



The Morrow Project



By David Little

Armored Security Vehicle 150 (ASV-150)

ASV features:

- GVW: 27,400 lbs. (C-130 transportable weight of 25,545 lbs.)
- Dimensions: L 246 in., W 101 in., H 102 in.
- Speed and Mobility: Comparable to HMMWV, 63 MPH
- Range: 400+ miles
- Payload: 3,560 lbs.
- CTIS: 4 settings and run flat
- Suspension: Fully independent coil springs
- Armament: 40mm MK 19, .50 caliber M2 Upgunned Weapons Station equipped with smoke grenade launcher system
- Turret: Day/Night Fire Control System effective to 2200 m
- Full spill liner
- Armor Protection: Meets desired baseline protection without add-on armor kit
- Fording: 60 inches
- Deployability: Roll-on/roll-off C-130 transportable
- Human Factors Engineering: Spacious human-engineered crew stations offering exceptional crew operability and comfort.
- Parts commonality: M939A2 engine; FMTV transmission, differentials, wheelends and CTIS; powertrain commonality: 64% of all parts are Government Standard DOD.
- The ASV 150 incorporates major improvements over the current LAV 150ST. Major product improvements include increased survivability, independent suspension, improved human factors and reduced overall height.

DISCUSSION

The ASV is a light armored wheeled vehicle offering substantial increases in survivability and lethality. Light makes it deployable. Wheeled makes it extremely mobile and versatile for employment across the operational continuum and at vastly reduced O&S costs. Armored makes it survivable with baseline protection against 7.62mm ball to the entire vehicle, and managed protection to the crew, gunner, and ammunition storage areas against 12.7mm AP, 155mm fragments at 20 meters, and 12lb anti-tank blast under the tires. The ASV design maximizes survivability with Ingenieurbuero Diesenhof (IBD) modular expandable armor system (MEXAS), utilizing ceramic composite applique on exterior and spall liner on interior surfaces. The turret system protects the gunner, increases lethality by providing day/night target acquisition and provides a fire control system effective to the maximum range of the MK-19 GMG.

CREW: 3 (Driver, Commander & Gunner) + 2 Passengers
 CONFIGURATION: 4 x 4
 LENGTH: 6.40 m
 WIDTH: 2.54 m
 HEIGHT (TURRET): 2.53 m
 (HULL): 1.98 m
 WEIGHT (EMPTY): 11,818 kg
 (LOADED): 13,318 kg
 CARGO CAPACITY: 2000 kg
 MAX. TOWED WEIGHT: 2000 kg
 GROUND CLEARANCE (AXLES): 0.38 m
 (HULL): 0.53 m
 TURNING RADIUS: 10.00 m
 MAX. ROAD SPEED: 92.00 km/h
 MAX. CROSS-COUNTRY SPEED: 30.00 km/h
 MAX. WATER SPEED: 5.00 km/h
 FORDING DEPTH: Amphibious
 GRADIENT: 60%
 SIDE SLOPE: 30%
 VERTICAL OBSTACLE: 0.61 m
 TRENCH: 0.5 m
 ARMOUR CLASS: 100 all around
 ARMAMENT: M2HB .50 cal HMG, Main
 40 mm Mk 19 Mod. 3 Grenade Launcher, Co-Axial
 MAXIMUM RATE OF TURRET, POWER TRAVERSE (FAST): 45ø/ second
 (SLOW): 10ø/ second
 MAXIMUM RATE OF TURRET, MANUAL ELEVATION: 10ø/ second
 MAIN & CO-AXIAL, GUN ELEVATION/ DEPRESSION: +45ø/ -8ø
 TURRET TRAVERSE: 360ø
 AMMUNITION: 210/1050 .50 cal (Ready/Stored)
 100/500 40 mm
 4 Anti-Personal, 4 Smoke/ 12 AP, 12 Smoke
 SMOKE LAYING EQUIPMENT: 2 x 4 Tube M257 Smoke Launcher
 EQUIPMENT: See Attached Sheets
 NOTES:

- o The vehicle has a 500,000 candlepower spotlight mounted co-axially with the main gun, that will illuminate up to 1.5 kms away.
- o The turret is a 1 man turret.
- o Winch (Max 9072 kg Tow Limit, 45 m x 12.7 mm Tow Cable).
- o Vehicle is NBCW Proof and Amphibious.
- o Tires are 14.50" x 21" Tubeless Tires, with Hutchinson Run Flat Insert, which are good for 50 Kms once flat.
- o Fusion Engine can be removed and replaced in 1 hour, with proper tools and crane.

AMMUNITION:

M2HB HMG .50 cal

Short Burst = 10 rds, Medium = 20 rds, Long = 30 rds.

Mk 19 Mod 3 40 mm Grenade Launcher

[illegible]

H = High Explosive Dual Purpose W = White Phosphorus

Short Burst = 3 rds, Medium = 6 rds, Long = 9 rds

M257 66 mm Smoke/ Anti-Personnel Grenade Launchers

Left	Right
SA/AS	SA/AS
SA/AS	SA/AS
SA/AS	SA/AS
SA/AS	SA/AS

A = Anti-Personal S = Smoke

Fired in volleys of 4 or 8 at a time.

When firing mark off one side of the slash.

Armbrust 300

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