



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

**Lockheed Martin's Surface Combat Ship**  
*Proven, Low-Risk Capability*



# Ability to Meet Current and Future Requirements

The multi-mission Surface Combat Ship (SCS) is the next generation surface combatant for U.S. Allies. This high-speed, highly maneuverable combatant is capable of executing missions in both open sea and littoral environments.

- Provides simultaneous anti-air, anti-submarine, anti-surface and electronic warfare as well as special operations support
- Allows interoperability with U.S. and Allied naval forces to participate in joint and coalition operations
- Proven, robust configuration combat system operating features include:
  - Open architecture Aegis combat system / SPY-1F (V) radar
  - MK-41 Vertical Launching System

## Inherent Platform Capabilities

The SCS offers superb support for a variety of maritime missions focused on increasing global security. The ship's core capabilities include:

- Versatile stern ramp design makes small craft / boat deployment safer and faster
- Extra large flight deck
- Shallow draft and responsive maneuverability
- High-speed propulsion system

## Mission-Capable, Mission-Modular Capable

The U.S. Navy's Lockheed Martin LCS Freedom-variant satisfies critical warfighting needs through insertion of mission packages for Anti-Submarine Warfare, Mine Warfare, and Anti-Surface Warfare. Through its open-architecture design and proven LCS baseline hull, SCS variants can also be configured and integrated with sensors and weapons matched to meet each navy's threat profiles. The enhanced warfighting capabilities of SCS, based on the latest Aegis technologies, provide the ship commander with the ability to effectively engage and defeat threats with multi-mission alternatives. Capabilities for customizing various missions are:

### Anti-Air Warfare

- Evolved Sea Sparrow Missile
- Family of long range, Standard missiles
- Medium-caliber, rapid fire main gun
- Close-in-Weapon-System

### Anti-Surface Warfare

- Harpoon missiles
- Medium-caliber, rapid fire gun
- Close-in-Weapon-System 50-caliber machine guns
- MH-60 helicopter with Hellfire missiles and Vertical Takeoff and Landing Unmanned Aerial Vehicles (VTUAVs)

### Platform Scalability

The SCS platform's hull size can be scaled to more than 150 meters in length, and spaces can be reconfigured. The U.S. Navy's successful Lockheed Martin LCS design serves as the baseline to which modifications to hull size, zone placement, weapons systems and other characteristics can be made depending on each navy's needs.

### Anti-Submarine Warfare

- Torpedoes
- MH-60 helicopters
- Towed, hull-mounted and dipping sonars

### Mine Warfare

- Remote Multi-Mission Vehicle (RMMV)

## Surface Combat Ship

*Providing Potent Firepower in a Compact Ship*

### Multi-Mission Capability

- Area Air Defense
- Anti-Submarine Warfare
- Mine Warfare
- Surface Warfare
- Special Operations

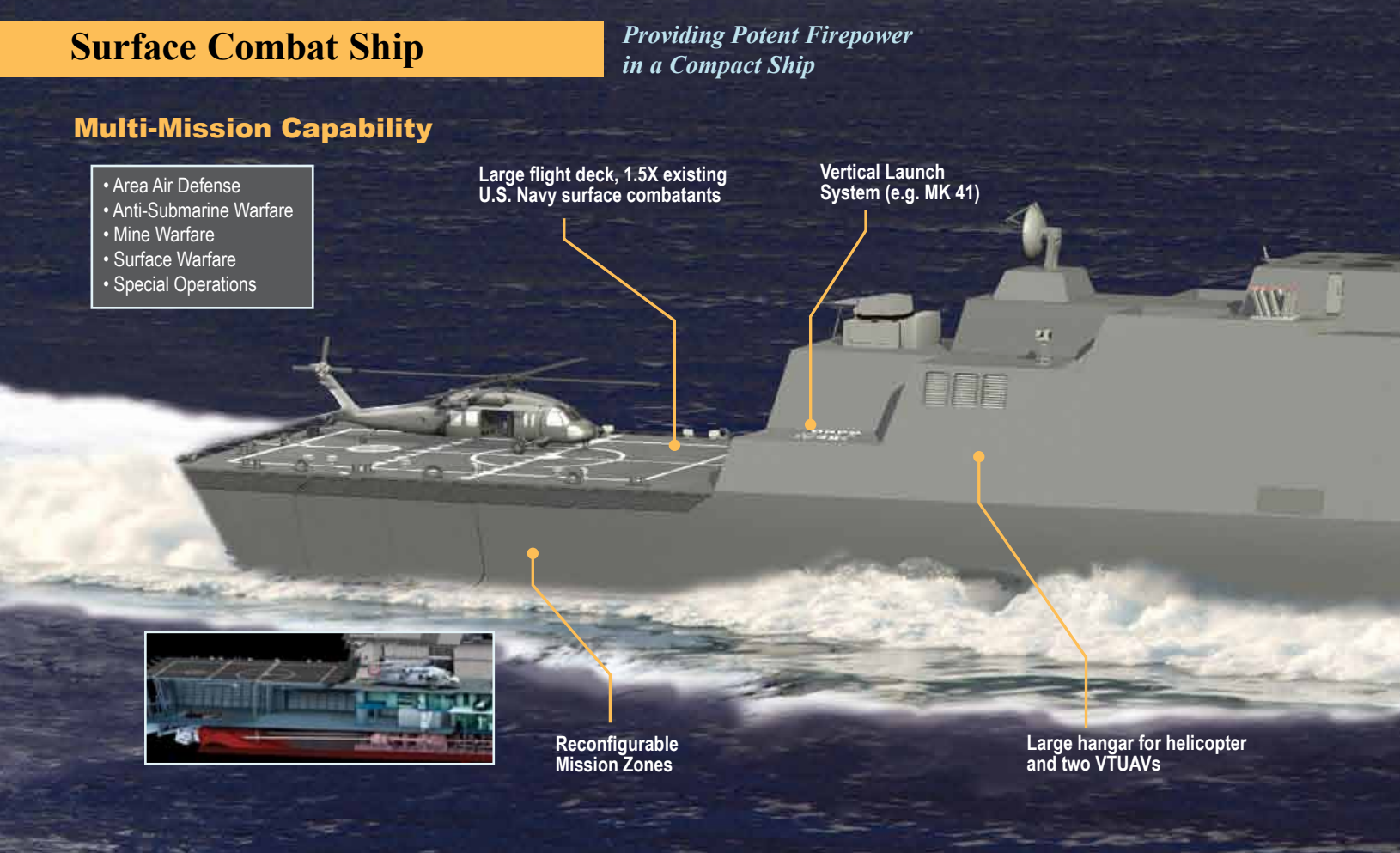
Large flight deck, 1.5X existing U.S. Navy surface combatants

Vertical Launch System (e.g. MK 41)



Reconfigurable Mission Zones

Large hangar for helicopter and two VTUAVs



## Proven Foundational Design Means Lower Cost, Risk

Customization of the SCS is cost effective, as the ship design has already met U.S. Department of Navy standards.

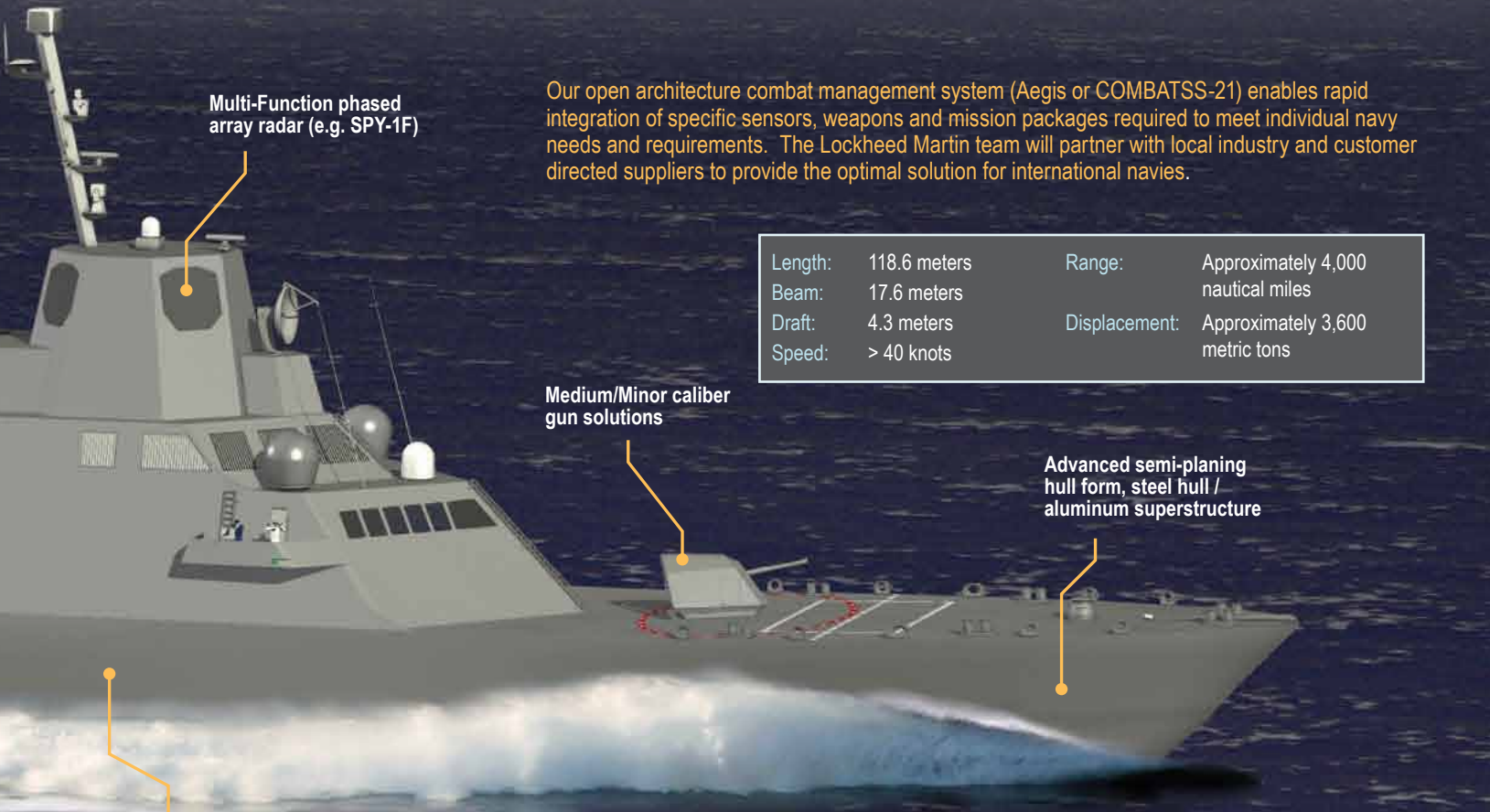
### Keys to Lower Cost

- Producibile design
- Affordable to build and maintain
- Open architecture combat system
- Automation for efficiency
- Reduced manning, as desired



## On-Board Innovations

- Automation of Control Systems
  - Ship (integrated bridge, navigation controls and ride control)
  - Navigation (sensors, sensor processing, data distribution)
  - Machinery (propulsion, electric, steering, auxiliaries)
  - Casualty (fire / smoke / flood alarm and boundaries; casualty plot and situational awareness)
- Minimal manning, simplifying training and reducing total ownership cost
- Oculus system providing real time and full history of ship operations for scenario reconstruct and monitoring capability
- Close-circuit television
- Total Ship Computing Environment
  - Controlled by a single operating station
  - Provides integrated interior communications capability
  - Serves as network backbone for LCS collaboration (planning and data exchange)
- Open architecture
  - Enables “plug and play” for different combat systems
  - Allows for quick integration of manufacturers’ systems



Multi-Function phased array radar (e.g. SPY-1F)

Medium/Minor caliber gun solutions

Advanced semi-planing hull form, steel hull / aluminum superstructure

Our open architecture combat management system (Aegis or COMBATSS-21) enables rapid integration of specific sensors, weapons and mission packages required to meet individual navy needs and requirements. The Lockheed Martin team will partner with local industry and customer directed suppliers to provide the optimal solution for international navies.

Length:	118.6 meters	Range:	Approximately 4,000 nautical miles
Beam:	17.6 meters	Displacement:	Approximately 3,600 metric tons
Draft:	4.3 meters		
Speed:	> 40 knots		

Aegis or COMBATSS-21 Open Architecture Combat Management System

Example of possible international variant

## Interoperability with U.S. and Allied Naval Forces



Features	Benefits
<ul style="list-style-type: none"> <li>• Steel semi-planing monohull with aluminum superstructure</li> <li>• Highly maneuverable</li> <li>• Superior survivability</li> <li>• Shallow draft</li> </ul>	<ul style="list-style-type: none"> <li>• High-Speed Propulsion System</li> <li>• Excellent stability at high speeds in high sea states</li> <li>• Maximizes warfighting capability under hostile conditions</li> <li>• Expands number of accessible ports</li> <li>• Reduces safe haven for enemy small craft</li> <li>• Enhances special operations close to shore</li> </ul>
<ul style="list-style-type: none"> <li>• Uses state-of-the-art combat system designs</li> <li>• Aegis-based combat system operational in U.S. and Allied Navies</li> </ul>	<ul style="list-style-type: none"> <li>• Reduces life cycle costs and increases interoperability with the U.S. Navy</li> <li>• Combat system performance demonstrated by over 3,800 missile firings in both test and combat environments</li> </ul>
<ul style="list-style-type: none"> <li>• Multi-mission warfare capability</li> </ul>	<ul style="list-style-type: none"> <li>• Provides total hemispheric long range air defense, anti-surface, and anti-submarine warfare capabilities</li> </ul>
<ul style="list-style-type: none"> <li>• Significant local industry participation</li> </ul>	<ul style="list-style-type: none"> <li>• Broadens local industry capabilities in the maintenance and repair of the ship</li> <li>• Provides path to full self sufficiency for local industry</li> </ul>
<ul style="list-style-type: none"> <li>• Fully integrated Command &amp; Control system using the latest U.S. Navy open architecture model</li> <li>• Articulating ramp</li> </ul>	<ul style="list-style-type: none"> <li>• Maximizes combat system operational performance</li> <li>• Provides opportunity to benefit from future U.S. Navy system upgrades</li> <li>• Safer, faster underway launch and recovery of Rigid Hull Inflatable Boats</li> </ul>

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