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## **Appendix**

Article and figures of the operational demonstration on MV LT Cortesia in the North Atlantic by courtesy of NSB magazine and BG Transport:

Wiebe, Bettina and Lange, Peer (2009), 'Rescue at Sea. The Unsolved Challenge. SAR scenario – looking over the shoulder of LT CORTESIA ...', in NSBmagazine, no 10, pp. 28–30.

## Rescue at Sea. The Unsolved Challenge

After the article on the rescue on CMA CGM BAUDELAIRE in No. 6 of our NSB-magazine describing how lives could be rescued with a net, I thought: »OK, great, let's now retrofit all ships with these rescue nets.« But that was jumping to conclusions, as at that time I still didn't know anything about the so-called »rescue collapse«.

Did you know that shipwrecked persons picked up by helicopter are rescued alive but then frequently die in the helicopter? A person rescued vertically basically risks a »rescue collapse«, which can lead initially to ventricular fibrillation and in the end to death after rescue. The danger with the changed circulation and metabolism situation is greatest with undercooling. There is the same risk when a person actively climbs on board as with a vertical helicopter rescue.

Emergency doctors have thus been calling for the horizontal rescue of a person from the water since the 1970s. In September 2006, the See-Berufsgenossenschaft Hamburg (Seamen's Accident Prevention and Insurance Association) set up a working group as a platform for developers of such systems.

Previously there was the announced accident on board HANSA BERGEN in June 2004, during which the second officer, Kerstin Bruns, was washed over board during a gangway control. After drifting for 20 hours in the Indian Ocean 200 nm off Mau-

ritius without personal rescue equipment, Kerstin Bruns managed on her own – as if by a miracle – to climb on board. She had initially failed to get on board via a pilot's ladder because of injuries and waves with a height of six metres or more.

The See-BG is calling for a regulation for obliging all ships worldwide to carry this rescue equipment at the IMO (International Maritime Organization). With this in mind, the prototype of the so-called RESCUE-STAR was tested on board our LT CORTESIA, and a film was made for screening for demonstration purposes at the IMO and as a training film at navigation schools.

Please read the report by Captain Peer Lange on the test on LT CORTESIA.

Bettina Wiebe

## SAR scenario – looking over the shoulder of LT CORTESIA ...

A heavy weather test of the new recovery system RLS RESCUE-STAR was planned on the container-ship LT CORTESIA (ex »Conti Cortesia«) for the Gulf of Biscay on a voyage from Hamburg to Singapore, departing Hamburg on January 23rd 2009. In addition to the crew, the developer of the RESCUE-STAR, Prof. Michael Schwindt, the film producer, Christian Boerner and me as a representative of the See-BG, Flag State Administration of Germany, were on board. The See-BG is the coordinator and had supported the project financially. With the live tests and the new film, we believe the recovery system project can be brought forward on the international working level of the IMO and be made more comprehensible for all parties concerned.

After leaving the European ports of Rotterdam and Thamesport on January 28th 2009, the shooting of the documentation began with nine cameras in the Gulf of Biscay. A dummy was put over board for recovering and hoisting back on deck simulating a »person over board« situation. The operation of



Figure 36: RLS – Rescue Star in a ring holder, lateral view



Figure 37: RLS – Rescue Star in stand-by position in a ring holder, after removal of the tarpaulin

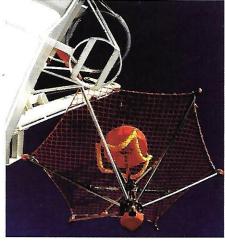


Figure 38: Lifted RLS - Rescue Star