

LOCKHEED MARTIN



ADATS

Low-Level Air Defense Against Ground, Rotary- and Fixed-Wing Threats

ADATS

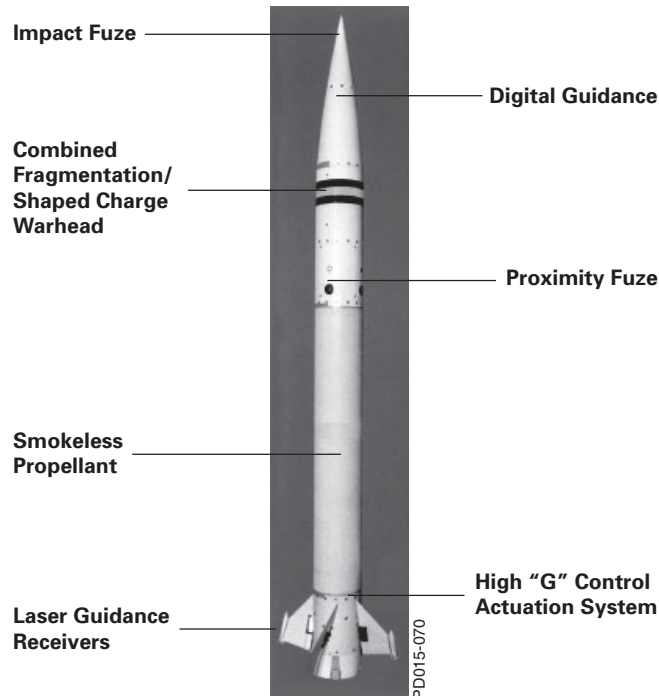
Description:

ADATS, the world's premier low-level air defense system, uses pulse-Doppler radar and electro-optics to detect targets and lethally accurate laser beamrider-guided missiles.

ADATS employs an integrated command, control, and communications (C³) network that can coordinate the fire power of up to six ADATS systems.

The ADATS system is highly mobile. It is currently integrated into M-113 and M-3 (Bradley) vehicles, and integration with numerous other platforms is feasible.

ADATS Missile



Features:

- **Lethal:** Large dual-purpose blast fragmentation and shaped charge warhead defeats both airborne targets and armoured ground targets
- **Effective:** Very short initial reaction time; 10 km maximum range; Mach 3+ maximum speed; re-engagement in less than 2 seconds; defeats all available countermeasures
- **Maintainable:** Modular system (line replaceable units); extensive use of built-in test; forward maintenance concept; MTTR 1 hour at first line; MTBF >85 hours
- **Transportable:** Compatible with road, rail and air transport; complete system transportable by C-130 aircraft with minimum preparation
- **Wooden Round:** Missile in canister maintains high reliability for 10 years without testing
- **Quick Reload:** Reload all 8 missiles in 10 minutes without mechanical loaders
- **Integrated C³ System:** Can link with higher and lower echelon command facilities or defense assets in real time using frequency-agile radios or land lines

Specifications:

Mounted on a totally mobile and self-contained vehicle capable of speeds up to 60 km/hr, ADATS uses state-of-the-art electro-optics with a heritage of the highly successful Apache TADS/PNVIS system, pulse-Doppler acquisition radar, and maneuverable, lethal missiles to defeat the most threatening ground and air targets.

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System Performance

Missile intercept range: 10 km
Missile ceiling: 7,000m
Missile velocity: Mach 3+
Passive target tracking
Immune to countermeasures

Engagement Capability

Azimuth: 360 deg
Elevation: -10 to 85 deg
Air targets
Ground targets

Search Radar

X-band pulse-Doppler
Maximum range: 25 km
Dual beam elevation
Search-on-the-move capability
Track-while-scan
Automatic IFF/SIF
Frequency and PRF agility (enhanced ECCM)

Electro-Optic System

High-resolution FLIR (8 to 12 micron)
High-resolution TV
Digital CO₂ laser
Laser rangefinder (1.06 micron)
IR missile localizer
Built-in boresight self-alignment system

Missile Round

Missile
Length: 2.05m
Diameter: 15.2 cm
Launch weight: ~51 kg

Canister
Length: 2.20m
Diameter: 27.3 cm

Dual-purpose high-explosive warhead

Shaped charge and fragmentation weight: 12kg
armor penetration: >90 cm
Fuzing system
Proximity fuze plus mechanical impact fuze

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