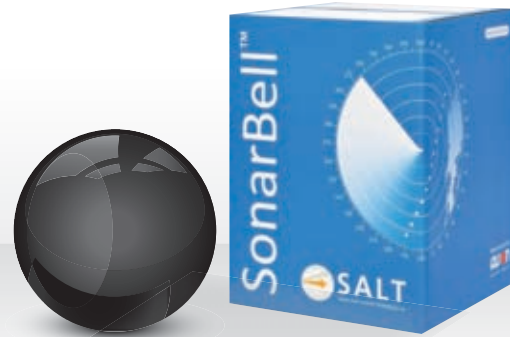


SonarBell™ SEEARS – SonarBell™ Entry, Exit And Recovery System

Defence Products

SALT has designed a number of systems for military and security use utilising the unique properties of the passive SonarBell™ technology of which the SEEARS system is one.



➔ Supporting Military Divers and Special Operations



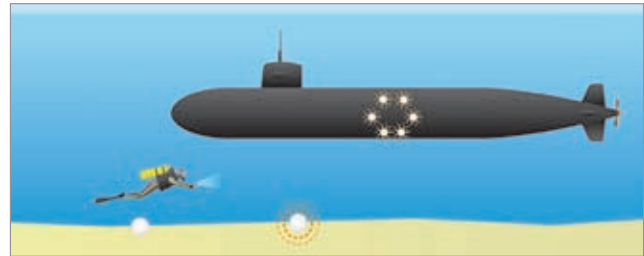
Diving is by its very nature a potentially dangerous and demanding activity. Undertaking military operations as a diver be they mine-clearance or special operations represents a quantum leap in terms of difficulty and danger. The performance demanded from the individual by such operations is high and can result in substantial fatigue and stress.

SonarBell™ used in conjunction with a suitable hand-held sonar device can provide combat swimmers, mine clearance divers and other Military personnel with additional capability to ease the operational load.

Supplied with a suitable sonar torch, fixings and weights, SonarBells™ can be deployed either on their own by a diver during operations or from the surface attached to equipment for subsequent subsurface pick-up and operational use.

Deployed by the swimmer during the deployment phase of an operation, SonarBells™ could be utilised as “waypoints” between compass bearings. A 50mm SonarBell™ /sonar torch combination should in most cases provide accurate waypoints when laid every 70m meaning that a set of 10, SonarBells™ would thus be capable of providing reference points in the last 700m of the run to and from a target.

➔ Maximising the benefit of the SonarBell™



SonarBells™ work with all types of sonar from the highly sophisticated hull mounted and side-scan devices at the top of the scale down to fish-finders and depth sounders at the bottom.

To get maximum performance from different combinations of sonar detection systems owned by the client, SonarBells™ are tuned to induce maximum resonance at the appropriate frequencies. This resonant peak can be broad or narrow depending on client requirements.

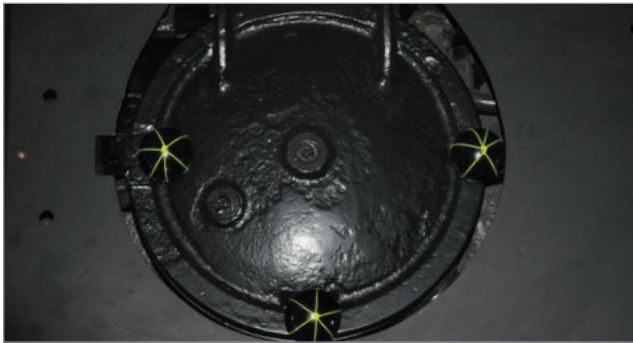
SALT is familiar with this design process and such requirements can be met through our Bespoke Design Services.



➡ Wide Ranging Applicability

SonarBells™ are very simple devices but as a consequence they have potentially a very wide ranging applicability. For example:

- ➡ Marking a diver for operational monitoring during a dive
- ➡ Providing a marked hatch or doorway for:
 - Diver recovery by submarine
 - Recovery of personnel in the event of accident
- ➡ Marking tools and equipment for use during a dive

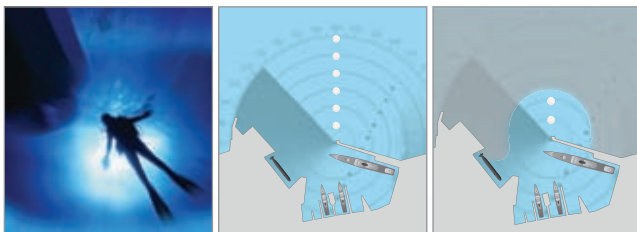


Other Defence products available from SALT include:

SonarBell™ Performance and Training System - SPATS

Knowing the effective range of a swimmer detection sonar is vital if interception teams are to be brought to the appropriate state of readiness for the prevailing conditions - allowing you to reduce unnecessary fatigue.

Having SonarBells™ in the water as range markers can provide the difference between knowing you have enough warning to arrange swimmer interception and hoping you have.



SonarBell™ Underwater Mine Marking System - SUMMS

SonarBell™ is a totally passive device with a significant and dependable acoustic signature and low non-acoustic signature. As such it provides an ideal device for marking mines or other objects for subsequent destruction.



SonarBell™ Equipment Tracking System - SETS

Delivering passive tracking of underwater equipment for in-service position monitoring and asset recovery in the event of power failure or loss of communication.

SonarBells™ supplied can be tailored for different size AUV/ROVs and for the frequency of the surveillance sonar.



➡ SALT Bespoke Design Services

As the pioneers of SonarBell™, SALT has unrivalled experience in designing SonarBells™ that meet client requirements. We would be delighted to talk over any specific requirements you might have.

Subsea Asset Location Technologies (SALT) Ltd is a 'spin out' company from the UK Ministry of Defence's, Defence Science and Technology Laboratory (Dstl) and was formed to make this military derived technology available to a wider market.



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