

## Stinger Missile Short-Range Air Defense



**Stinger Missile is the answer: lethal, survivable, agile, versatile, responsive, deployable and sustainable.**

### Benefits

- Accurate and lethal against airborne targets
- Multimission versatility
- Combat proven
- Cost effective

### Accurate and Lethal

Stinger is accurate and lethal against helicopters, fixed-wing aircraft, cruise missiles and unmanned aerial vehicles (UAVs). The Stinger is a lightweight, fire-and-forget, two-color, short-range air defense missile designed for maximum lethality and survivability. The advanced passive, two-color infrared/ultraviolet (IR/UV) detector and advanced algorithms optimize target acquisition and ensure effectiveness against all known countermeasures. Stinger has embedded software to handle all known threats. In addition, the seeker combined with proportional navigation guidance enables the missile to acquire, track and engage targets at any aspect.

Stinger's agility, supersonic speed, and advanced guidance and control system maximize accuracy. Superior lethality is derived from hit-to-kill

accuracy, a high-explosive warhead and the impact force of Stinger at speeds up to Mach 2. The combination of speed, lethality and a proven — greater than 90 percent — success rate in reliability ensures Stinger will be a lethal force.

### Multimission Versatility

Stinger is a versatile multimission weapon system and is deployed on more than 2,500 systems and platforms worldwide. The Stinger missile round is common to all of these platforms and is used and interchanged without modification.

Ground-based units use Stinger for air defense missions in the man-portable air defense system (MANPADS) configuration or integrated on a variety of vehicles or ground mounts.

Aviation units use Stinger for counter-air missions on helicopters, and Stinger

integration can be expanded to UAVs and fixed-wing aircraft.

Naval units use Stinger for surface protection missions on naval vessels.

### Combat Proven

Stinger has been combat proven in four major conflicts and has more than 269 fixed-wing and rotary-wing kills. In addition, Stinger is internationally deployed in more than 19 countries, and the U.S. Army will maintain Stinger in its inventory through 2018.

### Cost Effective

Stinger is a low-cost system and has been in production since 1987 with more than 50,000 missiles produced to date. Stinger is a certified missile round that requires no maintenance, thus minimizing life-cycle costs.



# Stinger Missile



**Redeye**

- Focus on fixed-wing threat
- Limited to crossing/outgoing aspects, low-G maneuvers

**Basic Stinger**

- Performs in all-aspect engagements
- High-speed, high-G targets
- IR counter-countermeasures

**Stinger-POST**

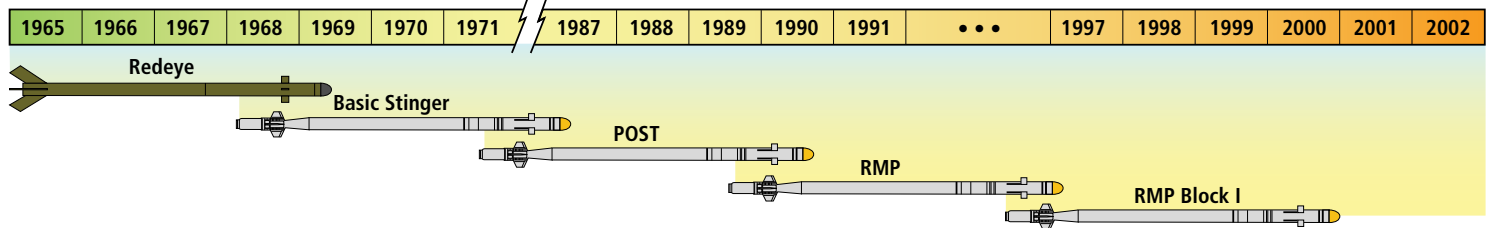
- Innovative IR/UV detector
- Improved performance in clutter
- Advanced IR counter-countermeasures

**Stinger-RMP**

- Advanced hardware/software to counter evolving IR countermeasures threat
- Embedded logic to meet all current threats

**Stinger-RMP Block I**

- Platform/gunner workload reduction (no superelevation)
- Increased lethality — Rotor wing and small targets
- Enhanced performance in all-aspect engagements



## Stinger Missile Specifications

<b>Guidance:</b>	Advanced proportional navigation	
<b>Seeker:</b>	Passive IR/UV tracking fire and forget	
<b>Speed:</b>	Supersonic	
<b>Weight:</b>		
<b>Missile:</b>	23 lb	10.4 kg
<b>Missile in Tube:</b>	28 lb	12.7 kg
<b>Diameter:</b>		
<b>Missile:</b>	2.75 in	6.9 cm
<b>Missile in Tube:</b>	2.87 in	7.3 cm
<b>Length:</b>		
<b>Missile:</b>	58 in	147 cm
<b>Missile in Tube:</b>	60 in	152 cm

## Stinger Missile Characteristics

- Two-color detector with rosette scan allows the missile to effectively discriminate targets from IR countermeasures and background clutter
- Rosette scan seeker, roll frequency sensor, rolling airframe and advanced proportional navigation provide hit-to-kill guidance accuracy against a wide range of maneuvering and nonmaneuvering targets
- Block I variants use a roll frequency sensor to provide trajectory shaping
- Hemispherical dome, optics design and two-axis gimbal system provide acquisition and tracking throughout the entire field-of-regard
- High-explosive impact/penetration warhead enhances missile lethality
- Eject motor ensures a safe separation distance from the soldier or platform before flight motor ignition
- Boost/sustain flight motor provides, and maintains, supersonic missile speeds resulting in high maneuver capability and significant kinematic energy at target intercept
- More than 1,500 tests to date with greater than 90 percent reliability

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