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|  | McDonnell Douglas (now Boeing) AH-64 Apache Attack Helicopter |

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| **HISTORY:** | |
| **First Flight** | (AH-64A) 30 September 1975 (AH-64D) 15 April 1992 |
| **Service Entry** | (AH-64A) 26 January 1984 (AH-64D) 1997 |
| **CREW:** | 1 pilot and 1 weapons officer |
| **ESTIMATED COST:** | (AH-64A) $10 million (AH-64D) $35 million (new build) |
| **AIRFOIL SECTIONS:** |  |
| **Rotor Blade Root** | HH-02 |
| **Rotor Blade Tip** | NACA 64A006 |
| **DIMENSIONS:** | |
| **Length** | 58.26 ft (17.76 m) with rotors turning 48.17 ft (14.68 m) ignoring rotors |
| **Rotor Diameter** | 48.00 ft (14.63 m) |
| **Height** | 14.13 ft (4.30 m) to top of tail rotor 12.89 ft (3.84 m) to top of main rotor 16.25 ft (4.95 m) to top of radome |
| **Rotor Disk Area** | 1,809.5 ft2 (168.11 m2) |
| **WEIGHTS:** | |
| **Empty** | (AH-64A) 11,385 lb (5,165 kg) (AH-64D) 11,800 lb (5,350 kg) |
| **Normal Takeoff** | (AH-64A) 15,075 lb (6,840 kg) (AH-64D) 16,025 lb (7,270 kg) |
| **Max Takeoff** | (AH-64A) 17,650 lb (8,005 kg) (AH-64D) 22,280 lb (10,105 kg) |
| **Fuel Capacity** | *internal:* 2,440 lb (1,110 kg) *external:* 5,980 lb (2,710 kg) |
| **Max Payload** | 1,700 lb (770 kg) |
| **PROPULSION:** | |
| **Powerplant** | (AH-64A) two General Electric T700-701 turboshafts (AH-64D) two General Electric T700-701C turboshafts |
| **Thrust** | (AH-64A) 3,392 shp (2,530 kW) (AH-64D) 3,880 shp (2,894 kW) |
| **PERFORMANCE:** | |
| **Max Level Speed** | (AH-64A) 180 mph (295 km/h) (AH-64D) 160 mph (260 km/h) |
| **Maximum Climb Rate** | (AH-64A) 3,240 ft (990 m) / min (AH-64D) 3,090 ft (940 m) / min |
| **Maximum Vertical Climb Rate** | (AH-64A) 2,500 ft (760 m) / min (AH-64D) 1,555 ft (475 m) / min |
| **Service Ceiling** | 21,000 ft (6,400 m) |
| **Hover Ceiling** (in ground effect) | (AH-64A) 15,000 ft (4,570 m) (AH-64D) 17,210 ft (5,245 m) |
| **Hover Ceiling** (out of ground effect) | (AH-64A) 11,500 ft (3,505 m) (AH-64D) 9,810 ft (2,990 m) |
| **Range** | *typical:* 260 nm (480 km) [AH-64A] *typical:* 220 nm (410 km) [AH-64D] *ferry:* 1,025 nm (1,900 km) |
| **Endurance** | 3 hr 9 min [maximum] 2 hr 30 min [typical mission] |
| **g-Limits** | +3.5 / -0.5 |
| **ARMAMENT:** | |
| **Gun** | one M230A1 30 mm chain cannon (up to 1,200 rds) |
| **Stations** | 2 stub wings with 4 hardpoints and 2 wingtip rails |
| **Air-to-Air Missile** | AIM-9 Sidewinder, AIM-92 Stinger |
| **Air-to-Surface Missile** | AGM-114 Hellfire, AGM-122 Sidearm, TOW |
| **Bomb** | none |
| **Other** | 70 mm rocket pods, 127 mm rockets |
| **KNOWN VARIANTS:** | |
| YAH-64A | Prototype built by Hughes Helicopter to compete with Bell YAH-63 for US Army Advanced Attack Helicopter contract |
| AH-64A | First production model, all to be upgraded to AH-64D standard (but without for Longbow radar) by 2010 |
| GAH-64A | AH-64A models grounded for use as trainers; 17 modified |
| JAH-64A | AH-64A models used for special testing; 7 modified |
| AH-64B | Proposed interim upgrade to improve 254 AH-64As with GPS, new radios, new rotor blades, and improved navigation systems; cancelled in 1992 |
| AH-64C | Designation originally applied to AH-64A models upgraded to near AH-64D standard, including all upgrades except Longbow radar and new engines; approximately 540 to be so upgraded, but designation abandoned in 1993 |
| AH-64D Longbow | New build model equipped with mast-mounted Longbow radar, uprated engines, and improved avionics; 227 to be built; older AH-64A models upgraded to AH-64Ds not to be equipped with Longbow radar but capability exists to convert such aircraft to the full Longbow standard in 4-8 hours |
| WAH-64D | AH-64D model for British Army license built by Westland, essentially same as AH-64D but powered by Rolls Royce engines; 67 to be built |
| **KNOWN COMBAT RECORD:** | Panama - Operation Just Cause (US Army, 1989) Iraq - Operation Desert Storm (US Army, 1991) Kosovo - Operation Allied Force (US Army, 1999) Israeli-Palestinian conflict (Israel, 2000-present) Afghanistan - Operation Enduring Freedom (US Army, 2001-present; Netherlands, 2004-present) Iraq - Operation Iraqi Freedom (US Army, 2003-present) |
| **KNOWN OPERATORS:** | US Army Bahrain Egypt Greece Israel Kuwait Netherlands Saudi Arabia South Korea United Arab Emirates United Kingdom |
| **3-VIEW SCHEMATIC:** | |
| **SOURCES:**   * Bishop, Chris, ed. **The Encyclopedia of Modern Military Weapons: The Comprehensive Guide to Over 1,000 Weapon Systems from 1945 to the Present Day**. NY: Barnes & Noble, 1999, p. 321. * [Boeing AH-64 site](http://www.boeing.com/rotorcraft/military/ah64d/ah64d.htm) * Bonds, Ray, ed. [**The Modern US War Machine: An Encyclopedia of American Military Equipment and Strategy**](http://www.amazon.com/exec/obidos/ASIN/0517560976/aerospacewebo-20). NY: Military Press, 1987, p. 194. * Donald, David, ed. [**The Complete Encyclopedia of World Aircraft**](http://www.amazon.com/exec/obidos/ASIN/0760705925/aerospacewebo-20). NY: Barnes & Noble, 1997, p. 618. * [FAS AH-64 site](http://www.fas.org/man/dod-101/sys/ac/ah-64.htm) * Frase, Tuesday and Spohrer, Jennifer. **Jane's Combat Simulations: Longbow Gold Users Manual**. Austin: Origin Systems, 1997, p. 7.1-7.37. * Gunston, Bill, ed. [**The Encyclopedia of Modern Warplanes**](http://www.amazon.com/exec/obidos/ASIN/1586632078/aerospacewebo-20). NY: Barnes & Noble, 1995, p. 171. * Gunston, Bill and Spick, Mike. [**Modern Fighting Helicopters**](http://www.amazon.com/exec/obidos/ASIN/0861019458/aerospacewebo-20). London: Salamander Books, 1998, p. 132-133. * Munro, Bob and Chant, Christopher. [**Jane's Combat Aircraft**](http://www.amazon.com/exec/obidos/ASIN/0004708466/aerospacewebo-20). Glasgow: Harper Collins Publishers, 1995, p. 148-151. * Rendall, David. [**Jane's Aircraft Recognition Guide**](http://www.amazon.com/exec/obidos/ASIN/0007137214/aerospacewebo-20), 2nd ed. London: Harper Collins Publishers, 1999, p. 420. * [US Army AH-64 Fact Sheet](http://www.army.mil/fact_files_site/aircraft.html) | |

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