

# Hellfire Family of Missiles

## INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

### MISSION

Engages and defeats individual moving or stationary advanced armor, mechanized or vehicular targets, patrol craft, buildings, or bunkers while increasing aircraft survivability.

### DESCRIPTION

The AGM-114 Hellfire Family of Missile includes the Hellfire II and Longbow Hellfire missiles. Hellfire II is a precision strike, Semi-Active Laser (SAL) guided missile and is the principal air-to-ground weapon for the Army AH-64 Apache, OH-58 Kiowa Warrior, Gray Eagle Extended Range Multipurpose (ERMP) Unmanned Aircraft System (UAS), Special Operations aircraft, Marine Corps AH-1W Super Cobra and the Air Force's Predator/Reaper UAS.

The SAL Hellfire II missile is guided by laser energy reflected off the target. It has three warhead variants: a dual warhead, shaped charge high-explosive anti-tank (HEAT) capability for armored targets (AGM-114K); a blast fragmentation warhead (BFWH)

for urban, patrol boat and other "soft" targets (AGM-114M); and a metal augmented charge (MAC) warhead (AGM-114N) for urban structures, bunkers, radar sites, communications installations, and bridges. Beginning in 2012, a Hellfire multi-purpose warhead variant (AGM-114R) will be available to the warfighter that allows selection of warhead effects corresponding to a specific target type. The AGM-114R is capable of being launched from Army rotary wing and UAS platforms and provides the pilot increased operational flexibility.

The Longbow Hellfire (AGM-114L) is also a precision strike missile using millimeter wave (MMW) radar guidance instead of the Hellfire II's semi-active laser. It is the principal anti-tank system for the AH-64D Apache Longbow helicopter and uses the same anti-armor warhead as the Hellfire II. The MMW seeker provides beyond line-of-sight fire and forget capability as well as the ability to operate in adverse weather and battlefield obscurants.

**Diameter:** 7 inches

**Weight:** 99.8–107 pounds

**Length:** 64 inches

**Maximum range:**

**Direct fire:** 7 kilometers

**Indirect fire:** 8 kilometers

**Minimum range:** .5–1.5 kilometers

### SYSTEM INTERDEPENDENCIES

None

### PROGRAM STATUS

- **Current:** Laser Hellfire II missiles are procured annually to replace combat expenditures and war reserve requirements

### PROJECTED ACTIVITIES

#### Laser Hellfire

- **Continue:** In production

#### Longbow Hellfire

- **Continue:** Sustainment activities








## ACQUISITION PHASE

Technology Development

Engineering & Manufacturing Development

Production & Deployment

Operations & Support

System Description	Production	Characteristics	Performance
<b>AGM-114A, B, C, F, FA – HELLFIRE</b> Weight = 45 kg Length = 163 cm 	1982 – 1992	A, B, C have a Single Shaped-Charge Warhead; Analog Autopilot	<ul style="list-style-type: none"> <li>Not Capable Against Reactive Armor</li> <li>Non-Programmable</li> </ul>
		F has Tandem Warheads; Analog Autopilot	<ul style="list-style-type: none"> <li>Reactive Armor Capable</li> <li>Non-Programmable</li> </ul>
<b>AGM-114K/K2/K2A – HELLFIRE II</b> Weight = 45 kg Length = 163 cm 	1993 – until complete	<ul style="list-style-type: none"> <li>Tandem Warheads</li> <li>Electronic Safe &amp; Arm Device</li> <li>Digital Autopilot &amp; Electronics</li> <li>Improved Performance Software</li> </ul>	<ul style="list-style-type: none"> <li>Capable Against 21<sup>st</sup> Century Armor</li> <li>Hardened Against Countermeasures</li> <li>K-2 adds Insensitive Munitions (IM)</li> <li>K-2A adds Blast-Frag Sleeve</li> </ul>
<b>AGM-114L – HELLFIRE LONGBOW</b> Weight = 49 kg Length = 180 cm 	1995 – 2005	<ul style="list-style-type: none"> <li>Tandem Warheads</li> <li>Digital Autopilot &amp; Electronics</li> <li>Millimeter-Wave (MMW) Seeker</li> <li>IM Warheads</li> </ul>	<ul style="list-style-type: none"> <li>Initiate on Contact</li> <li>Hardened Against Countermeasures</li> <li>Programmable Software</li> <li>All-Weather</li> </ul>
<b>AGM-114M – HELLFIRE II (Blast Frag)</b> Weight = 49 kg Length = 180 cm 	1998 – 2010	<ul style="list-style-type: none"> <li>Blast-Frag Warhead</li> <li>4 Operating Modes</li> <li>Digital Autopilot &amp; Electronics</li> <li>Delayed-Fuse Capability</li> </ul>	<ul style="list-style-type: none"> <li>For Buildings, Soft-Skin Vehicles</li> <li>Optimized for Low Cloud Ceilings</li> <li>Hardened Against Countermeasures</li> <li>WH Penetrates Target Before Detonation</li> </ul>
<b>AGM-114N – HELLFIRE II (MAC)</b> Weight = 49 kg Length = 180 cm 	2003 – until complete	<ul style="list-style-type: none"> <li>Metal-Augmented Charge – Sustained Pressure Wave</li> <li>4 Operating Modes</li> <li>Delayed-Fuse Capability</li> </ul>	<ul style="list-style-type: none"> <li>For Buildings, Soft-Skin Vehicles</li> <li>Optimized for Low Cloud Ceilings</li> <li>Hardened Against Countermeasures</li> <li>WH Penetrates Target Before Detonation</li> </ul>
<b>AGM-114P/P+ – HELLFIRE II (for UAS)</b> Weight = 49 kg Length = 180 cm 	2003 – 2012	<ul style="list-style-type: none"> <li>Shaped-Charge or Blast-Frag</li> <li>Designed for UAV Altitudes</li> <li>21<sup>st</sup> Century Armor Capability</li> </ul>	<ul style="list-style-type: none"> <li>P-2A adds Steel Frag Sleeve</li> <li>P-2B adds Tantalum Frag Sleeve</li> <li>P+ adds Enhanced IMU and SW Support, Many Customizations for Varying Battlefield</li> </ul>
<b>AGM-114R – HELLFIRE II (Bridge to JAGM- RW/UAS)</b> Weight = 49 kg Length = 180 cm 	2012- until complete	<ul style="list-style-type: none"> <li>Multi-purpose warhead</li> <li>Designed for all platforms</li> <li>Health Monitoring</li> </ul>	<ul style="list-style-type: none"> <li>For all Target Sets</li> <li>P+ capabilities</li> <li>Increased Lethality and Engagement Envelope</li> </ul>

## Hellfire Family of Missiles

### FOREIGN MILITARY SALES

#### Laser Hellfire:

Australia, Egypt, Greece, Israel, Kuwait, Netherlands, Saudi Arabia, Singapore, Spain, Taiwan

#### Direct commercial sale:

United Kingdom

#### Longbow Hellfire:

Israel, Japan, Kuwait, Singapore

#### Direct commercial sale:

United Kingdom

### CONTRACTORS

Lockheed Martin (Troy, AL)

L-3 Communications (Chicago, IL)

Alliant Techsystems (Rocket City, WV)

Moog Inc. (Salt Lake City, UT)

**Laser Hellfire Missile System, guidance section, sensor group:**

Hellfire LLC (Orlando, FL)

**Longbow Hellfire:**

Longbow LLC (Orlando, FL)

