Abrams Upgrade

Provides mobile, protected firepower for battlefield superiority.

UNITED STATES ARMY





The Abrams tank modernization strategy comprises two variants, the M1A1 and M1A2, and supports the Army Campaign Plan by providing the lethality, survivability, and fightability necessary to defeat advanced threats well into the future. Abrams closes with and destroys enemy forces on the integrated battlefield using mobility, firepower, and shock effect. The 120mm main gun on the M1A1 and M1A2, combined with the powerful 1500-horsepower AGT turbine engine and special armor, make the Abrams tank particularly effective against large concentrations of heavy armor forces on a highly lethal battlefield.

Features of the M1A1 modernization program include increased armor protection, suspension improvements and a nuclear, biological, and chemical (NBC) protection system that increases survivability in a contaminated environment. An integrated applique computer, an embedded diagnostic system, a second-generation thermal sensor, and a far-target-designation capability can be incorporated on the M1A1.

The M1A2 modernization program includes a commander's independent thermal viewer, an improved commander's weapon station, position navigation equipment, distributed data and power architecture, embedded diagnostic system, and improved fire control system.

The M1A2 system enhancement program (SEP) adds second-generation thermal sensors and a thermal management system. The M1A2 SEP includes upgrades to processors/memory that enable the M1A2 to use the Army's common command and control software, enabling the rapid transfer of digital situational data and overlays.

The Abrams modernization strategy also includes the total integrated revitalization (TIGER) program, an intensive AGT 1500 engine rebuild effort consisting of engine data collection, transition of parts management to the contractor,

and implementation of commercial production practices of engine overhaul at Anniston Army Depot. The Abrams integrated management (AIM) overhaul program recapitalizes the high optempo of the M1A1 tank fleet. The Abrams parts obsolescence program tracks obsolete components to ensure the availability of spare parts and maintains a database of current parts to ensure that a complete package is intact for any new production.

Length (feet):	32.04	32.04	32.04	32.04
Width (feet):	12.0	12.0	12.0	12.0
Height (feet):	7.79	8.0	8.0	8.0
Top speed	45.0	41.5	41.5	42
(miles per				
hour):				
Weight (tons):	61.4/62.8	67.6	68.4	69.5
Armament:	105mm	120mm	120mm	120mm
Crew:	4	4	4	4

M1A1

M1A2 M1A2 SEP

PROGRAM STATUS

- **4QFY04** M1 to M1A2 SEP upgrade production complete
- FY05 M1A2 to M1A2 SEP retrofit program continues for a total of 803 M1A2 SEP tanks, equipping 4th ID, 1st CAV, 3rd ACR, and the 11th ACR
- FY99-08 AIM continues fielding to the 1st ID, 2nd ID, 1st AD, and the 3rd ID

PROJECTED ACTIVITIES

- FY05 M1A2 SEP retrofit production continues. The Army's M1A2 SEP fleet requirement is 803 vehicles.
- FY05 Continue fielding M1A2 SEPs to 4th ID and M1A1 AIM to the 2nd ID
- FY05 Initiation of TIGER Phase II



CONTRACTORS

General Dynamics (Sterling Heights, MI; Warren, MI; Muskegon, MI; Scranton, PA; Lima, OH; Tallahassee, FL); Honeywell (Phoenix, AZ) Raytheon (McKinney, TX).

INVESTMENT COMPONENT Recapitalization

• Production and Deployment