

GMDSS – time for an upgrade

The satellite-based GMDSS service has undoubtedly developed into an integral part of ensuring safety of life at sea, providing an efficient and dependable alerting service which can mean the difference between life and death when an accident occurs. However, with the latest IMO review of the system imminent, there is still room for improvement, writes Brian Mullan, BAMCOM International

The GMDSS has been with us for a little over 20 years, having taken some seven years to actually implement, 1992-1999.

The GMDSS amendments to the Safety of Life at Sea Convention (SOLAS) made it much more likely that a distress alert from a ship would be heard and acted upon. Indeed, the safety of seafarers now depends largely on alerting and communications via satellite, and this system has served the maritime community well.

The IMO is about to embark on a comprehensive review of the GMDSS, which undoubtedly will lead to a number of revisions of the ways in which distress and safety services are delivered to ships at sea. Now is the time to ask “what was missed last time round and what can we improve in the next revision?”

One area that could have been addressed more effectively last time round is that of communications from survival craft.

The GMDSS provides only for one-way

alerting via EPIRB from survival craft and for only very short-range voice communications by walkie-talkie. Radar transponders complete the GMDSS fitting on a modern-day survival craft.

The old, pre-GMDSS lifeboat radio, for all its shortcomings, provided a chance of 2-way communications between survivors and rescuers. Are we satisfied, therefore, that the current survival craft equipment addresses the actual needs of seafarers in distress?

Once a ship has been abandoned and survivors are in a lifeboat or inflatable raft, the need to communicate with the outside world is paramount.

The practical experience of survivors with respect to rescue at sea has shown that this need is not addressed at all by the current GMDSS. The needs of seafarers in survival craft are universal – to be rescued and rescued without delay.

In a typical, catastrophic distress situation, the crew have abandoned ship in a survival craft. Time permitting, Inmarsat and EPIRB alerts may have been sent out prior to actually abandoning ship and there may even have been time to receive an initial acknowledgement.

If not, the EPIRB will have been activated, either manually or by floating free. In a worst-case scenario, the vessel has been abandoned in a remote sea area and rescue may be several days away.

The distressed crew has absolutely NO means of knowing when or if help will arrive.

The morale of weakened and perhaps injured seafarers in such a situation could rapidly deteriorate to such a state that they lose the will to survive.

The survival craft is almost impossibly small in a large ocean; is drifting and may be in bad weather. The EPIRB is indicating that it is sending out alerts but, without any form of acknowledgement, the distressed crew can only hope that it has been heard and will be acted upon.

An EPIRB has to operate for 48 hours from the time it is first activated and rescues in mid-ocean may take longer.

Absolute knowledge that rescuers are on their way can save lives. Why is long-range voice communications not possible from survival craft in a modern marine world where instant communication via satellite is the norm?

To the non-marine world, this glaring lack of basic communications will seem unbelievable.

Mandatory equipment

The current GMDSS has addressed the technical aspects of distress alerting and



*Distressed crews need to know that help is on the way.
Photo: hebster commons.wikipedia.org*

now needs to consider the psychological impact on the seafarer of not being able to communicate effectively in a critical distress situation.

The provision of long-range voice communications between survival craft and maritime rescue coordination centres will speed rescue and allow for better management of all aspects of search and rescue.

Not least, it will boost the morale of the persons in the survival craft. It will also allow the families and friends of distressed seafarers to know that their loved ones are alive and that a rescue operation is under way.

The technical answer is simple and has been available for a number of years: a satellite hand-held telephone.

Such equipment has been proven under the worst-possible situations and in the remotest areas of the globe. Arctic and Antarctic explorers use them; serious

mountaineers would not leave base camp without them.

So, why are they not mandated for marine survival craft?

A minimum of one portable satellite telephone, ruggedised for marine use and capable of transmitting automatically its GPS position, should be mandatory for every SOLAS ship. Two spare batteries and a charger should also be part of the requirement.

The portable satellite phone can be used in a docking station for everyday, routine communications on board, thereby ensuring that its operational state remains known.

The cost of such equipment is modest, yet the implications for safety of life at sea are huge.

With the impending review and revision of the GMDSS, there has never been a better time to address the survival needs of seafarers. DS

About the Author

Brian Mullan now runs maritime safety and security consultancy, BAMCOM International Limited, having previously been Head of Maritime Safety Services at Inmarsat for twelve years.

Prior to that, he was Assistant Secretary-General with Comité International Radio-Maritime (CIRM) and, for ten years

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For more information on Mr Mullan's role in maritime safety and security, visit www.bamcom.co.uk



Making a satellite phone a mandatory GMDSS requirement would only create modest additional costs