

Tomahawk Cruise Missile Tomahawk Land Attack Missile



Tomahawk
Continuing to provide precision strike superiority while evolving to meet the U.S. warfighter's needs.

Benefits

- Surface and submarine launched
- Long-range precision strike
- Tactical flexibility

Description

Tomahawk is the U.S. Navy's surface- and submarine-launched, precision strike long-range stand-off weapon. At launch, a solid-propellant rocket motor accelerates the missile until the cruise engine takes over for the remaining portion of the flight. Radar detection is difficult because of the missile's small size and low altitude flight, which ensure high probability of survival en route to highly defended targets. Tomahawk is launched vertically from surface ships and both vertically and horizontally from submarines.

Tomahawk has played a crucial role in numerous theater operations, beginning with Operation Desert Storm and most recently during Operation Iraqi Freedom, with over 1900 Tomahawk missiles being used.

Operationally Proven

It has become the Navy's combat proven "weapon of choice" for critical long-range, precision strike missions against high-value, heavily defended and politically sensitive targets.

Block III

Block III Tomahawk utilizes highly integrated Global Positioning System and Inertial Navigation System (GPS/INS) guidance coupled with a digital scene matching system (DSMAC) and terrain contour matching (TERCOM) for highest end-game accuracy. GPS-only missions provide for very short mission planning response time. For target flexibility and lethality, Block III has two warhead variants: a 1000-pound class reactive case blast/frag unitary warhead and a submunition dispenser with 166 Combined Effect Bomblets (CEBs).

Block IV

Block IV Tomahawk (Tactical Tomahawk) is the next generation of the Tomahawk family of cruise missiles, incorporating innovative technologies to provide new operational capabilities while dramatically reducing acquisition, operations and support costs.

The new capabilities that Block IV brings to the tactical battlefield derive from the missile's

two-way satellite data link. The strike controller can flex the missile in flight up to 15 pre-programmed alternative targets or redirect it to a new target. This targeting flexibility includes the ability to loiter over the battlefield awaiting an assignment to a time critical target. The missile can also transmit Battle Damage Indication (BDI) imagery and missile health and status messages via the satellite data link. For the first time, firing platforms have the capability to plan and execute GPS-only missions using the Tactical Tomahawk Weapon Control System (TTWCS). Block IV also introduced a state-of-the-art high anti-jam GPS receiver for improved mission performance.

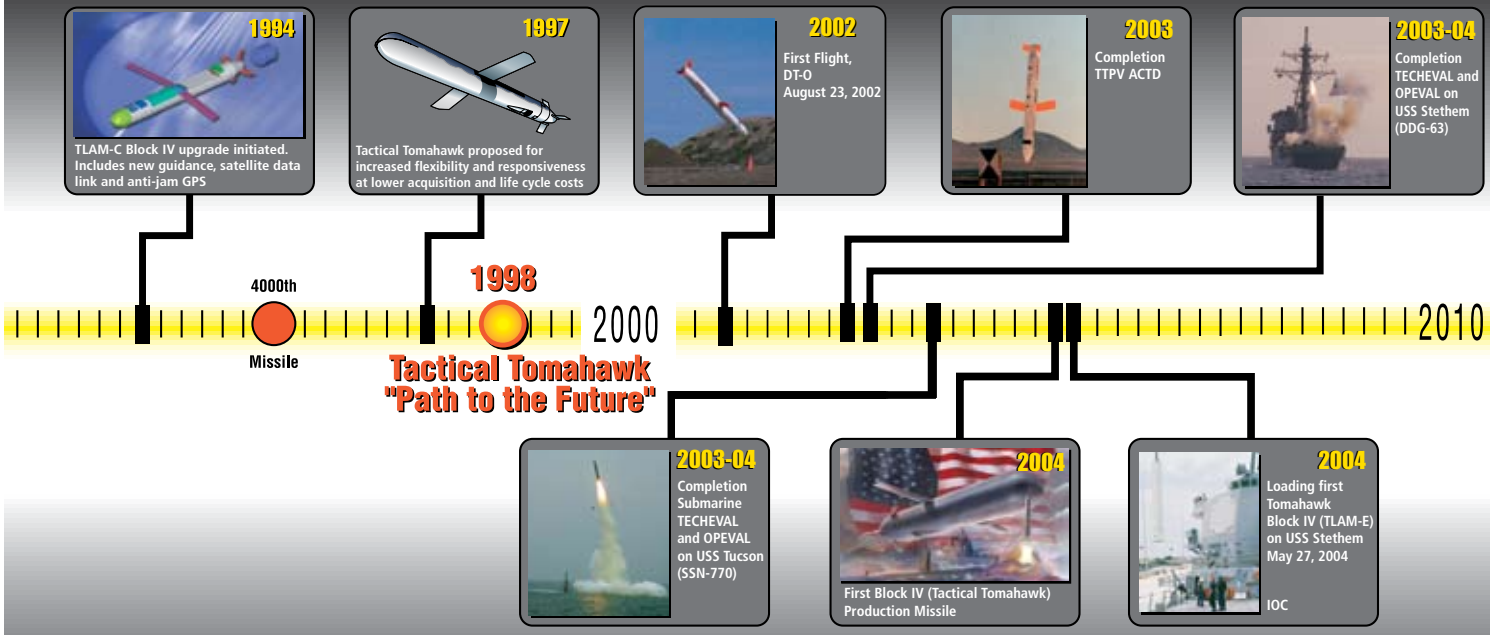
Additionally, its modular design allows for easy integration of future payload candidates as demonstrated during the Tactical Tomahawk Penetrator Variant Advanced Concept Technology Demonstration (ACTD).

TOMAHAWK





Evolution of Tomahawk to Block IV



Tomahawk Specifications

Length:	18 ft 3 in	20 ft 6 in (with booster)
Diameter:	20.4 in	
Weight:	2,900 lb	3,500 lb (with booster)
Wing Span:	8 ft 9 in	
Range:	1,000 statute miles	(1600 km)
Speed:	550 mph	
Guidance:	Terrain Contour Matching (TERCOM) Digital Scene Matching Area Correlation (DSMAC) GPS/INS	
Payloads:	Block III/IV 1,000-lb class reactive case blast/frag unitary warhead Block III Dispenser with CEBs	
Dates Deployed (IOC):	1986 Block II 1994 Block III 1999 United Kingdom 2004 Block IV	



USS Cape St. George (CG-71) Eastern Mediterranean, March 26, 2003



Tomahawk Block IV launch from USS Stethem (DDG-63)



Royal Navy Tomahawk Block II in flight over the Pacific

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