

UNDERSEA WARFARE TRACKING/TRAINING RANGE (UTR)

Beginning in the 1960s, L3Harris has successfully designed, manufactured and installed a majority of the current operational in-water fixed and portable undersea tracking/training range systems for the U.S. and allied navies.

Working in partnership with the U.S. and international navies, L3Harris has constructed the largest fixed UTRs installed over the last five decades. We can accommodate and install hundreds of specialized nodes (fixed and portable) engineered to meet the specific needs of our customers. Our products have demonstrated successful system provision with a more than 20-year operational life in a variety of environments and ocean depths. The team at L3Harris has worldwide program, design, marine installation and operations experience.



FIXED RANGES

Fixed ranges are permanently installed/ fixed in a planned location. The range sensors cover a set geographic area of the ocean and are connected to a shore operational center by subsea cables.

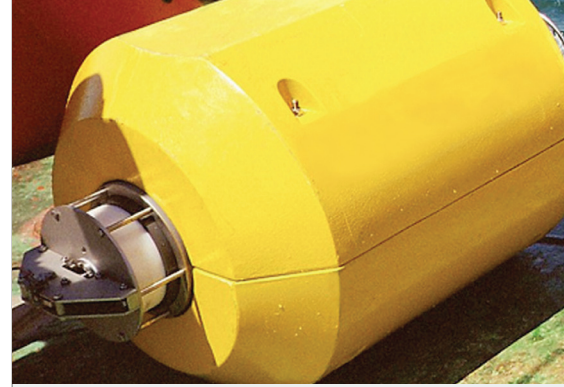
- > Demonstrated more than 20-year life
- > Bi-directional nodes allows voice and telemetry communications
- > 3D location of multiple assets in real-time
- > Full ocean depth
- > Uses cable from all major suppliers
- > Expandable and flexible
- > Cable ship or vessel of opportunity installation



PORTABLE RANGES

Portable ranges typically consist of battery operated, bottom-moored beacons. These beacons are temporarily installed in a location for a finite operation life of a few weeks to a few months, limited mainly by battery life.

- > Easily transported, readily deployed and recovered (re-usable)
- > Scalable
- > In-situ testing and training
- > Intelligent transponder
- > MK-84 based ping processing
- > Employs digital spread spectrum signaling
- > Tracks multiple targets
- > Real-time operator feedback
- > Operates for extended durations

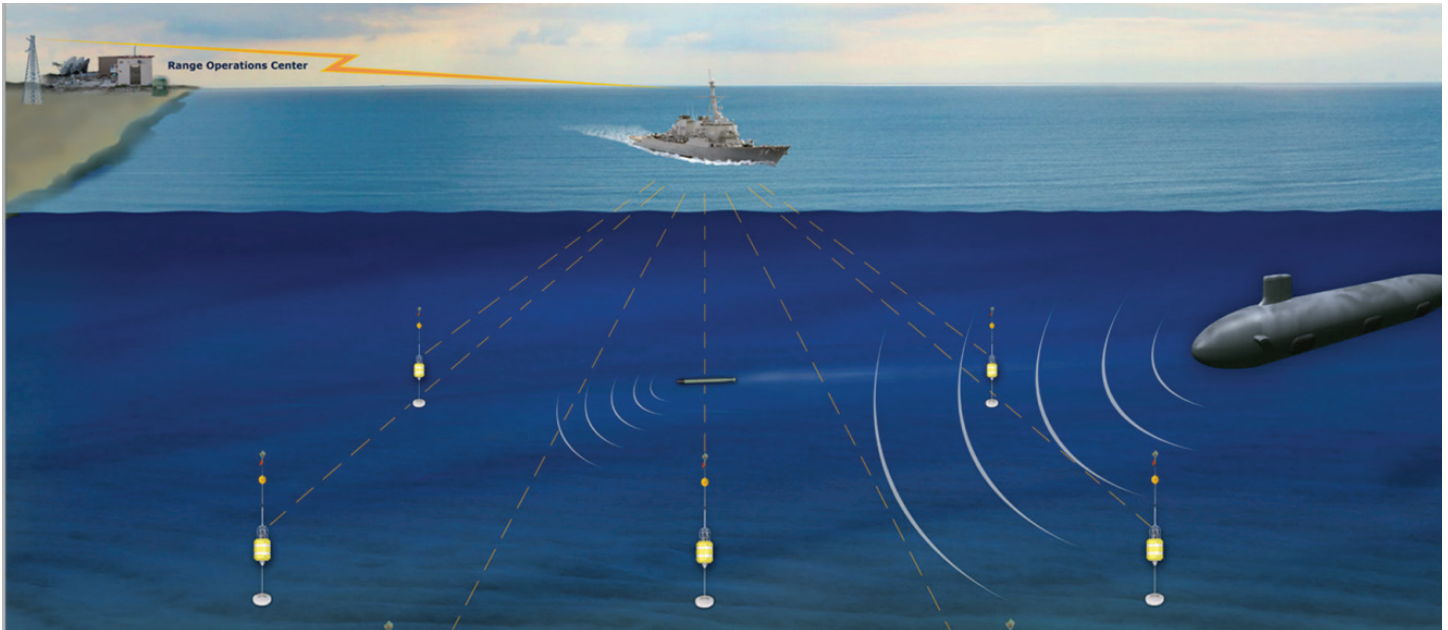
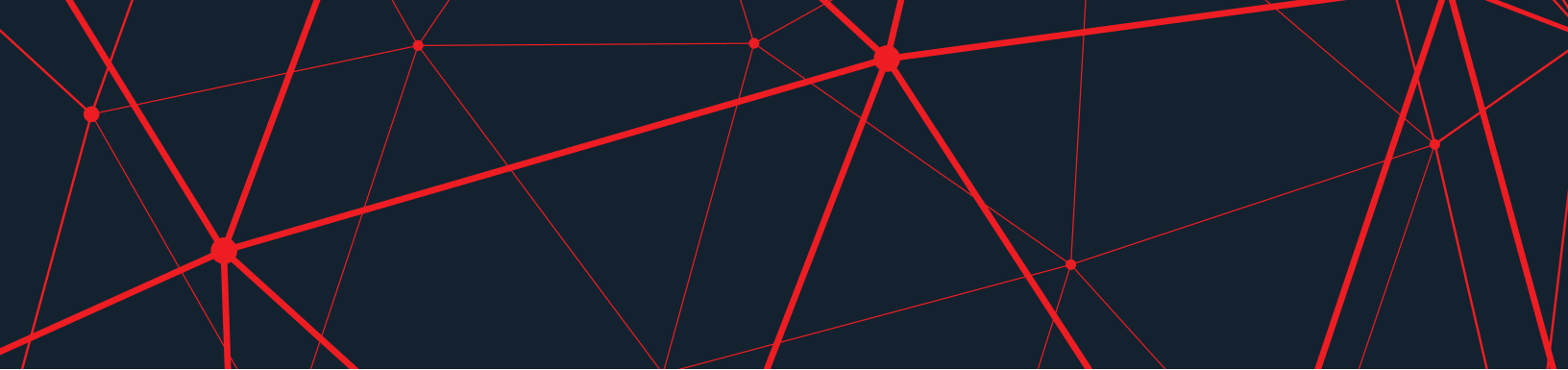


SUPPORTING UNDERSEA DEFENSE

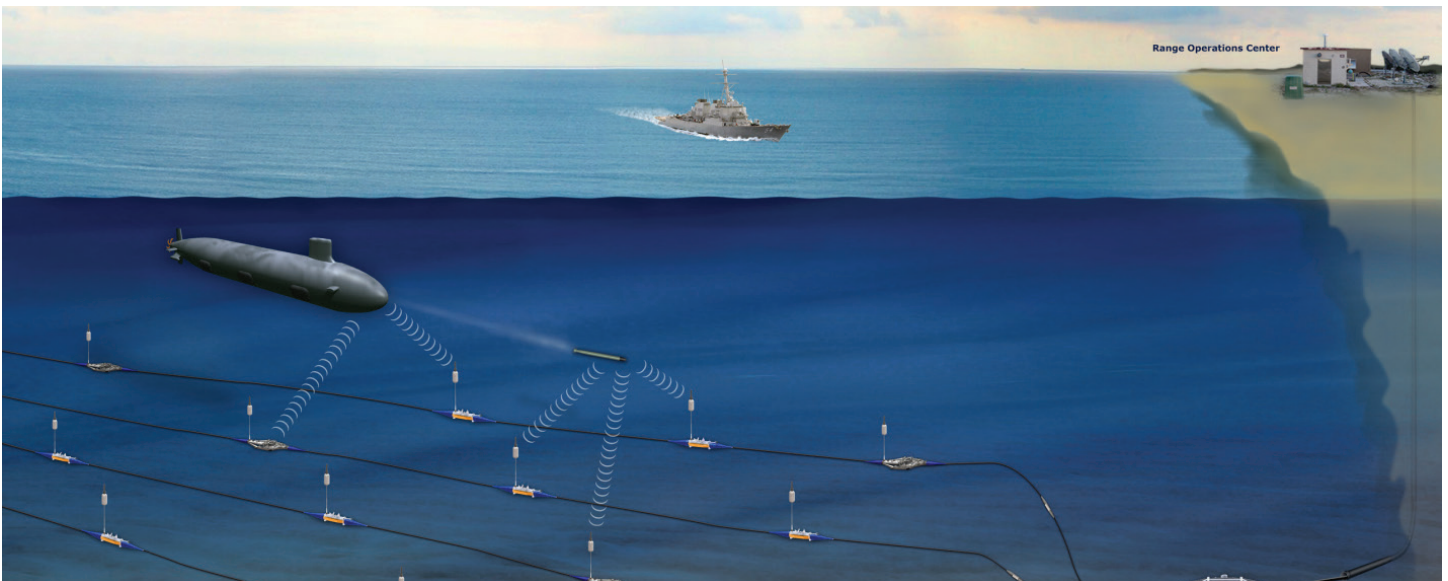
- > Fleet tactical training and development
- > ASW training and tactics development
- > Weapon and combat system research, development, test, evaluation and system performance
- > Facilitates individual joint or allied force exercises
- > Maintains readiness during forward deployments

UNDERSEA WARFARE TEST AND TRAINING RANGES

- > Undersea test and training range provider for 5-eyes navies and space telemetry systems
- > Real-time 3D tracking and playback of red-blue mission exercise, acoustic measurements of underwater weapon system and ballistic missile defense and launch vehicle missile tracking
- > Bi-directional and modular communications across wide-band acoustic channels
- > Acoustic test ranges for static and dynamic characterization
- > Nuclear explosion detection sensors in support of United Nations nuclear test ban treaty



PORTABLE RANGE



FIXED RANGE

L3Harrisellst_FixedPortableASWUTR

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These item(s)/data have been reviewed in accordance with the International Traffic in Arms Regulations (ITAR), 22 CFR part 120.34, and the Export Administration Regulations (EAR), 15 CFR 734(3)(b)(3), and may be released without export restrictions.

L3Harris Technologies is a Trusted Disruptor for the global aerospace and defense industry. With customers' mission-critical needs always in mind, our more than 50,000 employees deliver end-to-end technology solutions connecting the space, air, land, sea and cyber domains. [L3Harris.com](https://www.l3harris.com)



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