

PERSONAL SURVIVAL AIDS - ANY ROOM FOR IMPROVEMENTS?

Arvid Pásche

SINTEF, Div. of Medical Technology

Address for reprints:

SINTEF, Div. of Medical Technology
N 7034 Trondheim-NTH
Norway

Survivors of maritime mishaps confront two acute, life-threatening problems: drowning and hypothermia. The problem has existed since man started travelling on sea, and has expanded with the increasing activity on the sea and also with travelling across the sea in airplanes and helicopters.

Several devices have been developed to increase the possibilities of surviving accidents at sea, the personal survival aids representing some of the most important ones.

Much of the development of the survival systems followed the Second **World War**, and the increasing offshore gas and oil exploration further contributed to the improvement of such systems, as new work situations and transportation methods were introduced.

Even though there is general agreement that drowning and hypothermia are the main life-threatening problems, there exist considerable differences in opinion about which is the most critical, and how the survival aid should be developed to best ensure the survival of man. The requirements for buoyancy material, thermal insulation material and splash protection for the immersion suits are typical areas of difference in opinion.

The disagreement further extends to how these systems should be evaluated with regards to the specified requirements. Today much of the discussion focuses on whether the evaluation should be performed manned or unmanned.

Even though such a discussion can have several positive elements, it may also result in taking some attention away from other critical elements of the survival aids. We may, for instance, have focused too much on how to prevent the immersion hypothermia, and not enough on the problems of the evacuation process from a ship, a rig, or a helicopter, and on the part of the survival system that should ensure the finding of people in the sea.

Recent reported results on life jackets may also indicate that too much attention has been given to the immersion suits lately, and that other survival aids and their required improvements have been overlooked.