



Tomahawk Cruise Missile

Long-Range, Combat-Proven "Weapon of Choice"



Tomahawk continues to provide precision strike superiority while evolving to meet the U.S. warfighters' 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 standoff weapon. At launch, a solid-propellant rocket motor accelerates the missile until the cruise engine takes over for the remainder of the flight. Radar detection is difficult because of the missile's small size and low-altitude flight that ensures high probability of survival en route to highly defended targets. Tomahawk is launched vertically from surface ships and vertically and horizontally from submarines.

Tomahawk has played a crucial role in numerous operations worldwide, beginning with Operation Desert Storm and continuing today with more than 1,900 Tomahawk missiles used.

Operationally Proven

Tomahawk is the Navy's combat-proven "weapon of choice" for critical long-range, precision strike missions against high-value, heavily defended as well as politically sensitive

targets that characterize the global war on terror.

Block III

Block III is in the post-production phase.

Block IV

Tomahawk Block IV (Tactical Tomahawk) is a combat-proven system incorporating innovative technologies to provide new operational capabilities while dramatically reducing acquisition, operations and support costs. Tomahawk Block IV uses highly integrated GPS and inertial navigation system (INS) guidance coupled with digital scene matching area correlation (DSMAC) and terrain contour matching (TERCOM) for the highest endgame accuracy. GPS-only missions provide for very short mission planning response time.

The new capabilities that Block IV brings to the tactical battlefield are derived from the missile's two-way satellite data link. The strike controller can flex the missile in flight to engage up to 15 preprogrammed alternative targets or redirect it to a new target. This targeting

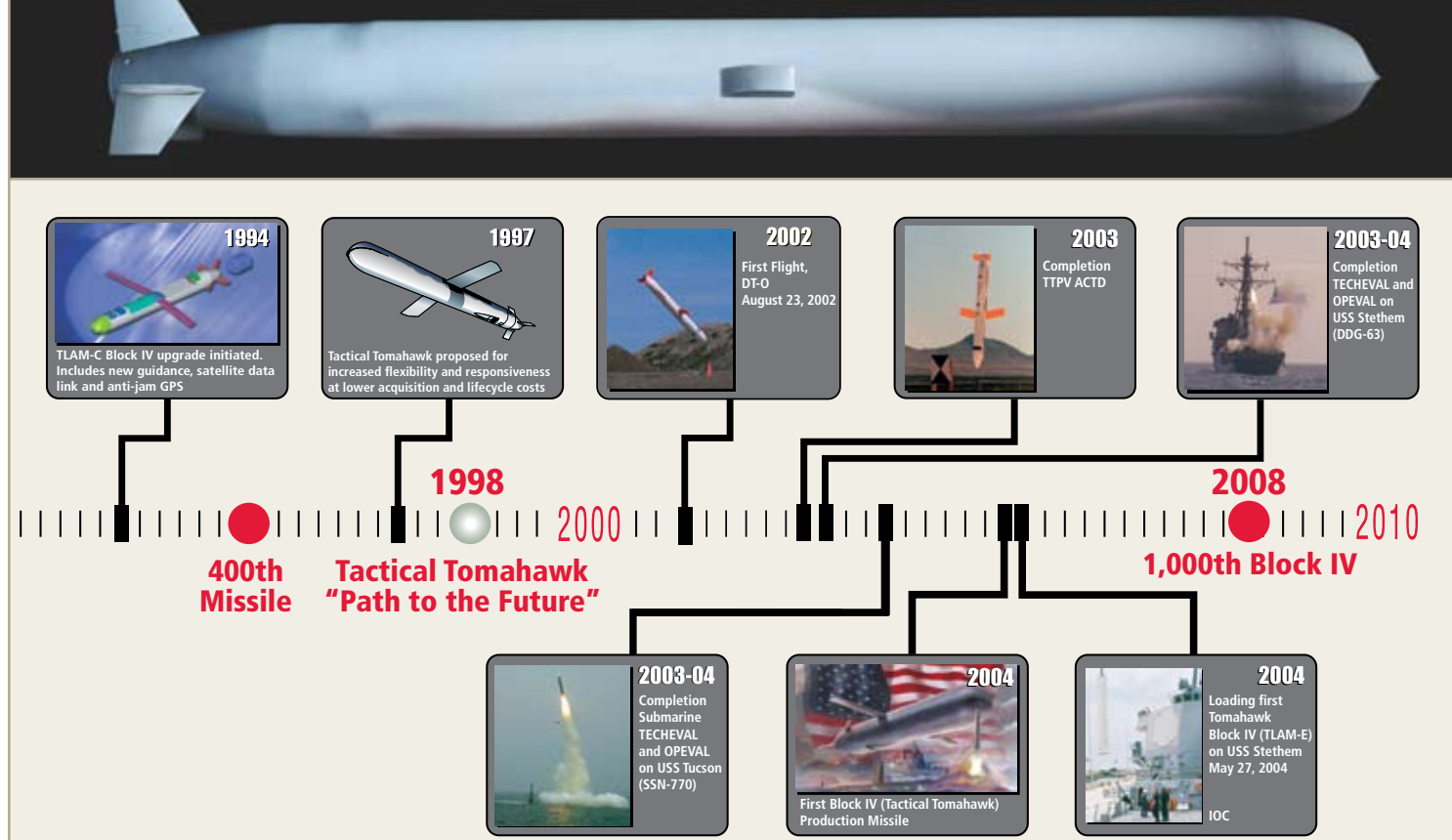
flexibility includes the ability to loiter over the battlefield awaiting an assignment to a time-critical target. The missile can also transmit Battle Damage Indication (BDI) imagery, and missile health and status messages via the satellite data link. Tomahawk Block IV enables the firing platform to 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. The missile's advanced design provides a unique platform for the integration of advanced technologies that increase the weapon's capabilities against time-critical, land-based targets and enhance execution of maritime interdiction operations.

Tomahawk Block IV's modular design enables easy integration of potential future payloads, including the Joint Multi-Effects Warhead System (JMEWS).

More than 1,000 Block IV Tomahawks have been produced.



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)
Wingspan:	8 ft 9 in	
Range:	1,000 statute miles	(1600 km)
Speed:	550 mph	
Guidance:	GPS/INS TERCOM DSMAC	
Payload:	Block III/IV 1,000-lb class reactive case blast/frag unitary warhead	

Dates Deployed (IOC):	1984 Block II 1994 Block III 1999 United Kingdom Block III 2004 Block IV 2008 United Kingdom Block IV
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USS Cape St. George (CG-71) Eastern Mediterranean



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



Royal Navy Tomahawk Block IV torpedo-tube launched missile fired from the Gulf of Mexico

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