



▲ Performance standards for recovery systems are a major focus for the SARRRAH project [ photo: Schwindt ]

# Help for the hypothermic

by Konstantin Tsolakis

A project to improve the survival chances of hypothermic casualties at sea is winning support and its creators are pressing for the introduction of performance standards for recovery systems at the IMO.

The Search and Rescue, Resuscitation and Rewarming in Accidental Hypothermia (SARRRAH) Project is the work of the medical workshop of the German Maritime Rescue Services and the department of anesthesiology of the Medical University of Schleswig-Holstein in Lübeck, Germany.

The organisations joined forces in the late 1990s to improve survival rates of victims of accidents at sea that result in hypothermia. SARRRAH aims to do that by creating fully effective rescue services based on the early treatment and transport of hypothermia cases from the incident site to a suitably equipped hospital.

Dr Wolfgang Baumeier of the Medical University Hospital of Schleswig-Holstein, explained to *SASI* that the not-for-profit project was conceived following the Baltic sinking of the ro-ro ferry *Estonia* in September 1994.

"Following the sinking, about 300 people, all wearing lifejackets, were in the water and in, or on, liferafts," he explained. "Ferries involved in the rescue were hardly able to pick people from the sea. Helicopters winched only those that had signs of life, in a vertical position.

Many died from circum-rescue collapse, resulting from severe hypothermia," he said.

Baumeier feels that more can be done to improve the survival chances of hypothermic casualties during SAR operations. "There was no equipment which could be used for resuscitation under rough conditions," he said.

According to Baumeier, people with hypothermia have a much better chance of successful resuscitation than critically ill people with normal body temperature, "but only if the hypothermia is sufficiently taken into consideration throughout rescue and medical interventions," he pointed out.

The SARRRAH project began in December 1998 with the help of the Ministry of Internal Affairs of Schleswig-Holstein in Kiel, Germany, and the ITF Seafarers' Trust in London. In short, the aim of SARRRAH is to strengthen each element of the rescue chain of people with hypothermia. "The chain involves searching, technical rescue procedures after recovery from the water, long-time resuscitation by trained laymen on board, development of simple, efficient medical equipment, transportation procedures to prepared hospitals equipped with heart-lung machines and intensive care units using the latest medical knowledge for re-warming people with accidental hypothermia."

For survival rates to improve, "procedures must be changed," Baumeier stressed. "They must be clear and realistic, based on

up-to-date, proven knowledge."

The medical element of the SARRRAH chain is "ready for use," Baumeier said; a strategy has been agreed and participating individuals and organisations understand their specific role. "Now, what we have to do is convince the maritime sector of SARRRAH's efficiency, and provide education and training."

The most difficult part will be to promote the project to ship-owners, Baumeier noted, "which is more difficult than convincing seafarers". In addition, hospital ships "must be equipped with equipment for safe long-time ventilation and CPR, which is missing at the moment."

SARRRAH procedures have already been taken on by the German Navy, the German Maritime Rescue Service and the German Coast Guard, Baumeier informed *SASI*. "We presented the project in Radiocommunications and Search and Rescue (COMSAR) conferences of the IMO and SARRRAH guidelines were included in the IMO Pocket Guide for Cold Water Survival."

SARRRAH is also being targeted at offshore companies, maritime rescue organisations, lifesaving organisations, ship-owners, and seamen's organisations, including welfare agencies, Baumeier said. "For example, Deutsche Seemannsmission, the German seamen's welfare organisation, is already partner of SARRRAH," he added.

There are currently 10 tertiary

care hospitals near the German coastline, which, under the guidance of SARRRAH, are capable of providing effective medical treatment of severe cases of hypothermia. Standardised documentation has been introduced, which ensures quality control, and a system established for understanding and managing emergencies and the medical treatment of accident victims – from the accident itself to the end of treatment in hospital.

A SARRRAH resuscitation kit has been distributed, containing a collection of well-researched, up-to-date items, to German Maritime Rescue service, SAR helicopters, the maritime department of the federal police and the country's navy.

"At the moment, our most important project is the introduction of performance standards for recovery systems mandatory for all SOLAS ships," Baumeier remarked. "This has been discussed in the latest sessions of the IMO Subcommittee on Ship Design and Equipment (DE53)." The issue should be advanced at DE54 in late October.

So far, the response of the shipping industry to SARRRAH has been very positive, Baumeier told *SASI*. "However, there have been some owners and officials who have not been convinced, saying the project would need to be part of mandatory international regulations before they invest in equipment, training and education," he concluded.