

**ARMORED CAVALRY ASSAULT VEHICLE (ACAV)
(Based upon the APC M113A1)**

GENERAL DATA

Crew: 5 to 9 men
 Length: Overall: 191.5 inches
 Width: Over track shrouds: 105.75 inches
 Height: Over MG shields: 99.43 inches
 Tread: 85.0 inches
 Ground Clearance: 16.1 inches
 Weight, Combat Loaded: approx. 24,000 pounds
 Weight, Unstowed: approx. 21,000 pounds
 Power to Weight ratio: 17.7 hp/ton
 Ground Pressure: Zero penetration 7.6 psi

ARMOR
 Type: Hull, rolled 5083/5086 1132 aluminum armor, welded assembly

Hull Thickness	Actual	Angle w/Vertical
Front, Upper	1.50 inches (38mm)	45 degrees
Lower	1.50 inches (38mm)	30 degrees
Sides, Upper	1.75 inches (44mm)	0 degrees
Lower	1.25 inches (32mm)	0 degrees
Rear, On Ramp	1.50 inches (38mm)	8 degrees
Off Ramp	1.50 inches (38mm)	9 degrees
Top	1.50 inches (38mm)	90 degrees
Floor	1.125 inches (29mm)	90 degrees

Steel armor shields provided for .50 caliber and 7.62mm MG.
 Ballistic plate added to bottom front of hull.

ARMAMENT

- (1) .50 caliber MG HB M2 on commander's cupola
- (2) 7.62mm M60 MG on hull roof
- (1) 40mm M79 grenade launcher in troop compartment

AMMUNITION

- 2000 rounds .50 caliber
- 4000 rounds 7.62mm for M60 MG
- 48 rounds 40mm for M79 grenade launcher

VISION EQUIPMENT

Vision Devices	Direct	Indirect
Driver	Hatch	Periscope M17 (4) Periscope M19 (infrared) (1)
Commander	Hatch	Periscope M17 (5)
Troop Compartment	Roof Hatch	None

Total Periscopes: M17 (9), M19 (infrared) (1)

ENGINE

Make and Model: General Motors 6V53
 Type: 6 cylinder, 2 cycle, vee
 Cooling System: Liquid Ignition: Compression
 Displacement: 318 cubic inches
 Bore and Stroke: 3.875 x 4.5 inches
 Compression Ratio: 17.0:1
 Gross Horsepower: (max) 212 hp at 2800 rpm
 Gross Torque: (max) 492 ft-lbs at 1300 rpm
 Weight: 1310 pounds, dry
 Fuel: diesel oil MDN-VV-F-800 95 gallons
 Engine Oil: 22 quarts

POWER TRAIN

Transfer Case: Overall ratio 1.286:1 overdrive
 Transmission: Allison TX-100
 Torque Converter: Hydraulic, single stage, multiphase w/lockup
 Torque Converter Stall Ratio: 3.5:1
 Transmission Ratios: 1st 3.81:1 3rd 1.00:1
 2nd 1.936:1 reverse 4.35:1

Steering: DS200 controlled differential, steering brake levers
 Input Ratio: 1.28:1 Steering Ratio: 1.1 to 1.786:1

Brakes: Differential band
 Final Drive: Spur gear Gear Ratio: 3.928:1
 Drive Sprockets: At front of vehicle with 10 teeth
 Pitch Diameter: 19.618 inches

RUNNING GEAR

Suspension: Flat track, torsion bar
 10 individually sprung dual road wheels (5/track)
 Tire Size: 24 x 2.1 inches
 Dual adjustable idler at rear of each track
 Idler Size: 21 x 2.1 inches
 Shock absorbers on first and last road wheels on each side
 Tracks: Center guide T130E1
 Type: Single pin, 15 inch width, steel w/detachable rubber pad
 Pitch: 6 inches
 Shoes per Vehicle: 127 (63 left, 64 right)
 Ground Contact Length: 105 inches

ELECTRICAL SYSTEM

Nominal Voltage: 24 volts DC
 Main Generator: (1) 28 volts, 100 amperes, driven by main engine
 Auxiliary Generator: None
 Battery: (2) 12 volts in series

COMMUNICATIONS

Radio: AN/GRC-3 thru 8, AN/VRC-24, AN/GRC-19, AN/VRC-1 thru 3
 AN/PRC-8 thru 10, AN/GRR-5 or AN/VRC-12
 Interphone: AN/UIC-1, 2 stations

FIRE PROTECTION

- (1) 5 pound carbon dioxide, fixed
- (1) 5 pound carbon dioxide, portable

PERFORMANCE

Maximum Speed: Level road	40 miles/hour
Water	3.6 miles/hour
Maximum Tractive Effort: TE at stall	19,800 pounds
Per cent of Vehicle Weight: TE/W	82 per cent
Maximum Grade:	60 per cent
Maximum Trench:	5.5 feet
Maximum Vertical Wall:	24 inches
Maximum Forging Depth:	floats
Minimum Turning Circle: (diameter)	26 feet
Cruising Range: Roads	approx 300 miles