



**VERTICAL LAUNCH  
ANTISUBMARINE MISSILE (VLA)**  
PROTECTING THE FLEET AGAINST SUBMARINE ATTACK

**LOCKHEED MARTIN**   
*We never forget who we're working for®*

# SUBMARINE DETERRENT

The Vertical Launch Antisubmarine (VLA) missile is the only operational anti-submarine warfare (ASW) weapon that effectively satisfies the surface ship ASW mission. The VLA's stand-off range and lightweight torpedo payload make it equally effective in littoral and open-ocean operations.

The VLA missile, a rocket-propelled, three-stage weapon, deploys on ships equipped with the Mk-41 Vertical Launching System (VLS) and tasked with an ASW mission. Major VLA features:

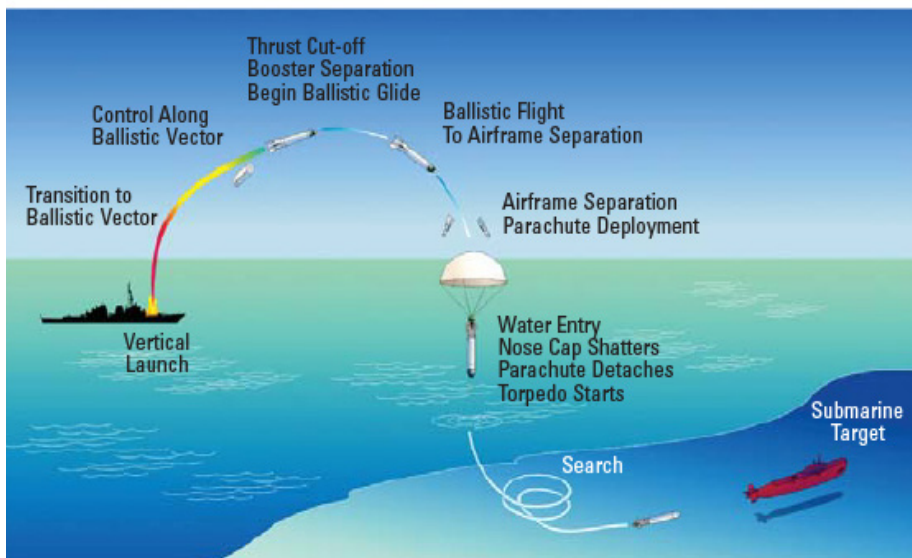
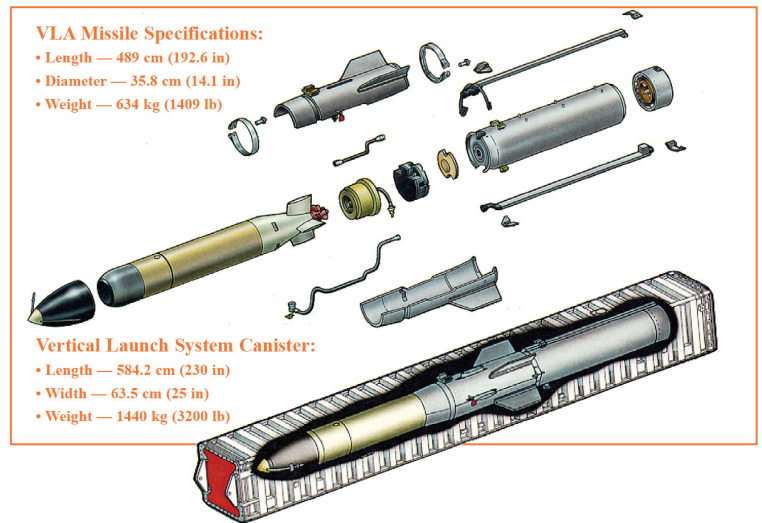
- Standoff capability
- All-weather operations (up to Sea State 6)
- Urgent attack
- 360-degree Engagement

VLA is in production and in operational use by the U.S. Navy and the Japanese Maritime Self-Defense Force. The VLA missile is compatible with the Mk-46 Mod 5 torpedo and the Mk-54 Hybrid torpedo. Other lightweight torpedoes can be readily accommodated.

VLA is available for direct commercial sale and foreign military sale to 38 countries. Lockheed Martin Mission Systems and Training in Baltimore has delivered more than 1000 VLAs since 1993. VLA-capable U.S. ships include the Arleigh Burke DDG-51 Aegis guided-missile destroyers, Spruance DD-963 destroyers and Ticonderoga CG-47 Aegis guided-missile cruisers. The Mk-41 VLS also launches the VLA missile. The modular VLS consists of an armored, high-capacity,

environmentally controlled and sheltered magazine, employing missiles in vertically oriented canisters within the ship. Each VLA missile is in a sealed canister, which serves as both a launch tube and a shipping container. VLS is capable of handling, storing, preparing for launch and launching missiles upon command from the appropriate weapon control system. Designed to launch and deploy torpedoes, the qualified VLA booster system can dispense smart munitions for:

- Antisurface warfare
- Mobile land target suppression



Upon target acquisition VLA launches vertically before pitching over in any direction and flies in a guided ballistic path to the target area. During flight the airframe separates from the missile, the decelerator opens to slow descent and the nose cap shatters upon water entry. The torpedo is then free to acquire the target.

Effectively extending a Navy's capabilities and tactical reach, VLA can also integrate into above-deck launchers. Lockheed Martin Mission Systems & Training in Baltimore is a business unit. Lockheed Martin is a highly diversified global enterprise principally engaged in the research, design, development, manufacture and integration of advanced weapon and launching systems.

Lockheed Martin Corporation  
Mission Systems and Training  
300 M Street, SE  
Washington, D.C. 20003, USA  
[www.lockheedmartin.com/VLA](http://www.lockheedmartin.com/VLA)

© 2015 Lockheed Martin Corporation  
PIRA #BAL201510001

Statement A: Approved for Release. Distribution is unlimited.