The scope of SMERAS includes abandonment from a surfaced submarine, survival after abandonment, survival in a dived Distressed Submarine (DISSUB) whilst awaiting rescue, and escape and rescue systems both onboard the submarine and as mobile assets.

To provide the crew of a DISSUB with SMERAS support requires highly specialised knowledge. BMT has Suitably Qualified and Experienced Personnel (SQEP) with both operational experience in submarines and the relevant technical knowledge to support this highly specialised area. We have specialists in Naval Engineering, Naval Architecture and Safety Management/Assurance.

**Proven Track Record**

Our reputation and expertise is recognised by defence authorities in the UK, Korea, Canada, Norway and Australia. Since 1993 BMT has been a core member of the UK industry team providing submarine engineering, safety and project support to the Royal Navy (RN) nuclear submarine flotilla. BMT has a proven track record of achievement, coupled with an unparalleled understanding of operational contexts and the need for safe, capable and available fleet assets.
Key SMERAS projects and benefits include:

Five-yearly Independent Review of SMERAS Capability for the UK Ministry of Defence (MOD):
- BMT reviewed SMERAS capability against User Requirements Documents (URD), within submarines and across rescue assets, organisation and doctrine;
- The review provided informed recommendations for use in sustaining and improving SMERAS capability.

Independent Safety Review (ISR) of RN SMERAS arrangements:
- The UK MOD required an ISR of the SMERAS Safety Management Arrangements, to assess compliance with the Capability Requirements as stated in the SMERAS URD;
- BMT provided an all-encompassing solution covering onboard submarine systems, rescue assets, personnel with responsibility for delivery of SMERAS capability, support facilities and procedures.

Support to NATO Submarine Rescue System (NSRS):
- BMT conducted an Independent Safety Review to provide assurance that NSRS had achieved Full Operating Capability (FOC). BMT applied its independent specialist expertise to assure the customer of NSRS operational safety during live operations;
- Key Hazard Area submission to the MOD for Naval Authority Certification of NSRS;
- Support to the NSRS prime contractor to develop an integrated safety case;
- NSRS Mother Ship (MOSHIP) Interface Safety Case.

Concept design for a Submarine Rescue Ship:
- BMT has developed a multi-role auxiliary vessel design, for use as a Mother Ship (MOSHIP) for Submarine Rescue Systems in conjunction with wider utility for towing, rescue and disaster relief / crisis management.

Submarine Escape and Rescue System (SERS) Safety Case Report for the Royal Australian Navy:
- In 2008 BMT completed safety assessments for each element of the SERS, covering the Submarine Rescue Vehicle, the Launch and Recovery System, Base operations, mobilisation and MOSHIP operation. The output was summarised in a Safety Case Report which provided an overall statement of the safety status of SERS.

Technical Services to SMERAS capability for RN Submarines:
- Platform integration of new emergency CO2 absorption system into RN submarines;
- Interface design and procedure test for survival stores transfer equipment;
- Independent safety assessment of RN submarine escape exercise;
- Safety cases for:
  - Submarine Escape Immersion Equipment;
  - HABETas® System;
- Stress analysis and structural assurance of a submarine escape tower;
- Design change management for the introduction of a new design Hood Inflation System (HIS) controller into RN submarines.

The depth of experience, independent status, technical skills in safety management, safety assurance, engineering and naval architecture we provide makes BMT the ideal choice for technical services in support of Submarine Escape, Rescue, Abandonment and Survival Systems.

For more information please call us, or visit our website.