SAM Bty (I-HAWK [P2, HEOS]) - 36x Bty

Germany [FRG/Reunified]

Type: Mobile Vehicle(s)
Commissioned: 1985
Operator: Army
Length: 0 m
Width: 0 m
Crew: 1



Sensors / EW:
- I-HAWK Electro-Optical Sensor [HEOS] - Visual, Visual, Target Tracking and Identification TV Camera, Max range: 148.2 km
- AN/MPQ-57 HPI - (I-HAWK) Radar, Radar Illuminator, Medium-Range, Max range: 83.3 km
- AN/MPQ-50 PAR - (I-HAWK) Radar, Radar, Target Indicator, 2D Surface-to-Air, Max range: 100 km
- AN/MPQ-51 ROR - (I-HAWK) Radar, Radar, Range-Only (RO), Max range: 64.8 km
- AN/MPQ-55 ICWAR - (I-HAWK) Radar, Radar, Target Indicator, 3D Surface-to-Air, Max range: 74.1 km

---

Weapons / Loadouts:
- MIM-23C I-HAWK - (1983, Improved ECCM) Guided Weapon. Air Max: 40.7 km.

OVERVIEW: The Raytheon MIM-23 Hawk (Homing All the Way Killer) is a U.S. medium range surface-to-air missile. The Hawk was initially designed to destroy aircraft and was later adapted to destroy other missiles in flight. The missile entered service in 1960, and a program of extensive upgrades has kept it from becoming obsolete. It was superseded by the MIM-104 Patriot in United States Army service by 1994. It was finally phased out of U.S. service in 2002, the last U.S. users, the U.S. Marine Corps replacing it with the man-portable infrared-guided visual range FIM-92 Stinger. The missile was also produced outside the US in Western Europe, Japan and Iran.

Although the U.S. never used the Hawk in combat, it has been employed numerous times by other nations. Approximately 40,000 of the missiles were produced. Jane's reported that the original system's single shot kill probability was 0.56; I-Hawk improved this to 0.85.

DETAILS: The Hawk system consists of a large number of component elements. These elements were typically fitted on wheeled trailers making the system semi-mobile. During the system's 40-year life span, these components were

continually upgraded.

The Hawk missile is transported and launched from the M192 towed triple-missile launcher. A self-propelled Hawk launcher, the SP-Hawk, was fielded in 1969, which simply mounted the launcher on a tracked M727 (modified M548), however the project was dropped and all activity terminated in August 1971.

The missile is propelled by a dual thrust motor, with a boost phase and a sustain phase. The MIM-23A missiles were fitted with an M22E8 motor which burns for 25 to 32 seconds. The MIM-23B and later missiles are fitted with an M112 motor with a 5 second boost phase and a sustain phase of around 21 seconds. The M112 motor has greater thrust, thus increasing the engagement envelope.

The original MIM-23A missiles used a parabolic reflector, but the antenna directional focus was insufficient, when engaging low flying targets the missile would dive on them, only to lose them in the ground clutter. The MIM-23B I-Hawk missiles and later uses a low side lobe, high-gain plane antenna to reduce sensitivity to ground clutter in addition to an inverted receiver developed in the late 1960s to give the missile enhanced ECCM ability and to increase the Doppler frequency resolution.

SPECIFICATION: Weight: 1,290 pounds (590 kg) || Length: 16 feet 8 inches (5.08 m) || Diameter: 14.5 inches (370 mm) || Warhead: 119 pounds (54 kg) blast fragmentation warhead || Engine: solid-fuel rocket engine || Wingspan: 3 feet 11 inches (1.19 m) || Guidance System: Semi-active radar homing.

PERFORMANCE: Operational Range: 45-50km || Flight Ceiling: 45,000 feet (14,000 m) || Speed: Mach 2.4 .

SOURCE: [SCO] Wikipedia http://en.wikipedia.org