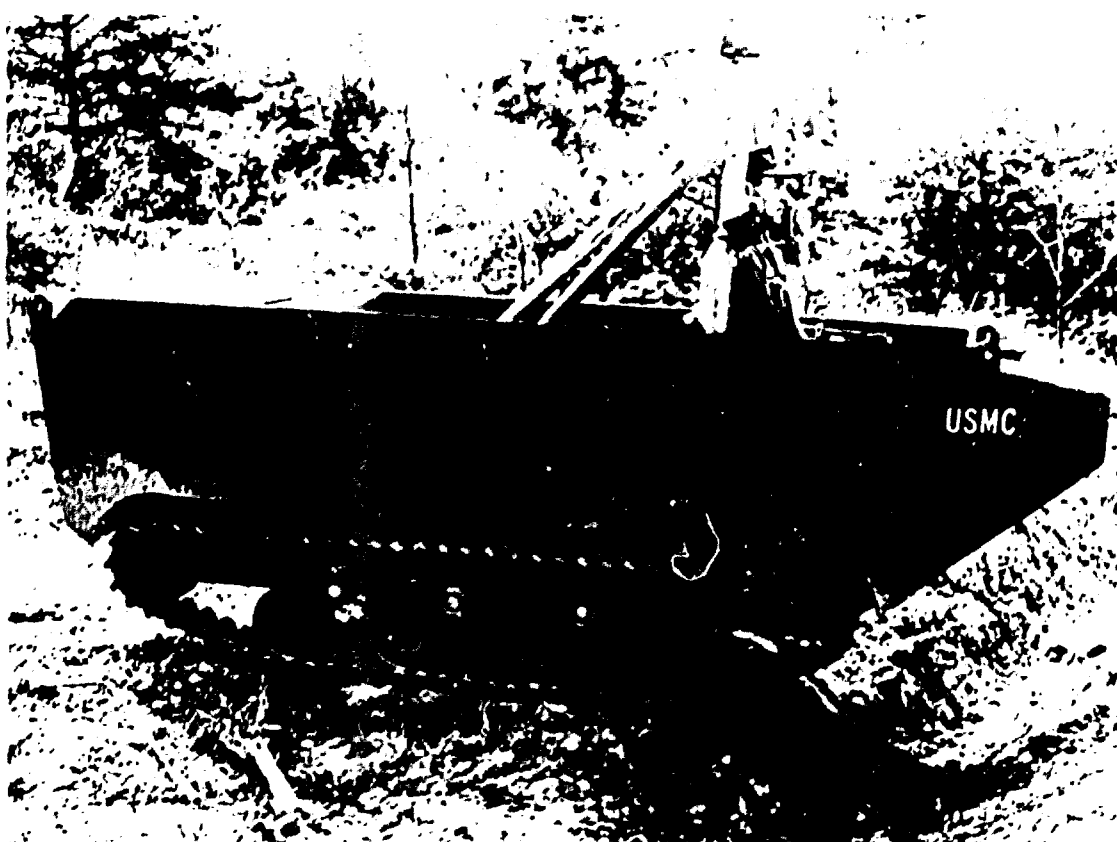
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- h. Angle of departure
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

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TAB C (Amphibious, Infantry, Support, Vehicle (AISV), 1/2 Ton, Tracked)
to Appendix 4 (High Mobility Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-62-08 of 10 December 1968) (U)



UNCLASSIFIED

1. (U) GENERAL. This vehicle is undergoing evaluation by the Marine Corps Development Center as a potential candidate for the 1/2 ton vehicle program.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	3,000 lbs
b. Payload	1,500 lbs
c. Towed load allowed	
d. Dimensions	
(1) Length	130 in.
(2) Width	70 in.
(3) Height	80 in.
(4) Height, lowest operable	48 in.
(5) Wheelbase	70 in.
(6) Track C-C	56 in.
(7) Ground clearance	12 in.
(8) Cargo body	
(a) Length	68 in.
(b) Width	70 in.
(c) Area	35 sq ft
e. Vehicle crew	1
f. Passengers, including crew	
g. Fuel	
(1) Capacity	20 gal
(2) Type	Gas

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- h. Electrical system
 - i. Engine4 cyl, 72 hp
 - j. Transmission3 speed automatic
 - k. Axles12
 - l. Wheels8 road wheels,
2 idler wheels,
2 driving sprockets
 - m. Track2 @ 14 in. wide
 - n. Ground pressure (1 in. penetration)2.0 psi
 - o. Shipping dimensions62.6 sq ft
3. (U) OPERATIONAL CHARACTERISTICS
- a. Turning radius
 - (1) Land10.5 ft
 - (2) Water35 ft
 - b. Speeds (max permissible)
 - (1) Land30 mph
 - (2) Water4.5 mph
 - c. Fuel consumption
 - (1) Land5 mpg
 - (2) Water1 mph
 - d. Cruising range
 - (1) Land100 miles @
25 mph
 - (2) Water20 miles
 - e. FordingSwimmer

F-4-C-3

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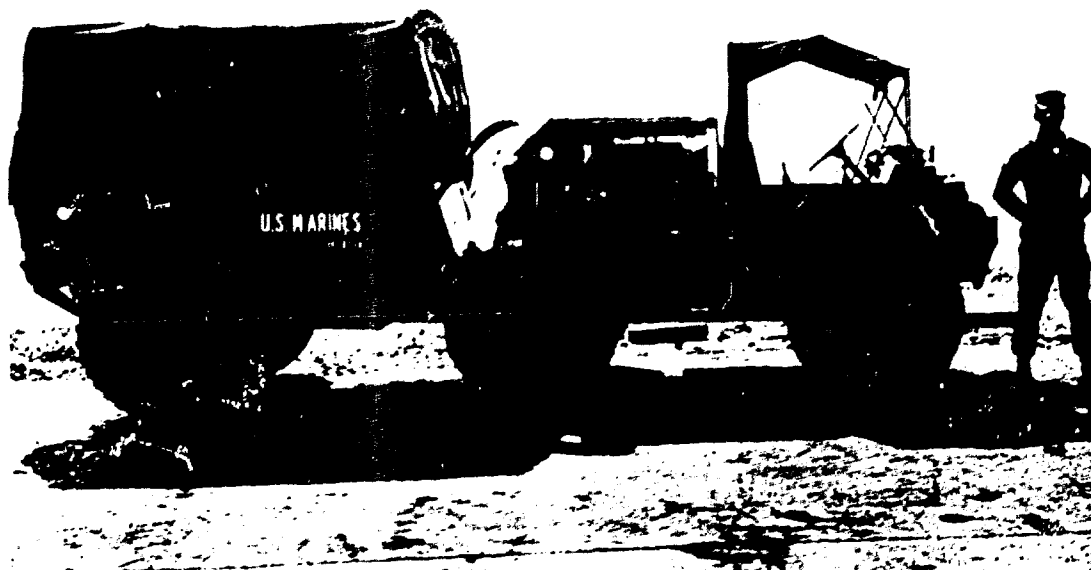
f. Gradesability	
(1) Forward slope	60%
(2) Side slope	40%
g. Angle of approach	75°
h. Angle of departure	65°
i. Max vertical step climbing ability	1.5 ft
j. Mobility index	14
k. Vehicle cone index	12

F-4-C-4

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TAB D (Truck, Cargo, Articulated, 1-1/4 Ton, 6x6, M561) to Appendix 4 (High Mobility Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This truck is due for phasing into the Marine Corps inventory during the 3rd quarter of FY 70, as a replacement vehicle for the M37B1, 3/4 ton truck. It is a highly mobile, light duty vehicle utilizing a two-body design.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

- | | |
|---------------|-----------|
| (1) W/winch | 6,412 lbs |
| (2) W/o winch | 6,200 lbs |

b. Payload 2,500 lbs

c. Towed load allowed 5,380 lbs

d. Dimensions

(1) Length

- | | |
|---------------|------------|
| (a) W/winch | 229.75 in. |
| (b) W/o winch | 221.5 in. |

(2) Width 84.0 in.

(3) Height 91 in.

(4) Height, lowest operable 64.1 in.

(5) Wheelbase

- | | |
|-----------------------------|----------|
| (a) Front wheels to interim | 78.8 in. |
| (b) Interim to rear wheel | 84.4 in. |

(6) Tread C-C 71.3 in.

(7) Ground clearance 15.0 in.

(8) Cargo body

- | | |
|------------|-----------|
| (a) Length | 84.75 in. |
|------------|-----------|

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(b) Width	74.5 in.
(c) Area	36 sq ft
e. Vehicle crew	2
f. Passengers, including crew	
g. Fuel	
(1) Capacity	43 gal
(2) Type	Diesel
h. Electrical system	24 volt
i. Engine	3 cyl, 103 hp
j. Transmission	4 speed
k. Transfer	2 speed
l. Axles	3
m. Wheels	6
n. Tires	
(1) Size	11.00 x 18
(2) Tread design	NDCC
o. Ground pressure	
(1) Front tires	6 psi
(2) Interim tires	6.3 psi
(3) Rear tires	6.3 psi
p. Shipping dimensions	133 sq ft reducible to 132 sq ft
3. (U) <u>OPERATIONAL CHARACTERISTICS</u>	
a. Turning radius	29 ft
b. Speeds (max permissible)	
(1) On land	55 mph
(2) Inland waters	2 mph

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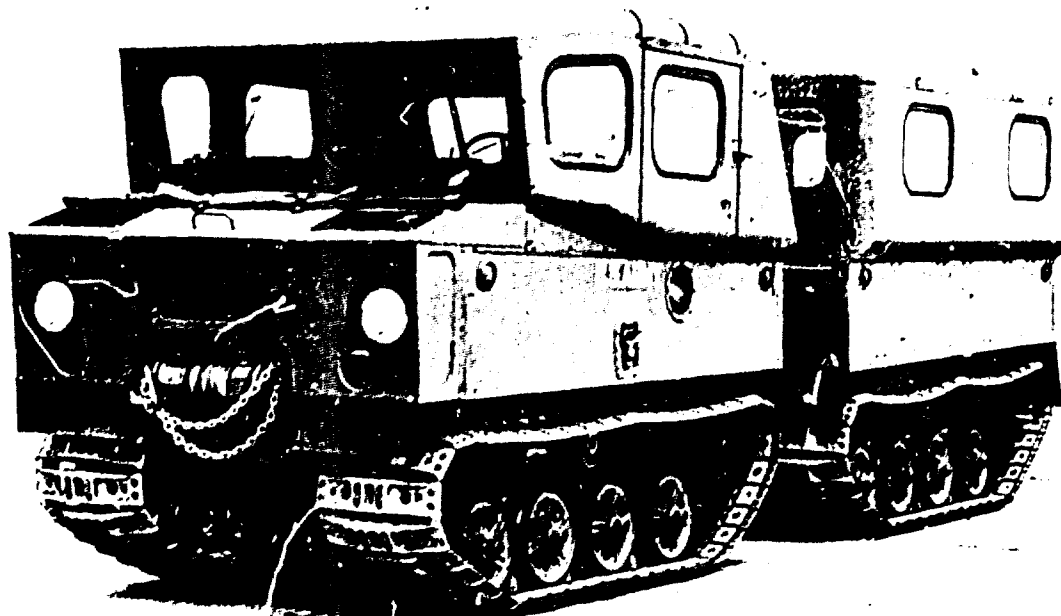
c. Fuel consumption	6.6 mpg
d. Cruising range (w/o towed load)	610 miles
e. Fording	Swimmer
f. Gradeability	
(1) Forward slope	60%
(2) Side slope	40%
g. Angle of approach	
(1) W/winch	57°
(2) W/o winch	62.5°
h. Angle of departure	58°
i. Maximum vertical step climbing ability	
j. Vehicle mobility index	
k. Vehicle cone index	

F-4-D-4

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TAB E (Carrier, Utility, Articulated, 1 Ton, Tracked, XM571) to Appendix 4 (High Mobility Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



F-4-E-1

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1. (U) GENERAL. This vehicle will be used to transport men and supplies in all seasons over various types of difficult terrain. It is type classified Standard B. This vehicle is not in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

- | | |
|----------------|-----------|
| (1) Front unit | 3,650 lbs |
| (2) Rear unit | 2,500 lbs |

b. Payload

- | | |
|----------------|-----------|
| (1) Front unit | 500 lbs |
| (2) Rear unit | 1,500 lbs |

c. Towed load allowed 1,500 lbs

d. Dimensions

- | | |
|-----------------------------|-----------|
| (1) Length | |
| (a) Front unit | 111.5 in. |
| (b) Rear unit | 125.5 in. |
| (2) Width | 64 in. |
| (3) Height | |
| (a) Front unit | 62.8 in. |
| (b) Rear unit | 48.5 in. |
| (4) Height, lowest operable | 62.8 in. |
| (5) Track | |
| (a) Type | Band |
| (b) Width | 18 in. |
| (c) Centers | 45.5 in. |

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(6) Ground clearance	12 in.
(7) Cargo body, rear unit	
(a) Length	
(b) Width	
(c) Area	
<u>1</u> Front unit	12 sq ft
<u>2</u> Rear unit	40 sq ft
e. Vehicle crew	2
f. Passengers, including crew	
(1) W/1 rear unit	12
(2) W/2 rear units	20
g. Fuel	
(1) Capacity	
(a) Front unit	35 gal
(b) Rear unit	30 gal
(2) Type	Gas
h. Electrical system	24 volt
i. Engine	6 cyl, 70 hp
j. Transmission	4 speed.
k. Transfer	High and low range
l. Axles	
m. Road wheels	8 per unit
n. Tires	
(1) Size	14 in. dia
(2) Type	Divided w/solid rubber tire

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- o. Ground pressure
 - (1) No sinkage 2.25 psi
 - (2) At 4 in. sinkage 1.74 psi
- p. Shipping dimensions
 - (1) Front unit 45.2 sq ft
 - (2) Rear unit 50.1 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

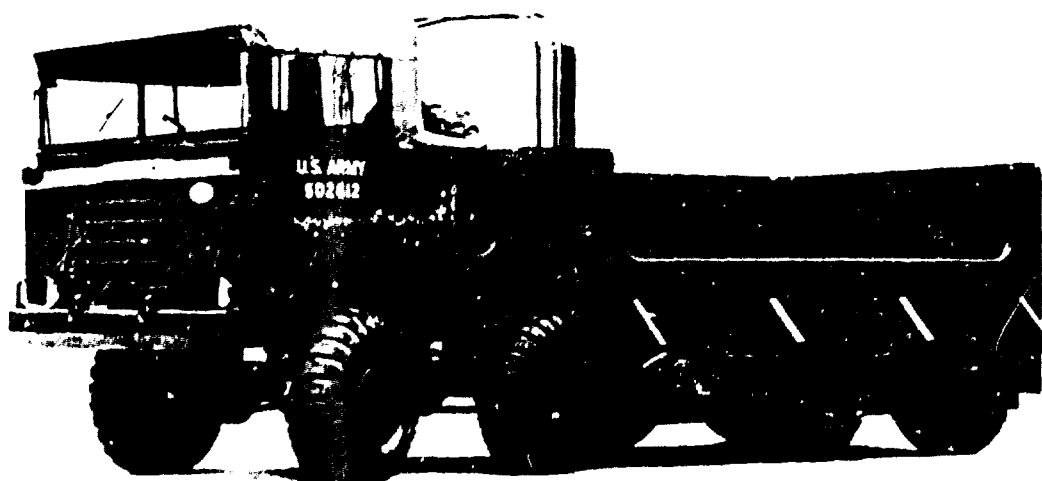
- a. Turning radius
 - (1) Land 50.5 ft
 - (2) Water
- b. Speed (max permissible)
 - (1) Land 32 mph
 - (2) Water 3 mph
- c. Fuel consumption 5 mpg
- d. Cruising range (highway w/o towed load) 300 miles
- e. Fording Swimmer
- f. Gradeability
 - (1) Forward slope 60%
 - (2) Side slope 40%
- g. Angle of approach 64°
- h. Angle of departure 67°
- i. Max vertical step climbing ability 18 in.
- j. Vehicle mobility index
- k. Vehicle cone index

F-4-E-4

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TAB F (Truck, Cargo, 5 Ton, 8x8, M656) to Appendix 4 (High Mobility Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This truck is the first of a new generation of tactical vehicles. It has greater mobility than the present 5 ton vehicle. The vehicle is type classified Standard A and is undergoing evaluation by the Development Center, Quantico, Virginia.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight

- | | |
|---------------|------------|
| (1) W/winch | 17,300 lbs |
| (2) W/o winch | 16,150 lbs |

b. Payload

- | | |
|-------------------|------------|
| (1) Highway | 20,000 lbs |
| (2) Cross-country | 10,000 lbs |

c. Towed load allowed

- | | |
|-------------------|------------|
| (1) Highway | 13,000 lbs |
| (2) Cross-country | 13,000 lbs |

d. Dimensions

- | | |
|-----------------------------|-----------|
| (1) Length | |
| (a) W/winch | 299 in. |
| (b) W/o winch | 278 in. |
| (2) Width | 96 in. |
| (3) Height | 116 in. |
| (4) Height, lowest operable | 80 in. |
| (5) Wheelbase | 148 in. |
| (6) Tread C-C | 77.25 in. |
| (7) Ground clearance | 12 in. |

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(8) Cargo body	
(a) Length	180 in.
(b) Width	
(c) Area	110 sq ft
(d) Volume	
e. Vehicle crew	2
f. Passengers, including crew	18
g. Fuel	
(1) Capacity	80 gal
(2) Type	Multi-fuel
h. Electrical system	24 volt
i. Engine	6 cyl, 200 hp
j. Transmission	6 speed
k. Transfer	1 speed
l. Axles	4
m. Wheels	8 & spare
n. Tires	
(1) Size	16.00 x 20
(2) Tread design	NDCC
o. Ground pressure	
p. Shipping dimensions	
(1) W/winch	200 sq ft
(2) W/o winch	186 sq ft

F-4-F-3

UNCLASSIFIED

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3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius	42 ft
b. Speed (max permissible)	50 mph
c. Fuel consumption	4.1 mpg
d. Cruising range (highway w/o towed load)	310 miles
e. Fording	Swimmer
f. Gradesability	
(1) Forward slope	60%
(2) Side slope	40%
g. Angle of approach	
(1) W/winch	35°
(2) W/o winch	55°
h. Angle of departure	64°
i. Max vertical step climbing ability	27 in.
j. Mobility index	
k. Vehicle cone index	

F-4-F-4

UNCLASSIFIED

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TAB G (Truck, Cargo, 8 Ton, 4x4, M520) to Appendix 4 (High Mobility Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This vehicle is presently not in the Marine Corps inventory; however, it has been type classified Standard A.

2. (U) VEHICLE CHARACTERISTICS

- | | |
|-------------------------------|------------|
| a. Net weight | 24,780 lbs |
| b. Payload | 16,000 lbs |
| c. Towed load allowed | |
| d. Dimensions | |
| (1) Length | 384 in. |
| (2) Width | 108 in. |
| (3) Height | 121 in. |
| (4) Height, lowest operable | 97 in. |
| (5) Wheelbase | 235 in. |
| (6) Tread C-C | 86.8 in. |
| (7) Ground clearance | 24 in. |
| (8) Cargo body | |
| (a) Length | 196 in. |
| (b) Width | |
| <u>1</u> Between wheel wells | 58 in. |
| <u>2</u> Of side doors | 106 in. |
| (c) Height | 48 in. |
| (d) Area | |
| e. Vehicle crew | 2 |
| f. Passengers, including crew | |
| g. Fuel | |
| (1) Capacity | 110 gal |
| (2) Type | Diesel |

UNCLASSIFIED

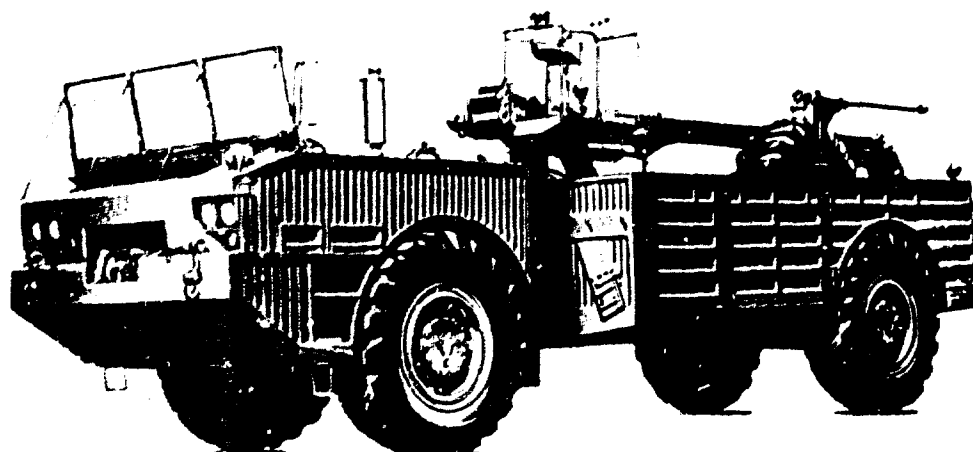
h. Electrical system	24 volt
i. Engine	6 cyl, 213 hp
j. Transmission	6 speed power shift
k. Axles	2
l. Wheels	4
m. Tires	
(1) Size	18.00 x 33
(2) Tread design	NDCC
n. Ground pressure	
c. Shipping dimensions	287 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius	26.6 ft
b. Speed (max permissible)	30 mph
c. Fuel consumption	4 mpg
d. Cruising range (highway w/o towed load)	400 miles
e. Fording	Swimmer
f. Gradeability	
(1) Forward slope	60%
(2) Side slope	30%
g. Angle of approach	35 ^o
h. Angle of departure	38 ^o
i. Max vertical step climbing ability	
j. Vehicle mobility index	
k. Vehicle cone index	

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TAB II (Truck, Wrecker, 10 Ton, 4x4, M553) to Appendix 4 (High Mobility Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This vehicle is presently not in the Marine Corps inventory; however, it has been type classified Standard A.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	38,650 lbs
b. Crane rated lift capacity	
(1) 20-3/4 ft radius	6,000 lbs
(2) 16 ft radius	10,000 lbs
(3) 11 ft radius	15,000 lbs
(4) 6 ft radius	20,000 lbs
c. Towed load allowed	
d. Dimensions	
(1) Length	401 in.
(2) Width	108 in.
(3) Height	128 in.
(4) Height, lowest operable	118 in.
(5) Wheelbase	235 in.
(6) Tread C-C	86.8 in.
(7) Ground clearance	24 in.
e. Vehicle crew	2
f. Fuel	
(1) Capacity	110 gal
(2) Type	Diesel
g. Electrical system	24 volt
h. Engine	6 cyl, 213 hp
i. Transmission	6 speed power shift

UNCLASSIFIED

j. Axles	4
k. Wheels	4 & 2 spares
l. Tires	
(1) Size	18.00 x 33
(2) Tread design	NDCC
m. Ground pressure	
n. Shipping dimensions	289 sq ft

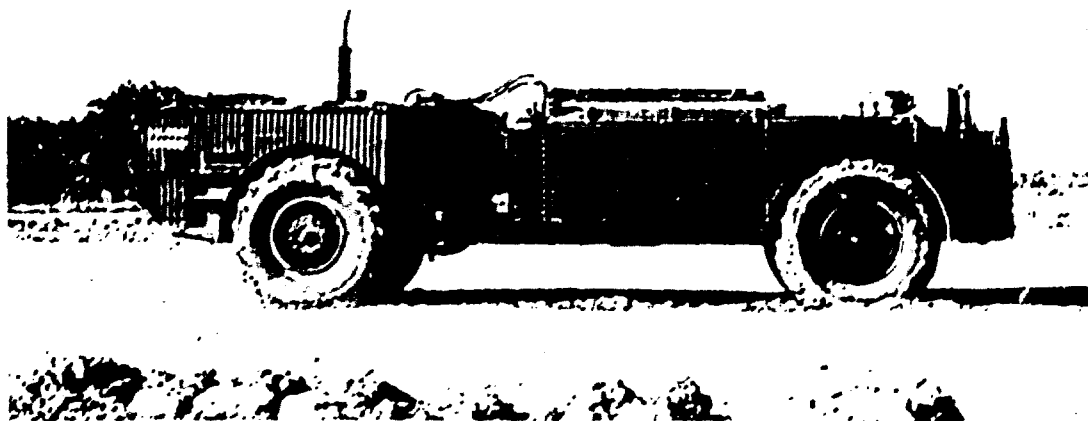
3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius	26.6 ft
b. Speed (max permissible)	30 mph
c. Fuel consumption	4 mpg
d. Cruising range (highway w/o towed load)	400 miles
e. Fording	Swimmer
f. Gradeability	
(1) Forward slope	60%
(2) Side slope	30%
g. Angle of approach	35°
h. Angle of departure	35°
i. Max vertical step climbing ability	
j. Vehicle mobility index	
k. Vehicle cone index	

UNCLASSIFIED

UNCLASSIFIED

TAB I (Truck, Fuel, Servicing, 2,500 Gal, 4x4, M559) to Appendix 4 (High Mobility Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

1. (U) GENERAL. This vehicle is presently not in the Marine Corps inventory; however, it has been type classified Standard A.

2. (u) VEHICLE CHARACTERISTICS

a. Net weight	29,590 lbs
b. Payload	2,500 gal
c. Towed load allowed	20,000 lbs
d. Dimensions	
(1) Length	391 in.
(2) Width	108 in.
(3) Height	133.9 in.
(4) Height, lowest operable	99 in.
(5) Wheelbase	235 in.
(6) Tread C-C	86.8 in.
(7) Ground clearance	24 in.
e. Vehicle crew	2
f. Fuel	
(1) Capacity	110 gal
(2) Type	Diesel
g. Electrical system	24 volt
h. Engine	6 cyl, 213 hp
i. Transmission	6 speed power shift
j. Axles	4
k. Wheels	4
l. Tires	
(1) Size	18.00 x 33
(2) Tread design	NDCC

UNCLASSIFIED

UNCLASSIFIED

- m. Ground pressure
- n. Shipping dimensions

3. (U) OPERATIONAL CHARACTERISTICS

- a. Turning radius 26.6 ft
- b. Speed (max permissible) 30 mph
- c. Fuel consumption 4 mpg
- d. Cruising range (highway w/o towed load) 400 miles
- e. Fording Swimmer
- f. Gradeability
 - (1) Forward slope 60%
 - (2) Side slope 30%
- g. Angle of approach 35°
- h. Angle of departure 35°
- i. Max vertical step climbing ability
- j. Vehicle mobility index
- k. Vehicle cone index

UNCLASSIFIED

UNCLASSIFIED

TAB J (Carrier, Cargo, Amphibious, 1-1/2 Ton, Tracked, M116) to Appendix 4 (High Mobility Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



F-4-J-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. The carrier cargo, amphibious tracked M116A1 is the latest marginal terrain vehicle to enter the Marine Corps inventory and is type classified Standard A. The light weight, amphibious vehicle is designed to transport cargo or passengers over unimproved roads as well as in all seasonal conditions in arctic, temperate, and tropical zones.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	7,680 lbs
b. Payload	3,000 lbs
c. Towed load allowed	2,400 lbs
d. Dimensions	
(1) Length	188-1/8 in. reducible to 181-1/8 in.
(2) Width	82-1/8 in. reducible to 80 in.
(3) Height	79-1/8 in. reducible to 63-1/4 in.
(4) Tread C-C	58-1/2 in.
(5) Ground clearance	15-1/2 in.
(6) Cargo body	
(a) Length	91 in.
(b) Width	76 in.
(c) Height	23 in.
(d) Area	43 sq ft
e. Vehicle crew	1
f. Passengers, including crew	14

UNCLASSIFIED

g. Fuel

(1) Capacity 65 gal

(2) Type Gas

h. Electrical system 24 volt

i. Engine V8, 160 hp

j. Transmission 3 speed, hydromatic

k. Axles 14

l. Wheels 1 idler, 1 sprocket
5 road wheels/track

m. Track width 20 in.

n. Ground pressure

(1) At net weight 1.9 psi

(2) With payload 2.6 psi

o. Shipping dimensions 107 sq ft
reducible to
102 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius Pivot to infinity

b. Speed (max permissible)

(1) On land 37 mph

(2) On water 4 mph

c. Fuel consumption

(1) On land 4 mpg

(2) On water 1/3 mpg

d. Cruising range (w/o towed load)

(1) On land or hard surface 300 miles

(2) On water (approximately) 22 miles

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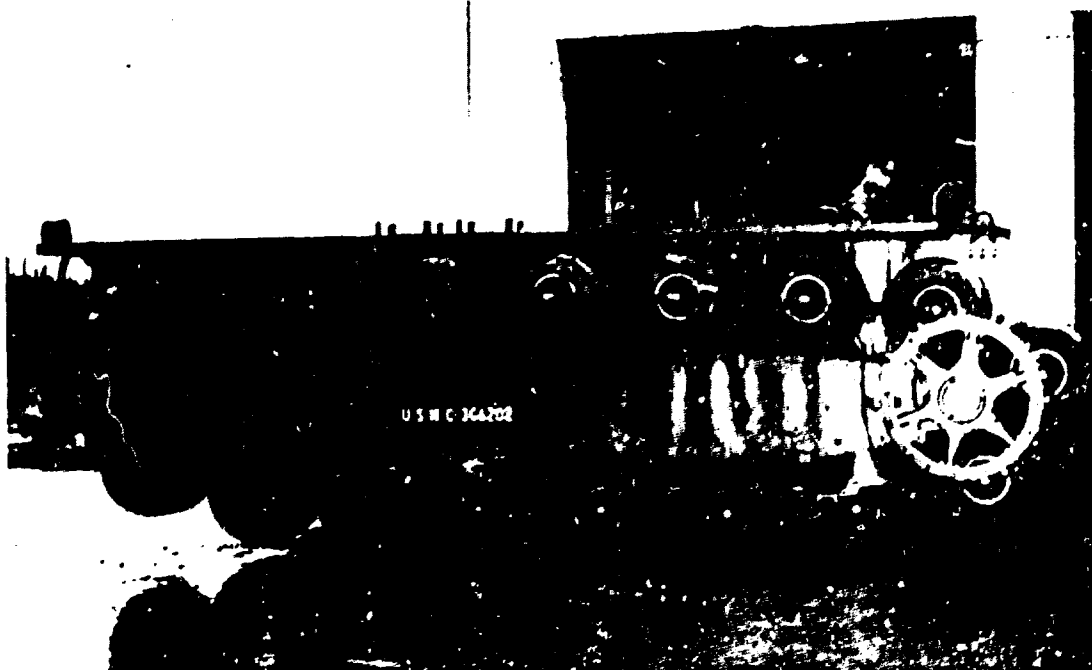
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e. Fording	Amphibious
f. Gradeability	
(1) Forward slope	60%
(2) Side slope	30%
g. Angle of approach	
h. Angle of departure	
i. Max vertical step climbing ability	18 in.

UNCLASSIFIED

UNCLASSIFIED

TAB K (Carrier, Cargo, Soft Tire, 1-1/2 Ton, Tracked, XM759E1) to Appendix 4 (High Mobility Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



F-4-K-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This vehicle is presently under evaluation and is a candidate replacement for the M116 (Tab J).

2. (U) VEHICLE CHARACTERISTICS

a.	Net weight	8,700 lbs
b.	Payload	
	(1) Land	3,700 lbs
	(2) Water	3,700 lbs
c.	Dimensions	
	(1) Length	245-1/8 in.
	(2) Width	110 in.
	(3) Height	102-1/8 in.
	(4) Height, lowest operable	
	(5) Track	
	(a) Type	Pneumatic
	(b) Length	276 in.
	(c) Width	21 in.
	(6) Ground clearance	30 in.
	(7) Cargo body	
	(a) Length	119 in.
	(b) Width	46 in.
	(c) Height	47 in.
	(d) Area	36 sq ft
e.	Vehicle crew	2
f.	Passengers, including crew	16

UNCLASSIFIED

- g. Fuel
 - (1) Capacity 50 gal
 - (2) Type Gas
- h. Electrical system 24 volt
- i. Engine V8, 283 hp
- j. Transmission Hydromatic 3 speed
- k. Axles 34
- l. Wheels 34
- m. Tires
 - (1) Size 24 x 21 x 6
 - (2) Tread design Smooth
- n. Ground pressure
- o. Shipping dimensions 180 sq ft

3. (U) OPERATIONAL CHARACTERISTICS

- a. Turning radius
 - (1) Land 22 ft
 - (2) Water 30 ft
- b. Speed (max permissible)
 - (1) Land 40 mph
 - (2) Water 6.5 mph
- c. Fuel consumption 3.6 mpg
- d. Cruising range
 - (1) Land 180 miles
 - (2) Water

UNCLASSIFIED

e. Fording	Swimmer
f. Gradeability	
(1) Forward slope	60%
(2) Side slope	45%
g. Angle of approach	
h. Angle of departure	
i. Maximum vertical step climbing ability	36 in.
j. Vehicle mobility index	
k. Vehicle cone index	

UNCLASSIFIED

UNCLASSIFIED

APPENDIX 5 (Amphibious Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)

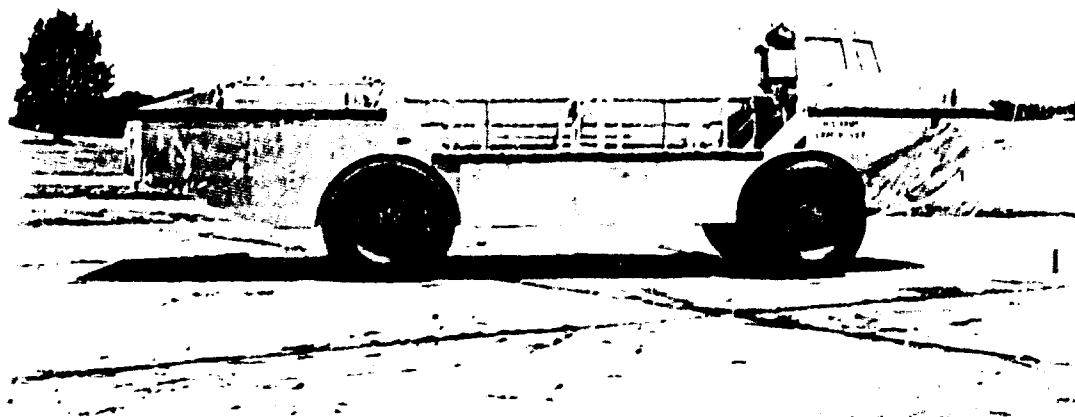
1. (U) PURPOSE. This appendix provides the characteristics of and performance data for amphibious vehicles.
2. (U) GENERAL. An amphibious vehicle, either tracked or wheeled, is capable of operating in water, negotiating surf and on land without major modification.

TABS:

- A. Lighter, Amphibious, Resupply, Cargo, LARC 5
- B. Lighter, Amphibious, Resupply, Cargo, LARC 15
- C. Lighter, Amphibious, Resupply, Cargo, LARC 30
- D. Lighter, Amphibious, Resupply, Cargo, LARC 60
- E. Dual, Utility, Cargo, Wheeled, DUKW
- F. Landing Vehicle, Tracked, Personnel, LVTP5A1
- G. Landing Vehicle, Tracked, Command, LVTP5A1 (CMD)
- H. Landing Vehicle, Tracked, Recovery, LVTR1A1
- I. Landing Vehicle, Tracked, Personnel, Experimental, LVTPX12
- J. Landing Vehicle, Tracked, Command, Experimental, LVTCX2
- K. Landing Vehicle, Tracked, Recovery, Experimental, LVTRX2

UNCLASSIFIED

TAB A (Lighter, Amphibious, Resupply, Cargo, LARC 5) to Appendix 5 (Amphibious Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This 5-ton, self-propelled, amphibious lighter is designed for employment in a cargo carrying capacity during amphibious operations, river crossings and limited operations ashore. The vehicle has an all-welded aluminum marine hull with wheels, a self-bailing cargo deck and is capable of negotiating a ten foot surf. This vehicle is in current production, but is not in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	20,950 lbs
b. Payload	10,000 lbs
c. Dimensions	
(1) Length	35 ft
(2) Height (overall/reducible)	10 ft 2 in./ 7 ft 11 in.
(3) Width	10 ft
(4) Wheelbase	192 in.
(5) Tread C-C	101 in.
(6) Ground clearance	16 in.
(7) Cargo space	
(a) Length	16 ft
(b) Width	9 ft 8 in.
(c) Height	29 in.
d. Vehicle crew	2
e. Passengers (normal/emergency)	0/19
f. Fuel	
(1) Capacity	144 gal
(2) Type	Diesel

UNCLASSIFIED

UNCLASSIFIED

g. Electrical system	24 volt
h. Engine	Cummins Diesel, V8, 300 hp
i. Transmission	Borg-Warner, auto-matic
j. Axles	4
k. Wheels	4
l. Ground pressure	21.7 psi
m. Tires	18.00 x 25

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius, land (maximum)	36 ft 6 in.
b. Land propulsion	Wheels
c. Water propulsion	Propeller
d. Speed, loaded (maximum)	
(1) Land	30 mph
(2) Water	10 mph
e. Cruising range	
(1) Land (full load/no load)	200/259 miles
(2) Water (full load/no load)	40/79 miles
f. Fuel consumption	3 mpg/ 14 gal per hr
g. Gradeability	
(1) Forward slope	60%
(2) Side slope	20%
h. Angle of approach	31°
i. Angle of departure	28°

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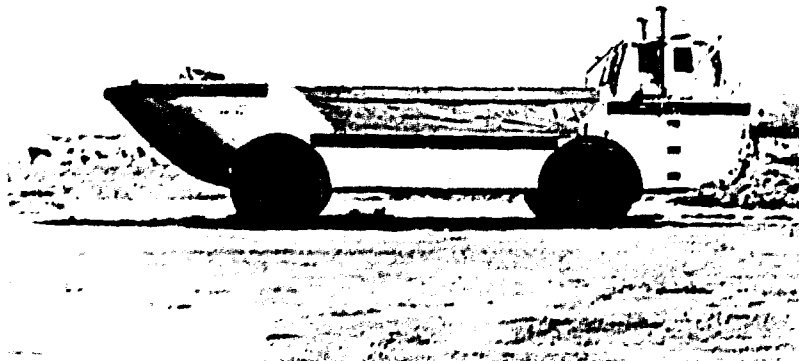
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j. Vehicle cone index	68
k. Mobility index	93
l. Maximum vertical step climbing ability	19 in.
m. Draft, loaded (fwd/aft)	4 ft 1 in./ 4 ft 3 in.
n. Freeboard, loaded	10 in.

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UNCLASSIFIED

TAB B (Lighter, Amphibious, Resupply, Cargo, LARC 15) to Appendix 5 (Amphibious Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report for Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

1. (U) GENERAL. This 15-ton, self-propelled, amphibious lighter is designed to be employed in a cargo carrying capacity during amphibious operations, river crossings and limited operations ashore. The vehicle has an all-welded aluminum marine hull with wheels, a self-bailing cargo deck and is capable of negotiating a ten foot surf. This vehicle is in current production, but is not in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	45,200 lbs
b. Payload	30,000 lbs
c. Dimensions	
(1) Length	45 ft
(2) Height (overall/reducible)	15 ft 6 in./ 13 ft 8 in.
(3) Width	14 ft 6 in.
(4) Wheel base	20 ft 10-1/2 in.
(5) Ground clearance	
(a) Hull to ground	29 in.
(b) Propeller shroud to ground	16-1/2 in.
(6) Cargo space	
(a) Length	24 ft
(b) Width	13 ft 6 in.
(c) Height	3 ft 2-1/2 in.
d. Vehicle crew	2
e. Passengers (normal/emergency)	0/51
f. Fuel	
(1) Capacity	360 gal
(2) Type	Diesel

UNCLASSIFIED

g. Electrical system	24 volt
h. Engines, 2 each	Cummins Diesel, V8, 300 hp
i. Transmission	Borg-Warner, auto- matic
j. Axles	4
k. Wheels	4
l. Tires	24.00 x 29
m. Ground pressure	30 psi

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius (maximum)	
(1) Land	45 ft 8 in.
(2) Water	35 ft
b. Land propulsion	Wheels
c. Water propulsion	Propeller
d. Speed, loaded (maximum)	
(1) Land	30 mph
(2) Water	9 mph
e. Cruising range	
(1) Land (full load/no load)	260/500 miles
(2) Water (full load/no load)	45/54 miles
f. Fuel consumption	
(1) Land	16 gal/hr
(2) Water	28 gal/hr
g. Gradeability	
(1) Forward slope	60%

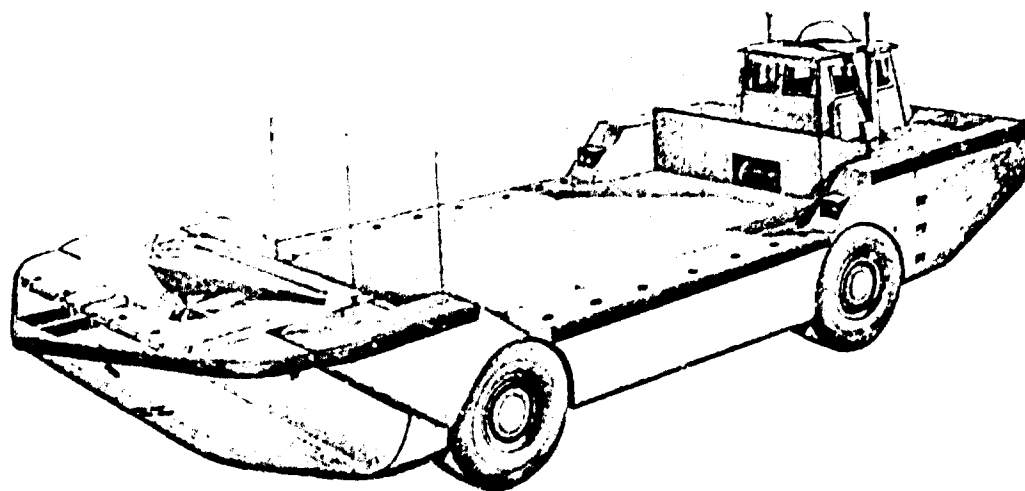
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(2) Side slope	25%
(3) Stability (water)	45°
h. Angle of approach	22°
i. Angle of departure	22°
j. Vehicle cone index	170
k. Mobility index	310
l. Draft, loaded (fwd/aft)	4 ft 11 in./ 5 ft 6 in.
m. Freeboard, loaded	1 ft 3 in.

UNCLASSIFIED

TAB C (Lighter, Amphibious, Resupply, Cargo, LARC 20) to Appendix 5 (Amphibious Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



LARC XXX

UNCLASSIFIED

1. (U) GENERAL. This 30-ton, self-propelled, amphibious lighter is a design and development proposal which, if built, would complement the existing lighter family and be employed in a cargo carrying capacity during amphibious operations, river crossings and limited operations ashore.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	70,000 lbs
b. Payload	60,000 lbs
c. Dimensions	
(1) Length	54 ft
(2) Height (lowest operable)	14 ft 6 in.
(3) Width	16 ft
(4) Wheel base	24 ft
(5) Ground clearance	2 ft 8 in.
(6) Cargo space	
(a) Length	30 ft
(b) Width	13 ft 6 in.
d. Vehicle crew	2
e. Passengers (normal/emergency)	0/64
f. Fuel	
(1) Capacity	360 gal
(2) Type	Diesel
g. Electrical system	24 volt
h. Engines, 2 each	GMC-8V71, Diesel, 335 hp
i. Transmission	Torque converter
j. Axles	4

UNCLASSIFIED

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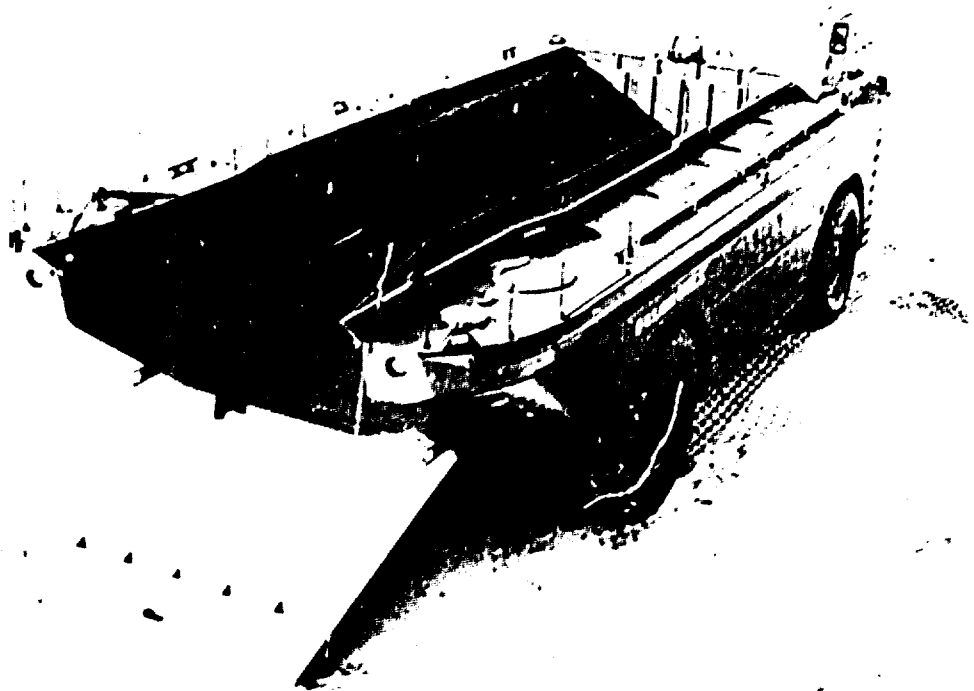
k. Wheels	4
l. Tires	32.50 x 33

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius (maximum)	
(1) Land	48 ft
(2) Water	15 ft
b. Land propulsion	Wheels
c. Water propulsion	One or more propellers
d. Speed, loaded (maximum)	
(1) Land	30 mph
(2) Water	8 mph
e. Cruising range, loaded	
(1) Land	265 miles
(2) Water	77 miles
f. Fuel consumption	40 gal/hr
g. Gradeability	
(1) Forward slope	40%
(2) Side slope	35%
(3) Stability (water)	45°
h. Angle of approach	22°
i. Angle of departure	22°
j. Freeboard, loaded	1 ft 6 in.

UNCLASSIFIED

TAB D (Lighter, Amphibious, Resupply, Cargo, LARC 60) to Appendix 5 (Amphibious Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



F-5-D-1

UNCLASSIFIED

UNCLASSIFIED

1. (U) GENERAL. This 60-ton, steel, self-propelled, amphibious lighter is employed in a passenger and cargo carrying capacity during amphibious operations, river crossings, and limited operations ashore. It is capable of negotiating a ten foot surf. The LARC 60 is in the U.S. Army inventory, but is not in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	199,000 lbs
b. Payload	120,000 lbs
c. Dimensions	
(1) Length	62 ft 6 in.
(2) Height (overall/reducible)	19 ft 5 in./ 15 ft 4 in.
(3) Width	26 ft 7 in.
(4) Wheel base	28 ft 10-1/2 in.
(5) Ground clearance	2 ft 1-1/2 in.
(6) Cargo space	
(a) Length	38 ft
(b) Width	13 ft 8 in.
(c) Height	5 ft 6 in.
d. Vehicle crew	4
e. Passengers (normal/emergency)	0/200
f. Fuel	
(1) Capacity	600 gal
(2) Type	Diesel
g. Electrical system	24 volt

UNCLASSIFIED

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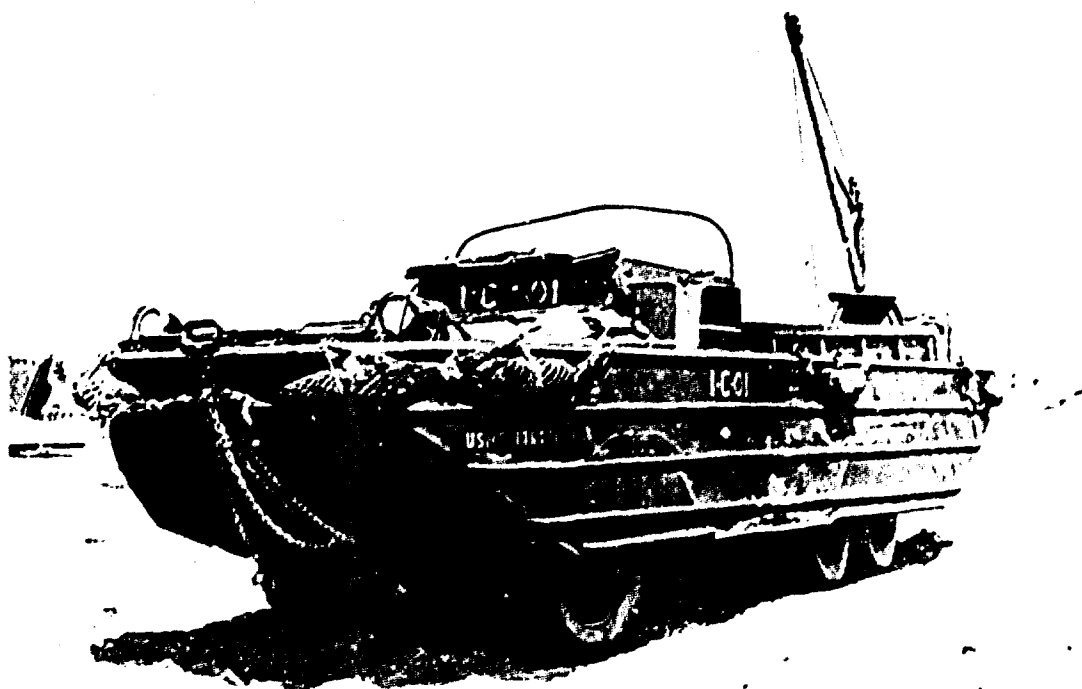
h. Engines, 4 each	Diesel, 165 hp
i. Transmission, 1 each wheel	Independent drive
j. Axles	4
k. Wheels	4
l. Tires	36.00 x 41
m. Ground pressure	42 psi

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius, land (maximum)	75 ft
b. Land propulsion	Wheels
c. Water propulsion	2 propellers
d. Speed, loaded (maximum)	
(1) Land	14 mph
(2) Water	7 mph
e. Cruising range, loaded	
(1) Land	150 miles
(2) Water	75 miles
f. Fuel consumption	30 gal/hr
g. Gradeability	40%
h. Angle of approach	27°
i. Angle of departure	27°
j. Maximum vertical step up capability	30°
k. Draft, loaded	8 ft 8 in.
l. Freeboard, loaded	4 ft 5 in.

UNCLASSIFIED

TAB E (Dual, Utility, Cargo, Wheeled, DUKW) to Appendix 5 (Amphibious Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

1. (U) GENERAL. This 2-1/2-ton, 6 x 6, vehicle can be employed in a troop and cargo transport role during ship-to-shore movement and in subsequent operations ashore. It is capable of negotiating an eight foot surf. This vehicle is in the Marine Corps inventory, but is not currently operational.

2. (U) VEHICLE CHARACTERISTICS

a. Net weight	15,000 lbs
b. Payload	5,000 lbs
c. Dimensions	
(1) Length	31 ft
(2) Height (overall/reducible)	9 ft 2-1/2 in./ 7 ft 8 in.
(3) Width	8 ft 2 in.
(4) Wheel base	13 ft 8 in.
(5) Tread C-C	5 ft 4 in.
(6) Ground clearance	11-1/2 in.
(7) Cargo space	
(a) Length	24 ft 5 in.
(b) Width	6 ft 10 in.
(c) Height	2 ft 3 in.
d. Vehicle crew	2
e. Passengers (normal/emergency)	25/30
f. Fuel	
(1) Capacity	40 gal
(2) Type	72-80 octane, gas

F-5-E-2

UNCLASSIFIED

UNCLASSIFIED

g. Electrical system	24 volt
h. Engine	GMC 270, V6, 91 hp
i. Transmission	GMC, mechanical
j. Axles	4
k. Wheels	4
l. Tires	11.00 x 18

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius (maximum)	
(1) Land	36 ft
(2) Water	20 ft
b. Land propulsion	Wheels
c. Water propulsion	Propeller
d. Speed, loaded (maximum)	
(1) Land	50 mph
(2) Water	6 mph
e. Cruising range, loaded	
(1) Land	240 miles
(2) Water	35 miles
f. Fuel consumption	
(1) Land	5 gal/hr
(2) Water	7 gal/hr
g. Gradeability	60%
h. Angle of approach	38°
i. Angle of departure (empty/loaded)	25°/15°

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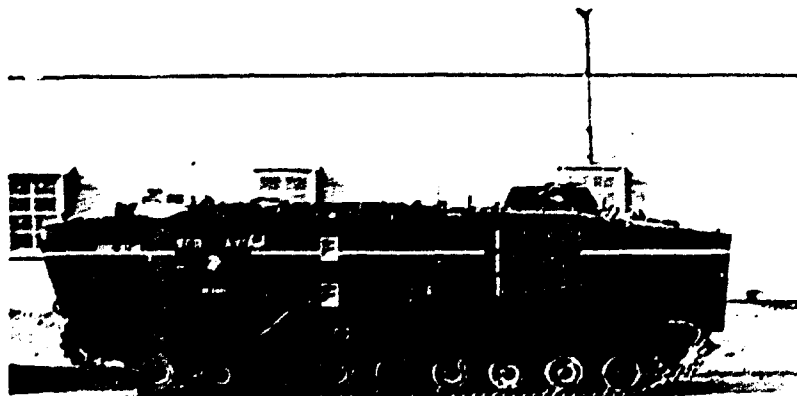
j. Maximum vertical step climbing ability	11-1/2 in.
k. Draft, loaded (fwd/aft)	3 ft 6 in./ 4 ft 3 in.
l. Freeboard, loaded (fwd/aft)	24 in./16 in.

F-5-E-4

UNCLASSIFIED

UNCLASSIFIED

TAB F (Landing Vehicle, Tracked, Personnel, LVTP5A1) to Appendix 5 (Amphibious Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



UNCLASSIFIED

1. (U) GENERAL. This armored, amphibious, assault personnel and cargo carrier can be employed to transport troops, equipment and cargo through a 15 foot surf to inland points as required. The vehicle operates on land or in water without modification. It is in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Weight

- | | |
|--------------------------------|-----------------------|
| (1) Net | 65,700 lbs |
| (2) Combat loaded (water/land) | 82,500 lb, 88,500 lbs |

- | | |
|-------------------------|----------------------|
| b. Payload (water/land) | 12,000 lb/18,000 lbs |
|-------------------------|----------------------|

c. Dimensions

- | | |
|----------------------------|-----------------|
| (1) Length | 29 ft 3 in. |
| (2) Height (overall) | 9 ft 7 in. |
| (3) Width | 11 ft 8-1/2 in. |
| (4) Track effective length | 19 ft 4 in. |
| (5) Track C-C | 11 ft 8 in. |
| (6) Ground clearance | 11 in. |

(7) Cargo space

- | | |
|---|------------|
| (a) Length of cargo opening in top deck | 8 ft |
| (b) Width of cargo opening in top deck | 7 ft |
| (c) Length | 15 ft |
| (d) Width (minimum) | 7 ft 3 in. |
| (e) Height (minimum) | 5 ft 6 in. |

- | | |
|-----------------|---|
| d. Vehicle crew | 3 |
|-----------------|---|

UNCLASSIFIED

UNCLASSIFIED

e. Passengers (maximum)	34
f. Fuel	
(1) Capacity	456 gal
(2) Type	80 octane, gas
g. Electrical system	24 volt
h. Engine	Continental, LV-1790-1 V-12, 810 hp
i. Transmission	Allison Crossdrive, hydraulic torque converter
j. Running gear	
(1) Sprockets	17 teeth, 1 each side
(2) Return idlers	5 pair per side
(3) Track blocks	Steel, 134 blocks per side
(4) Wheels	Dual, 9 per side
k. Ground pressure	9.3 psi

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius (maximum)	
(1) Land pivot	27 ft
(2) Water	70 ft
b. Land propulsion	Track
c. Water propulsion	Track
d. Speed, loaded (maximum)	
(1) Land	30 mph
(2) Water	6 mph

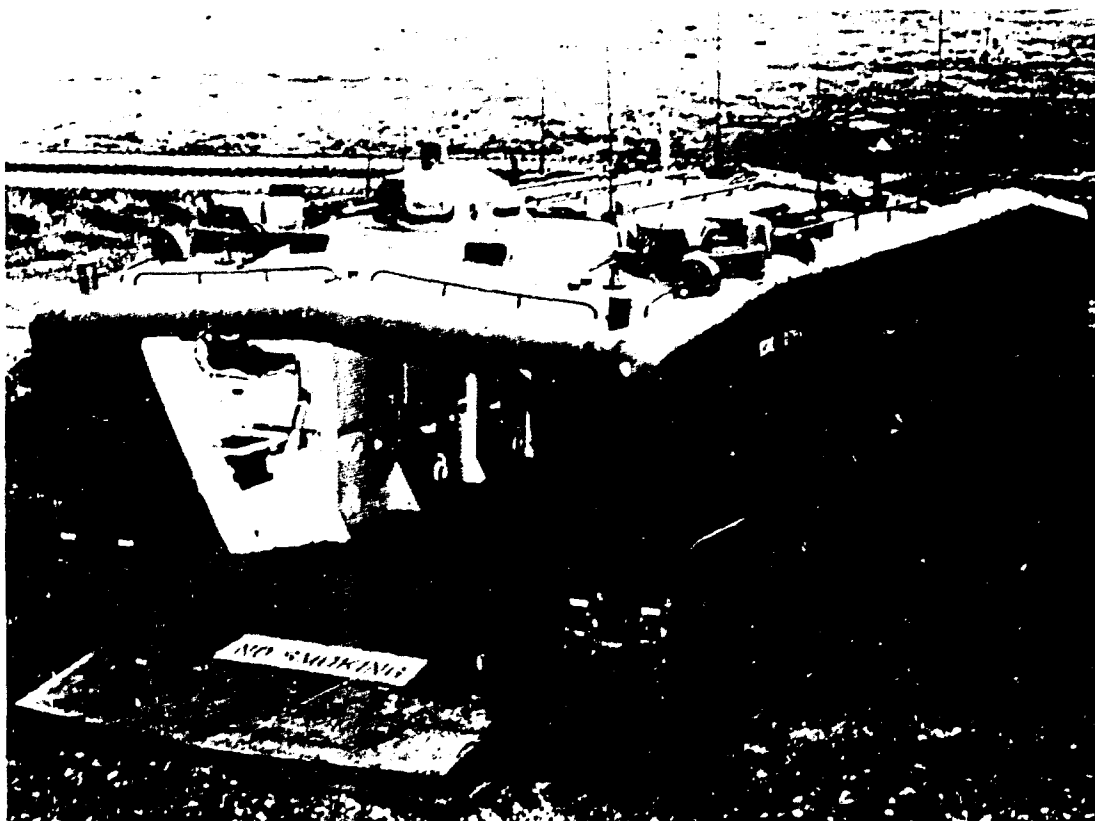
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e. Cruising range, loaded	
(1) Land	190 miles
(2) Water	9.5 hrs/57 miles
f. Fuel consumption	
(1) Land	? gal/mile
(2) Water	47 gal/hr
g. Gradeability	
(1) Forward slope	70%
(2) Side slope	60%
h. Angle of approach	75°
i. Angle of departure	35°
j. Vehicle cone index	55
k. Mobility index	65
l. Obstacle ability	
(1) Trench	12 ft
(2) Vertical	3 ft
m. Draft, loaded	6 ft 2 in.
n. Freeboard loaded (fwd/aft)	25 in./18 in.

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TAB G (Landing Vehicle, Tracked, Command, LVTP5A1 (CMD) to Appendix 5 (Amphibious Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



F-5-G-1

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1. (U) GENERAL. This armored, amphibious, assault, command vehicle can be employed as a mobile command post, fire support coordination center, or observation post. It can accommodate additional communications equipment, field desks, chairs, map boards, and other required command post equipment. It can negotiate a 15 foot surf. The vehicle is in the Marine Corps inventory.

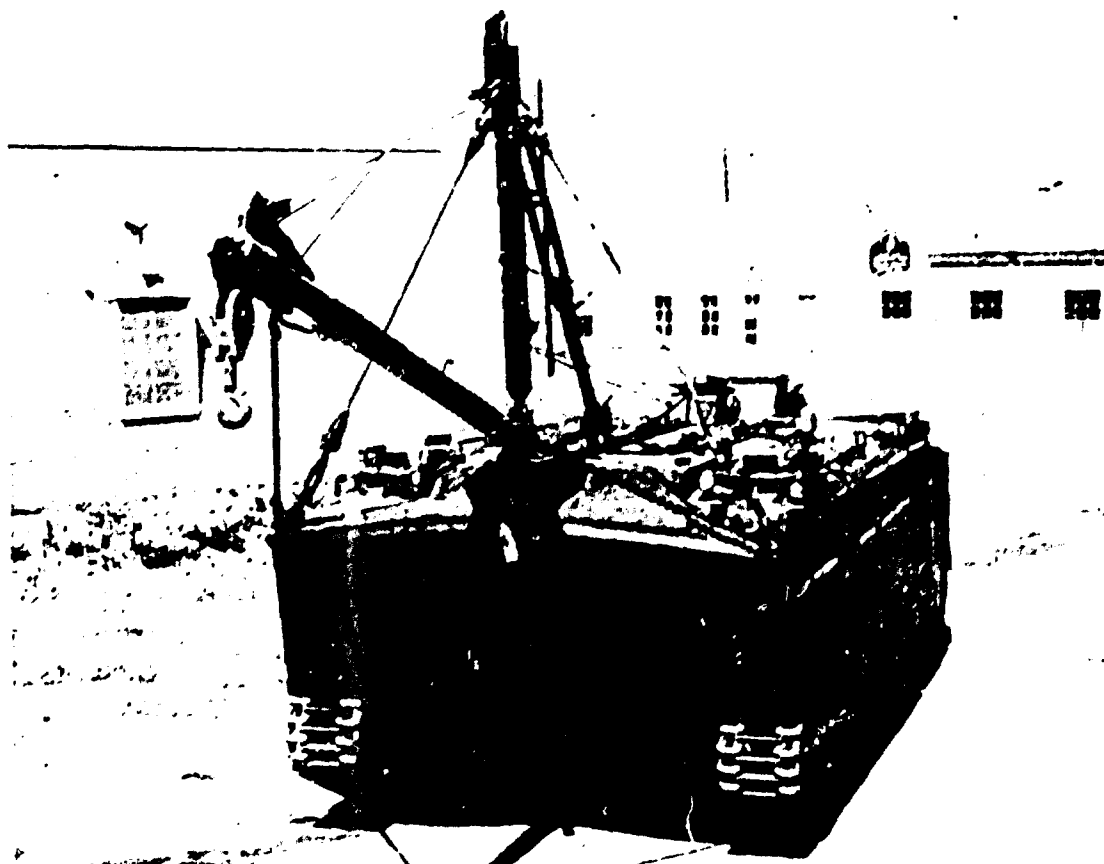
2. (U) VEHICLE CHARACTERISTICS. The LVTP5A1 CMD vehicle has characteristics identical to those of the conventional LVTP5A1 described in Tab F, except as set forth below:

- | | |
|-------------------|--|
| a. Passengers | 12 |
| b. Cargo capacity | Designed as a communications vehicle and does not normally transport cargo |
| c. Weight | |
| (1) Net | 67,200 lbs |
| (2) Combat loaded | 75,700 lbs |

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TAB H (Landing Vehicle, Tracked, Recovery, LVTRLA1) to Appendix 5 (Amphibious Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



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1. (U) GENERAL. This armored, amphibious, recovery and maintenance vehicle is employed to retrieve and repair other amphibious vehicles during the conduct of amphibious or land operations. It is capable of negotiating a 15 foot surf. The vehicle is in the Marine Corps inventory.

2. (U) VEHICLE CHARACTERISTICS

a. Weight

- | | |
|-------------------|------------|
| (1) Net | 75,900 lbs |
| (2) Combat loaded | 83,000 lbs |

b. Dimensions

- | | |
|--------------------------------|------------------------------|
| (1) Length | 31 ft 9 in. |
| (2) Height (overall/reducible) | 18 ft 1 in./
10 ft 10 in. |
| (3) Width | 11 ft 5-1/2 in. |
| (4) Track effective length | 19 ft 4 in. |
| (5) Track C-C | 11 ft 8 in. |
| (6) Ground clearance | 11 in. |
| (7) Cargo space | None |

c. Vehicle crew

3

d. Passengers (emergency only)

10

e. Fuel

- | | |
|--------------|----------------|
| (1) Capacity | 456 gal |
| (2) Type | 80 octane, gas |

f. Electrical system

24 volt

g. Engine

Continental, LV-1790-1,
V12, 810 hp

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h. Transmission

Allison-Crossdrive,
hydraulic torque con-
verter

i. Running gear

(1) Sprockets

17 teeth each,
1 each side

(2) Return idlers

5 pair per side

(3) Track blocks

Steel, 134 blocks
per side

(4) Wheels

Dual, 9 per side

j. Ground pressure

7.75 psi

3. (U) OPERATIONAL CHARACTERISTICS

a. Turning radius (maximum)

(1) Land pivot

27 ft

(2) Water

70 ft

b. Land propulsion

Track

c. Water propulsion

Track

d. Speed (maximum)

(1) Land

30 mph

(2) Water

6 mph

e. Cruising range

(1) Land

190 miles

(2) Water (hours/miles)

9.5/57

f. Fuel consumption

(1) Land

2.4 gal/mile

(2) Water

47 gal/hr

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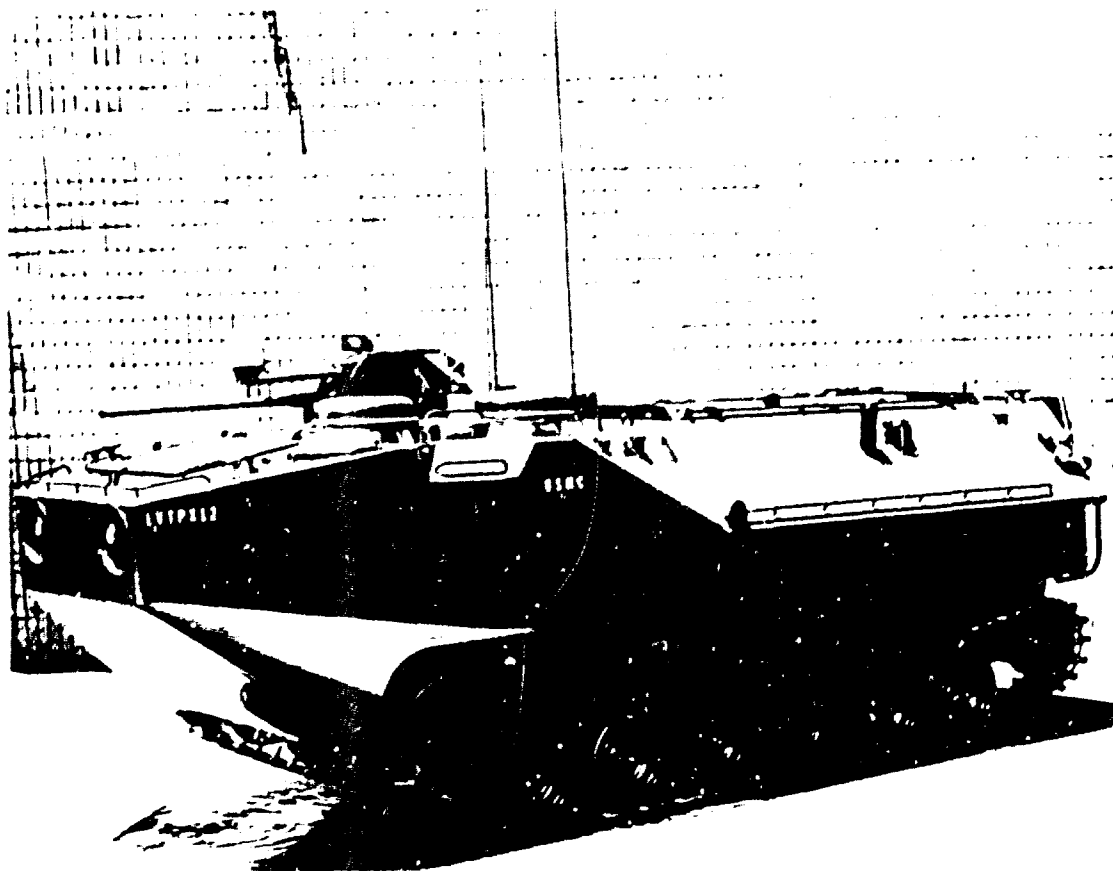
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g. Gradeability	
(1) Forward slope	70%
(2) Side slope	60%
h. Angle of approach	66°
i. Angle of departure	35°
j. Vehicle cone index	53
k. Mobility index	60
l. Obstacle ability	
(1) Trench	12 ft
(2) Vertical	3 ft
m. Draft, loaded	6 ft 3 in.
n. Freeboard, loaded (fwd/aft)	28 in./16 in.

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TAB I (Landing Vehicle, Tracked, Personnel, Experimental, LVTPX1 to
Appendix 5 (Amphibious Vehicles) to Annex F (Vehicle Characteristics
tics and Descriptions) to First Interim Report on Tactical Capability
for Amphibious Assault and Post Assault Operations in the Low-Range
Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968)
(U)



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1. (U) GENERAL. This armored, amphibious, assault personnel and cargo carrier can be employed to transport troops, equipment and cargo through a ten foot surf to inland points as required. It operates on land or in water without modification. This prototype vehicle is expected to be in the Marine Corps inventory in July 1970.

2. (U) VEHICLE CHARACTERISTICS

a. Weight

- | | |
|-------------------|------------|
| (1) Net | 38,650 lbs |
| (2) Combat loaded | 50,000 lbs |

b. Payload 10,000 lbs

c. Dimensions

- | | |
|--------------------------------|----------------------------|
| (1) Length | 26 ft |
| (2) Height (overall/reducible) | 10 ft 4 in./
9 ft 7 in. |
| (3) Width | 10 ft 6 in. |
| (4) Track effective length | 12 ft 11 in. |
| (5) Track C-C | 10 ft |
| (6) Ground clearance | 16 in. |
| (7) Cargo space | |

(a) Length of cargo opening in top deck	9 ft
---	------

(b) Width of cargo opening in top deck	5 ft
--	------

(c) Length	14 ft
------------	-------

(d) Width	6 ft
-----------	------

(e) Height	5 ft 6 in.
------------	------------

d. Vehicle crew 3

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- e. Passengers 25
- f. Fuel
 - (1) Capacity 150 gal
 - (2) Type Diesel
- g. Electrical system 24 volt
- h. Engine Detroit Diesel 8V551, V8, 400 hp
- i. Transmission FMC HS 400, torque converter
- j. Running gear
 - (1) Sprockets 11 teeth each, 1 each side
 - (2) Return idlers 1 each side
 - (3) Track blocks Steel, 84 blocks per side
 - (4) Wheels Dual, 6 per side
- k. Ground pressure 7.7 psi

3. (U) OPERATIONAL CHARACTERISTICS

- a. Turning radius Turns within own length in water and on land
- b. Land propulsion Track
- c. Water propulsion (primary/secondary) Water jets/track
- d. Speed, loaded (maximum)
 - (1) Land 40 mph
 - (2) Water 8 mph
- e. Cruising range, loaded
 - (1) Land 300 miles
 - (2) Water 70 miles

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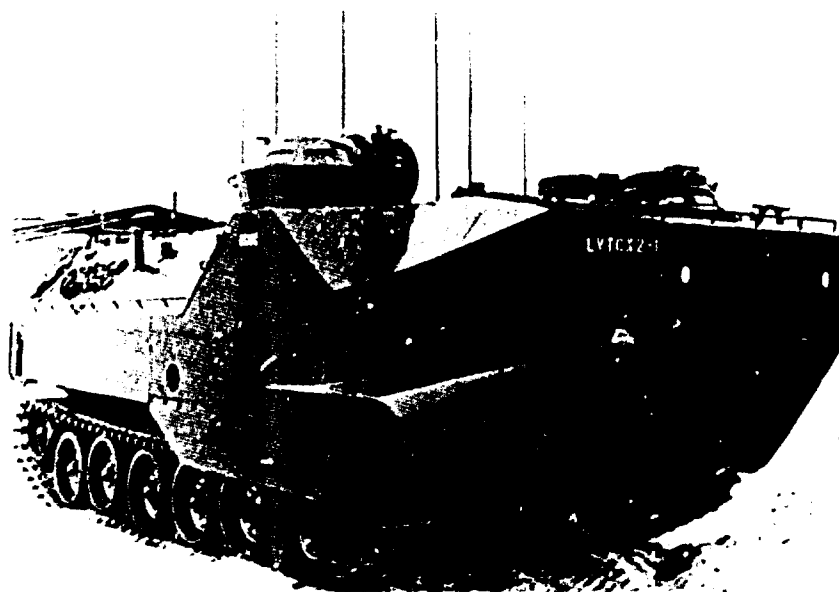
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f. Fuel consumption	
(1) Land	1.6 gal/mile
(2) Water	26 gal/hr
g. Gradeability	
(1) Forward slope	60%
(2) Side slope	60%
h. Angle of approach	39°
i. Angle of departure	37°
j. Vehicle cone index	47
k. Mobility index	49
l. Obstacle ability	
(1) Trench	8 ft
(2) Vertical	3 ft
m. Draft, loaded	6 ft
n. Freeboard, loaded (fwd/aft)	10 in.

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TAB J (Landing Vehicle, Tracked, Command, Experimental, LVTCX2) to Appendix 5 (Amphibious Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



F-5-J-1

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1. (U) GENERAL. This armored, amphibious, assault, command vehicle can be employed as a mobile command post, fire support coordination center, or observation post. It can accommodate additional communications equipment, field desks, chairs, mapboards, and other required command post items. It operates on land or in water without modification and can negotiate a ten foot surf. This prototype vehicle is expected to be in the Marine Corps inventory in July 1970.

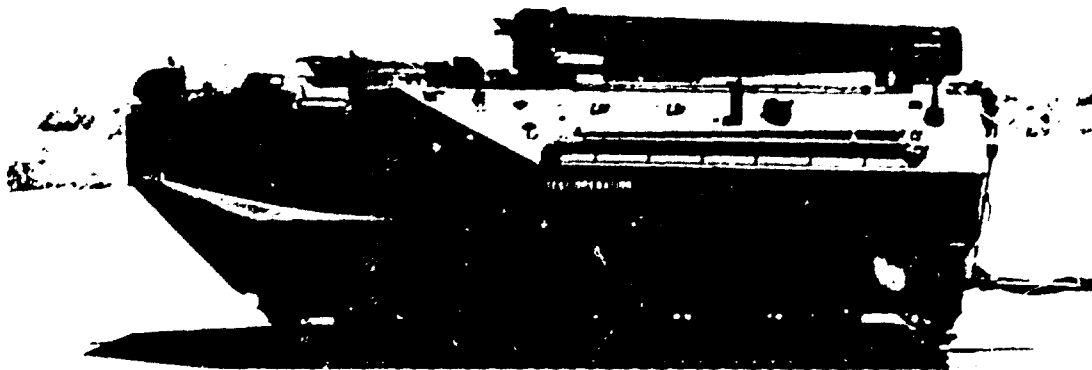
2. (U) VEHICLE CHARACTERISTICS. The LVTCX2 has characteristics identical to those of the conventional LVTPX12 described in Tab I, except as set forth below:

- | | |
|---------------------------|--|
| a. Passengers | 10 |
| b. Cargo capacity | Designed as a communications vehicle and does not normally transport cargo |
| c. Weight (combat loaded) | 44,500 lbs |

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TAB K (Landing Vehicle, Tracked, Recovery, Experimental, LVTRX2) to Appendix 5 (Amphibious Vehicles) to Annex F (Vehicle Characteristics and Descriptions) to First Interim Report on Tactical Mobility for Amphibious Assault and Post Assault Operations in the Mid-Range Period (FY 1970-79) (CMC Project No. 30-68-08 of 10 December 1968) (U)



F-5-K-1

UNCLASSIFIED

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1. (U) GENERAL. This armored, amphibious, recovery and maintenance vehicle is employed to retrieve and repair other amphibious vehicles during the conduct of amphibious or land operations. It operates on land or in water without major modification and can negotiate a ten foot surf. This prototype vehicle is expected to be in the Marine Corps inventory in July 1970.

2. (U) VEHICLE CHARACTERISTICS

a. Weight (combat loaded)	52,000 lbs
b. Dimensions	
(1) Length	26 ft 6 in.
(2) Height (lowest operable)	10 ft 9 in.
(3) Width	10 ft 6 in.
(4) Track effective length	12 ft 11 in.
(5) Track C-C	10 ft
(6) Ground clearance	16 in.
(7) Cargo space	None
c. Vehicle crew	5
d. Passengers (emergency only)	5
e. Fuel	
(1) Capacity	180 gal
(2) Type	Diesel
f. Electrical system	24 volt
g. Engine	Detroit Diesel, 8V53T, V8, 40 hp
h. Transmission	FMC HS400, torque converter

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- i. Running gear
 - (1) Sprockets 11 teeth each,
1 each side
 - (2) Return idlers 1 each side
 - (3) Track blocks Steel, 84 blocks
per side
 - (4) Wheels Dual, 6 per side
- j. Ground pressure 8.0 psi

3. (U) OPERATIONAL CHARACTERISTICS

- a. Turning radius Turns within own
length in water and
on land
- b. Land propulsion Track
- c. Water propulsion (primary/secondary) Water jets/track
- d. Speed, loaded (maximum)
 - (1) Land 40 mph
 - (2) Water 8 mph
- e. Cruising range, loaded
 - (1) Land 300 miles
 - (2) Water 70 miles
- f. Fuel consumption
 - (1) Land 1.6 gal/mile
 - (2) Water 26 gal/hr
- g. Gradeability
 - (1) Forward slope 60%
 - (2) Side slope 60%
- h. Angle of approach 40°
- i. Angle of departure 40°

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j. Vehicle cone index	47
k. Mobility index	49
i. Obstacle ability	
(1) Trench	8 ft
(2) Vertical	3 ft
m. Crane	
(1) Lift capability	9.5 tons
(2) Reach capability	21.5 ft
n. Draft, loaded	6 ft
o. Freeboard, loaded (fwd/aft)	10 in.

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Security Classification

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13. ABSTRACT Volume III provides the characteristics and performance data for ground vehicles considered by the Tactical Mobility study. These vehicles have been treated in various categories: general purpose vehicles, special purpose/equipment vehicles, logistic support trailers, high mobility vehicles, and amphibious vehicles.			

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