Raytheon

AGM-65 Maverick

Man-in-the-Loop Precision, Low Collateral Damage, Anti-tank, Anti-ship, Close Air Support Weapon

AGM-65 Maverick

- **The precision strike missile-of-choice for the U.S. Air Force, Navy, Marine Corps, and 36 international customers**
- **Carried on more than 25 strike and attack aircraft worldwide**
- **Lock-on-after-Launch™ (LOAL™) Maverick capable without modifications to aircraft or software**

Benefits

- Modular design provides various combinations of seekers and warheads
- Launch-and-leave capability with combat-proven high single-pass probability of kill
- Low collateral damage
- Transforming to meet tomorrow's network centric warfare needs
- Evolving to LOAL™ capability to exploit aerodynamic envelope, enabling precise attack from extended ranges with man-in-the-loop endgame control
- Proven capability against moving targets

Today's Maverick provides aircrews with launch-and-leave capability across a wide span of employment ranges and speeds. With its one-meter precision accuracy and lethal warhead, Maverick gives a high single-pass probability of success, with low collateral damage. Its modular design provides nine configurations, with choices of three different seeker/guidance options, two different warheads and fuzing options for naval flight deck operations.

The weapon is certified on more than 25 different aircraft types and is effective against 94 percent of U.S. Air Force target sets, including field fortifications, bunkers, hangerettes, tanks, armored personnel carriers, parked aircraft, radar or missile sites, port facilities and ships, including high-speed patrol boats. Maverick continues to evolve, providing cost-effective solutions to meet current and future capability needs for network centric warfare.

TV Maverick

The first Maverick produced was the television (TV) guided AGM-65A, delivered in 1972, followed in 1975 by the AGM-65B, with scene magnification optics. AGM-65A and B versions are now being upgraded to the newer H, J, JX and K configurations for the U.S. and international customers. The newer configurations incorporate modern charge-coupled-device (CCD) TV technology, circuitry and associated software to more than triple the lock-on and launch range of the original versions. The CCD seeker's sharper image gives the aircrew longer acquisition and launch ranges, allowing greater use of the aerodynamic envelope of the missile. The tracking software and cockpit display symbology are the same as those used successfully in infrared (IR) guided missiles.

Infrared Maverick

The U.S. Air Force's AGM-65D, G and G2 and the U.S. Navy's AGM-65F are equipped with IR seekers that work in both day and night situations.

The IR seeker presents a TV-like image on the cockpit display as it senses small differences in heat energy between target objects and the surrounding background. The tracking software for the IR missiles has evolved to accommodate a wide spectrum of ground and sea targets.

Laser Maverick

The U.S. Marine Corps' AGM-65E uses a semiactive laser seeker that tracks laser energy reflected from a target being illuminated by a laser designator device, from either the air or ground.

Warheads

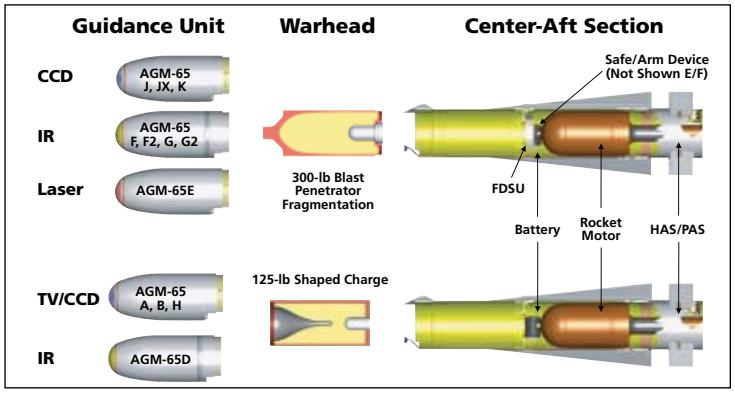
Two warheads are available for the Maverick. The A, B, D and H versions use a 125-pound warhead with a forward-firing, conical shaped charge for armor penetration. The E, F, F2, G, G2, J, JX and K versions employ a

Before

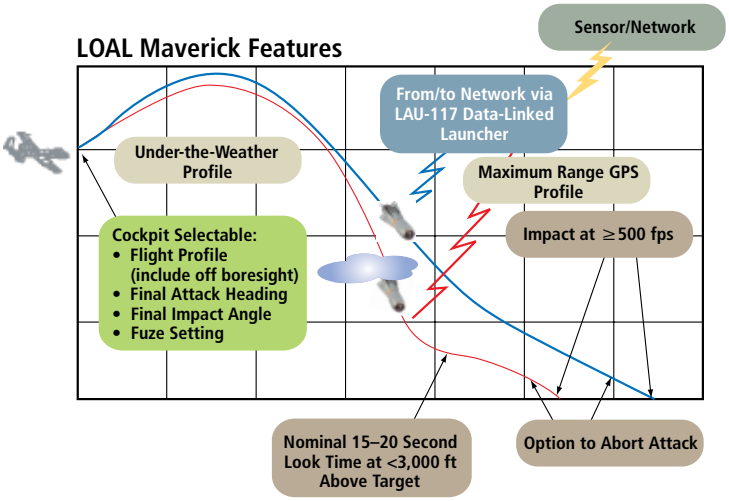
After

AGM-65 Maverick Specifications

Length:		98.0 in	249 cm
Wing Span:		28.5 in	72 cm
Diameter:		12.0 in	30.5 cm
Fuze:		Contact, Selectable Delays	
Weight:	125-lb Shaped Charge Warhead		
	D (IR)	485 lb	220 kg
	H (TV)	466 lb	211 kg
	300-lb Blast Fragmentation Penetrator Warhead		
	E (Laser)	645 lb	293 kg
	F, F2, G, G2 (IR)	670 lb	304 kg
	J, JX, K (TV)	654 lb	297 kg
	Single-Rail Launcher		
	LAU-117	135 lb	61 kg



Maverick Guidance Warhead Family Chart



300-pound blast fragmentation/penetrator warhead that was developed for maximum effectiveness against larger, reinforced targets. Selectable fuzing gives the aircrew the option of detonating the warhead on impact or after penetration.

LOAL Maverick

Evolving requirements to reduce the time needed to effectively engage moving targets places a premium on networked, plug-and-play connectivity and flexibility. Global Positioning System (GPS) aided guidance expands Maverick's launch envelope three to five times and allows employment in adverse weather with at least GPS accuracy. A two-way data link allows man-in-the-loop endgame control using video from the missile after launch and ensures precise endgame guidance. This precision gives the controlling pilot the capability to assess the endgame situation and to compensate for significant target location errors. The further incorporation of a network gateway data link radio enables targeting information to be provided real-time to the LOAL Maverick before and after launch, holding moving and relocatable targets at risk. Any aircraft that is Maverick capable today can be LOAL Maverick capable tomorrow. Only the missile and its launcher rail will require modification. The upgrade will not require modifications to aircraft, dependence on operational flight program (OFP) software, or loss of aircraft carriage stations to carry data link pods.

LOAL Maverick capabilities were demonstrated during a 2005 Utility Evaluation by the U.S. Air Force. The captive carry program demonstrated the following capabilities:

- Autonomously receives/displays network data in the cockpit which included targeting situational awareness imagery, crew briefing, friendly position information and battle hit indication (BHI) from the missile being controlled
- Autonomously sends BHI images from the LOAL Maverick to existing network nodes eliminating the need for additional assets to report missing results
- Autonomously receives targeting information directly into the weapon system using existing network sources such as Link-16, Transparent Multi-Platform Gateway (TMPG), Situation Awareness Data Link (SADL) and Low Altitude Navigation and Targeting Infrared for Night (LANTIRN) Sensor Point of Interest
- Any Maverick-integrated aircraft can benefit from onboard network situational awareness and targeting capability with no aircraft OFP changes required

LOAL Maverick is a net-enabled effector that can be made available in the near term.

Ensured Lethality to Complement Today's Lightweight Weapons

Raytheon Company
Missile Systems
Strike Weapons
P.O. Box 11337
Tucson, Arizona
85734-1337 USA
520.663.6540 phone
520.663.6402 fax

www.raytheon.com

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Customer Success Is Our Mission