

**The use of mandatory equipment on board cargo ships:
Recommendations from an outline report based on
research undertaken in the period 2012-2016**








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Making a difference: improving design and training associated with mandatory equipment

These recommendations emerge from the empirical data collected in this study. They are not intended to be prescriptive but to form the basis for what we hope will be constructive future discussions with different elements of the maritime sector. Our ultimate intention is for such discussions to lead to improvements in the design of mandatory equipment, and its use, at sea.

Three key, related, areas emerged in relation to this study of mandatory equipment: design issues; belief in the need for equipment ('buy in' by seafarers); and training. The findings which emerged in relation to each of these areas have resulted in the following recommendations:

- 1) Until such time as lifeboat On-Load Release and Retrieval Systems (OLRRS) are effectively modified to substantially increase the safety of lifeboats, fall prevention devices should be made **mandatory** (they are currently recommended).
- 2) Where fall prevention devices are utilised, companies should provide seafarers with appropriate training in their use.
- 3) Following modification of OLRRS in compliance with revised Life-Saving Appliance Code (LSA) sections 4.4.7.6.4 to 4.4.7.6.6, vessels which have already fitted fall prevention devices (FPDs) should continue to make use of them. Whilst compliance with the new regulations should make FPDs superfluous their continued use should increase the confidence of seafarers until such time as the new designs/modifications have been demonstrated to be fit for purpose and fears amongst seafarers have consequently subsided.
- 4) Regular maintenance of OLRRS by specialist licensed and certified personnel should be a mandatory requirement.
- 5) The space between rows of seats inside freefall lifeboats should be increased to allow for adequate leg-room for seafarers of all heights whilst they await rescue.
- 6) Freefall lifeboats should incorporate sufficient space to facilitate the storage of immersion suits and life jackets.
- 7) The weight/height allowance utilised in the design of freefall lifeboats should be increased to take account of the increasing size/weight of the overall population. Bringing the weight allowance into line with that utilised in the North Sea off-shore sector would seem appropriate and the average weight/height calculation should be reviewed at regular five-year intervals and adjusted in line with population weight/size trends.
- 8) Freefall lifeboats should be designed to further reduce the risk of spinal injuries. This may require the better design of seating (to provide greater shock absorption) and/or better restraint mechanisms including head-straps.
- 9) Liferrafts require modification to allow for unassisted boarding from the water by seafarers of different size, weight and strength.

- 10) Regulation should be adapted to require immersion suits to be the lightest weight possible whilst retaining thermal properties. Regular immersion suit maintenance and upgrading should be made mandatory in support of this.
- 11) Regulations should be adapted to require all immersion suits to incorporate five-fingered gloves for both hands.
- 12) Regulation should be adapted to require lifejackets to be of minimal bulk and weight whilst retaining buoyancy properties.
- 13) The design of GMDSS should be updated to remove redundant equipment and to maximise user-friendliness.
- 14) The effective use of OWS should be supported by continued vigilance in inspection practices and by employers providing filter replacements and permission to dispose of oily waste ashore.
- 15) Efforts should be made to ensure that ports provide oily waste reception facilities at low cost.
- 16) Training standards ashore require improvement in relation to life saving equipment such as lifeboats and liferafts. It is important that all such courses include practical 'hands on' experience.
- 17) Companies should be required to provide 24-hour shore-side technical support to seafarers in relation to the use of complex systems such as ECDIS.
- 18) Integrated bridge watch alarm systems should replace motion sensitive and manual re-set systems on all new ships.
