SeaSpider™
Naval Weapons

SeaSpider™
Anti Torpedo Torpedo

SeaSpider is the world’s first dedicated Anti-Torpedo-Torpedo (ATT), designed without compromise to be an effective and affordable solution to the torpedo threat. It offers an unrivaled defensive capability against all currently deployed torpedo types. The SeaSpider ATT actively seeks out attacking torpedoes with the sole objective of their immediate destruction. Unlike decoy/jammer torpedo defense effectors, the operation of the ATT is totally independent from the attacking torpedo’s mode of homing, guidance or type of propulsion system. SeaSpider’s defensive capability specifically covers the intercept of wake homing torpedoes and torpedo salvoes. The unique solid propellant underwater rocket propulsion offers both the most effective and affordable propulsion system for ATT’s.

The SeaSpider system is designed to be easily integrated as a subsystem into any torpedo defense system and/or defended platform. As a result of its high level of effectiveness there is no requirement for any other type of effector. SeaSpider’s rapid reaction time and excellent close-in defensive capability as well as its high frequency sonar provide effective defense within the challenging littoral environment. SeaSpider provides a surface ship torpedo defense system with a robust defensive capability that mitigates the impact of environmental effects degrading the performance of the torpedo detection capability.

- The world’s first dedicated Anti-Torpedo-Torpedo
- Extremely rapid system reaction time offers excellent close-in defense
- The only torpedo defense system effective against all types of torpedo threats
- High intercept probability, independent of the attacking torpedo’s sensors and propulsion
- Excellent shallow water performance for operation in congested littorals
- Low cost rocket propulsion uniquely suited for the Anti-Torpedo-Torpedo mission
- HF Homing Sonar enables continuous operation of DCL system
- Maintenance Free All Up Round for easy handling and storage

... a sound decision
Multimode Homing Head
SeaSpider’s fully digitized homing sonar is capable of operating in passive, active and intercept mode simultaneously, ensuring optimal homing performance regardless of the threat torpedo properties. The active sonar frequency has been specifically chosen for optimal detection capability against wake-homing torpedoes and to ensure no interference from shipboard sensors.

Compact and Nimble Design
SeaSpider is specifically designed as an Anti-Torpedo-Torpedo without multimission trade-offs. Its small nonstandard dimensions offer maneuverability which is greatly superior to any other existing conventional torpedo design. This is achieved without diverting from the low cost conventional rudder and fins arrangement.

Fully Digitized Control and Guidance section
SeaSpider features an advanced solid state microprocessor guidance system incorporating a fibre-optic gyro and inertial measurement unit. Its built in C6G logic incorporates special modes for wake homer and salvo intercept.

Low Cost Solid Propellant Rocket Propulsion
SeaSpider’s propulsion system is uniquely suited to the Anti-Torpedo-Torpedo role with high performance and excellent shallow water capabilities, as well as low self-noise in the homing sonars frequency range.

Maintenance free Canistered Round
SeaSpider is supplied as an All Up Round for easy handling and storage. Maintained in a controlled atmosphere the SeaSpider Anti-Torpedo-Torpedo will not require any maintenance beyond the scheduled eight-year depot-level maintenance and examination intervals. The SeaSpider canister also doubles as the launching tube for the ATT when inserted in the launcher.

Technical data
- Length: 1940 mm (~ 6.4 feet)
- Diameter: 210 mm (~ 8.3 inch)
- Weight: 107 kg (~ 236 lb)

Complete Effector Subsystem
For optimal use the SeaSpider Control Unit uses the data provided by the TDCL subsystem of a torpedo defense system to generate the firing solution and presets for the SeaSpider ATT mission. This firing solution is displayed via a dedicated operator panel or, if full integration is required, via the Multifunction Consoles of the ships CMS and forms the basis for operator decisions if the system is placed in semi-automatic mode. The selectable fully automatic mode enables the SeaSpider system to realise the full potential of its rapid reaction time. Nevertheless SeaSpider can also provide defensive capability as a separate non-integrated Bolt-On or Stand-Alone system using any available sensors.

Launcher Alternatives
The recommended launcher for SeaSpider is the dedicated fixed launcher, however SeaSpider can also be launched from a sub-calibre torpedo tube insert. The dedicated fixed launcher offers low space and infrastructure requirement, instant SeaSpider readidefense systems.

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