



MK 41 Vertical Launching System (VLS) Proudly Serving Navies the World Over



# **MK 41 Vertical Launching System**

Combat proven, with more than 3,500 successful missile firings, the MK 41 Vertical Launching System (VLS) eliminates all the problems of conventional and single purpose launchers on surface ships. Installed below deck, MK 41 VLS adds significant enhanced performance in operational availability, survivability and versatility with minimal staffing and training requirements. Deployment of MK 41 VLS by 12 navies, in more than 20 different ship classes in more than 180 ships demonstrates that it clearly is the worldwide launcher of choice.

## **Missiles For All Missions**

MK 41 VLS is the only launching system that can simultaneously accommodate the weapon control system and the missiles of every warfighting mission area—anti-aircraft, anti-surface, antisubmarine and land attack. The system is designed to accept any missile into any cell—a capability that provides unparalleled flexibility.

# **Modular Configuration**

The basic foundation is an eight-cell MK 41 VLS module that can be assembled in desired numbers to meet specific mission



and hull requirements. MK 41 VLS is currently deployed in 13 different configurations, ranging from a single module with eight-cells to 16 modules with 122cells. The basic module is available in three sizes: Strike, Tactical and Self-Defense. The Strike module is approximately 25 feet (7.6 meters) long and capable of launching the largest missiles such as those that support sea-based midcourse ballistic missile defense and long-range strike. The Tactical module is approximately 22 feet (6.7 meters) long and capable of accommodating the same missile types as the Strike, except for the Tomahawk land attack cruise missile and those missiles designed for a SMD role. The Tactical module is currently being integrated and installed in ships of the Turkish and Australian navies. The Self-Defense module, at just more than 17 feet (5.2 meters), is ideal for meeting the mission requirements of offshore patrol vessels, corvettes, small frigates and amphibious ships.

### **Arsenal Expansion**

The launch control system features an open, distributed architecture that supports the easy integration of future technologies. Open architecture both in the weapon control interface and the missile mechanical and electrical interface allows the system to support any



missile in any cell, a capability unique to MK 41 VLS. Integration of new tactical weapons has been consistently demonstrated. The latest missile integrations into the MK 41 VLS include the Evolved Sea Sparrow Missile (ESSM), Tactical Tomahawk, Standard Missile 3, Standard Missile 6 and Vertical Launch ASROC-Lightweight Hybrid Torpedo.

### **Continuous Spiral Development**

Since the mid-1980's, the MK 41 VLS has maintained a common mechanical structure, and the system electronics have been continuously upgraded. The upgrades incorporate new missile integration capabilities, mitigate obsolescence and leverage the benefits COTS and Open System Architecture to provide an affordable product. The continuous evolutionary design process provides customers with the latest state-of-the-art capabilities and enables unparalleled integration flexibility for a multi-mission vertical launching system.

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